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Impact Of Land Transportation Development On Tourist Interest In Revisiting Borobudur Temple

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Abstract:
Background*: Transportation plays a critical role in supporting the tourism sector, particularly for iconic Indonesian destinations such as Borobudur Temple. Challenges related to accessibility and the limited ease of obtaining transportation options remain major obstacles that could hinder the increase in tourist visits. This study aims to evaluate the impact of land transportation development on tourists' satisfaction and their intention to revisit.*
Materials and Methods*: A total of 113 domestic tourists from 2020 to 2023 were selected through purposive sampling. The research methods include an online survey and direct observation, with data analyzed using descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM).*
Results*: PLS-SEM analysis reveals that both transportation availability and service significantly affect satisfaction and revisit intention, with satisfaction serving as a significant mediator (P<0,05). Transportation service (travel time, cost, and quality) is identified as the most dominant factor affecting satisfaction and revisit intention.*
Conclusion: *Therefore, improving transportation service is crucial for enhancing tourist satisfaction and revisits to Borobudur Temple.*
Key Word: *Land Transport; Availability; Service; Tourist Satisfaction; Revisit Intention.*

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I. Introduction

Transportation is a system that facilitates the movement of people and goods from one place to another using various modes such as land, sea, and air. The main function of transportation in daily life is to connect regions, support community mobility, and facilitate the distribution of goods and services. In economic and social contexts, transportation plays a crucial role in driving growth, creating connectivity between remote areas and economic centers, and improving access to various facilities and public services [1]. It is a vital element in the tourism sector, facilitating the movement of tourists, and must be a priority for development. As a key component of accessibility, transportation not only allows tourists to reach their destinations but also facilitates travel between tourist spots. An efficient and reliable transportation system is a critical prerequisite for tourism development, particularly in the competitive race to attract tourists. Additionally, it is important to consider not only the quantity of transport modes but also service quality, punctuality, comfort, and safety. Factors such as the type, volume, fare, and frequency of transport modes contribute to the overall quality assessment of tourist destinations by serving their visitors [2]. Good transportation availability in a country can attract more tourists and effectively promote its tourism destinations [3].

Destinations with strategic locations are highly dependent on accessibility. Good accessibility has a high potential to increase tourist numbers. Many destinations with high development potential, however, may be hindered by inadequate accessibility. Thus, accessibility becomes a demand-driven factor that determines the number of visitors to a destination. A good transportation system can make the travel distance to and from tourist attractions seem shorter and reduce travel time. Furthermore, transportation includes supporting infrastructure such as roads, street lighting, and pedestrian spaces [2].

Borobudur Temple is globally recognized as one of Indonesia's iconic tourist destinations, being the world's largest Buddhist monument. Located in Magelang, Central Java, Indonesia, it was built in the 8th and 9th centuries during the reign of the Syailendra Dynasty. On September 13, 1991, Borobudur Temple was officially designated by UNESCO as a World Heritage Site due to its outstanding universal value [4]. Transportation to Borobudur Temple is one of the major issues affecting the number of tourist visits. The accessibility to this historical site is considered suboptimal compared to similar sites in other countries, such as Angkor Wat in Cambodia. While Angkor Wat has multiple transportation options that facilitate easy access, Borobudur faces challenges regarding travel convenience for tourists [5]. This discrepancy has impacted visitor numbers, with Angkor Wat experiencing higher visitation rates between 2020-2023 compared to Borobudur. The decline in

Borobudur's visitor numbers in 2022-2023 can be linked to the economic recovery post-COVID-19, which has significantly impacted tourism activities.

Previous studies linking transportation, tourism, and tourists as consumers have been widely conducted. The development of transportation infrastructure by the Pakistani government had a positive relationship with community participation in tourism[3]. The perceived benefits of tourism and community satisfaction played a mediating role in this relationship. Similarly, satisfaction has become a key component in mediating the quality of tourist transport and the tourism image in Macau[6]. Studies on transportation and tourism have highlighted several research gaps and areas for innovation. Prior research has evaluated tourist satisfaction with transportation facilities at Borobudur Temple but has not integrated indicators aligned with government objectives and strategies[7,8]. Moreover, there is a lack of deep exploration regarding how transportation service quality impacts tourist satisfaction and the intention to revisit.

This study aims to evaluate the impact of land transportation development on tourist satisfaction and revisit intention. The novelty of this research lies in its approach, which adopts indicators based on the government's strategic plans, including availability, accessibility, capacity, and service quality, and examines how these factors affect tourist satisfaction and revisit intention. The study is expected to provide new, deeper insights relevant to the development of transportation and tourism policies and offer practical solutions to increase tourist visits to Borobudur Temple.

II. Material And Methods

This research was conducted in the National Tourism Strategic Area (Borobudur Temple) located in Magelang, Central Java, Indonesia, over a period of three months, from March to July 2024. The population in this study consisted of domestic tourists visiting Borobudur Temple.

Study Design: Field Observation and Online Questionnaire.

Study Location: National Tourism Strategic Area (Borobudur Temple), Magelang, Central Java, Indonesia.

Study Duration: March–July 2024.

Sample size: 113 Respondents.

Sample size calculation: The sampling method in this study utilized purposive sampling, a technique where specific criteria are set [9]. The criteria for this study include domestic tourists who visited Borobudur Temple between 2020–2023. This aligns with the National Medium-Term Development Plan (RPJMN) for 2020–2024, ensuring that the respondents have experienced the impacts of the development programs. The minimum sample size calculation follows the Slovin formula, with a sample size of 113 respondents.

Subjects & selection method: Domestic tourists visiting Borobudur Temple, selected using purposive sampling.

Inclusion criteria:
1. Either sex
2. All age groups and professions.

Exclusion criteria:
1. Domestic tourists who visited Borobudur Temple between 2020–2023 using public transport.

Procedure methodology:

This study collected both primary and secondary data using several data collection techniques. Primary data was obtained through a survey method using a closed-end online questionnaire distributed via Google Forms. The questionnaire consisted of two parts: the first part included questions related to the respondent's identity, while the second part focused on assessing the tourists' opinions regarding the land transportation development program at Borobudur Temple, particularly in terms of availability and service, in alignment with the performance indicators outlined in Regulation of the Director General of Land Transportation No: KP.6050/PR.002/DRJD/2020 concerning the Strategic Plan of the Directorate General of Land Transportation for 2020-2024. Additionally, this study employed an observational method to collect data through direct observation of the land transportation conditions available to access Borobudur Temple. The observation focused on aspects of transportation availability and service, including accessibility, capacity, and the quality of service provided to tourists. Secondary data was gathered through a literature review, referring to documents from relevant ministries

or agencies, such as reports on land transportation development at Borobudur Temple and tourism data from the surrounding area.

The variables analyzed in this study include land transportation availability (X1), which includes accessibility and capacity of transport at Borobudur Temple. Additionally, service (X2) will measure travel time, costs, and the quality of available land transport. Tourist satisfaction (Y) serves as the main variable that reflects the level of tourist satisfaction with land transportation availability and service, also acting as an intervening variable. Lastly, revisit intention (Z) will measure the likelihood of tourists returning to visit Borobudur Temple. With this methodological procedure, the study aims to provide a comprehensive overview of the land transportation conditions and their impact on tourist experiences at Borobudur Temple.

Statistical analysis:

All data analyses were conducted using Microsoft Excel and SmartPLS 4 software. The analyses included: 1) Quantitative descriptive analysis to examine the socio-demographic characteristics of tourists/respondents and the yearly conditions related to land transportation development at Borobudur Temple and the number of tourists visiting, 2) Partial Least Squares Structural Equation Modeling (PLS-SEM), a structural equation modeling (SEM) approach based on components or variance. PLS represents an alternative approach shifting from covariance-based SEM to variance-based SEM [10,11]. PLS-SEM analysis was conducted to investigate the impact of land transportation availability and service at Borobudur Temple on revisit intention, mediated by satisfaction, and to identify the most dominant variables.

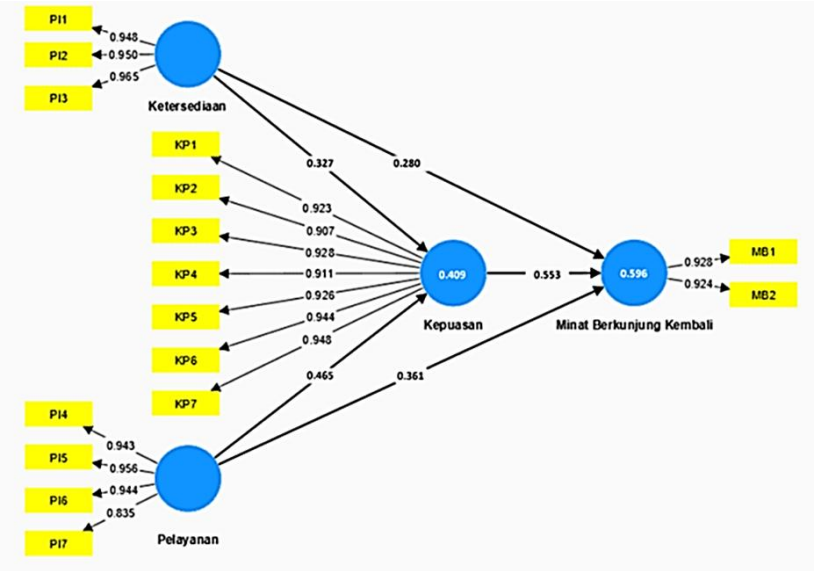

Image 1. The results of the PLS-SEM analysis using SmartPLS.

The availability variable (X1) is measured by three valid items, with outer loadings ranging from 0.941 to 0.964, indicating their validity in reflecting land transportation availability. The satisfaction and revisit interest variables each have seven and two valid items, respectively, with outer loadings greater than 0.70, with items Y.7 and Z.1 best representing the data variation for each variable.

III. Literature Review

Transportation

Transportation involves the movement of people or goods to specific destinations using various transportation modes, including land, sea, and air[12,13]. It encompasses infrastructure such as roads, railways, airports, and ports, along with vehicles like cars, trains, and airplanes, and operational systems including traffic control[14,15]. Transportation infrastructure plays a crucial role in facilitating the delivery of goods and mobility, significantly contributing to urban growth and development.

Borobudur Temple

Borobudur Temple, built in the 8th century during the Sailendra Dynasty, is a UNESCO World Heritage site in Central Java, symbolizing Javanese history, Buddhism, and art[16]. As a Super Priority Tourism Destination, it plays a crucial role in Indonesia's tourism and cultural preservation[17]. Attracting global visitors, especially from Europe and America, the temple's religious and historical significance, along with its intricate carvings, make it a potential global pilgrimage site[18,19].

The availability of transportation

Transportation availability includes factors like coverage, transport modes, operating hours, and service frequency[20]. It involves vehicles, roads, terminals, and management systems, impacting accessibility and capacity[21]. Improving public transport enhances accessibility, reduces travel time, and makes visiting destinations easier[22,23].

Transportation Services

Integrating public transport systems aims to provide easy, intermodal, and interconnected transit, reducing travel time, costs, and discomfort[24]. Key factors in the transport-tourism connection include accessibility to destinations and transport service quality, which must meet user expectations in security, comfort, and efficiency[23]. Factors influencing transportation choices in tourism include time, distance, safety, and cost[25], with service quality being critical to customer satisfaction and business performance[26].

Tourist Satisfaction

Tourist satisfaction is shaped by attractions, services, and overall experiences, influencing repeat visits and loyalty[27]. It is evaluated through key factors like accessibility, facilities, and activities[28]. Satisfaction depends on attractions and services, which drive tourism[29] and is influenced by emotional responses to experiences[30]. Key components of tourism products include attractions, facilities, and services[28,31].

Intention to Revisit

Revisit intention, influenced by satisfaction and loyalty, reflects a tourist's likelihood to return[32]. Loyalty depends on service quality, price perception, and overall experience[33]. Revisit interest varies in short-term, medium-term, and long-term categories, with new experiences replacing past ones over time[33].

IV. Result

Land Transportation Conditions at Borobudur Temple

Mass transportation services to the Borobudur area are provided through various networks, including intercity bus services (AKAP and AKDP) from Yogyakarta, Semarang, and Magelang (both large and small buses), city transportation (angkot in Magelang), and the Borobudur Damri Shuttle Bus from Tugu/Malioboro Train Station and Adi Sucipto Airport.

Intermodal Transport from Tugu/Malioboro Station:The intermodal transport service from Tugu/Malioboro Train Station to Borobudur is provided by Damri buses traveling from Tugu/Malioboro Station to Magelang and stopping at Palbapang. From Palbapang, passengers take a Damri Shuttle bus (Elf type) with a capacity of 10 people. The fare for this service from Tugu/Malioboro Station and Adi Sucipto Airport to Borobudur is IDR 75,000 per person.

Intermodal Transport from Yogyakarta International Airport (YIA): The Ministry of Transportation is preparing public transport from Yogyakarta International Airport (YIA) to Borobudur Temple via Bedah Manoreh, using Damri buses with a travel time of 2 hours and 30 minutes (82 km).

Intercity Transport from Giwangan Terminal: Intercity buses (AKAP) serve the route from Giwangan Terminal in Yogyakarta to Borobudur. The buses use medium-sized vehicles, with an average fare of IDR 20,000 per person. The route stops at the Borobudur terminal and does not pass through the entrance gate of the Borobudur Temple area. The average number of buses entering and leaving Borobudur Terminal is 20 buses per day. From the Borobudur Terminal to the temple area, tourists can walk or take horse-drawn carts (IDR 10,000-20,000) or rickshaws (IDR 10,000-15,000).

Intercity Transport from Pati: The transport network serves the route from Pati-Kudus-Semarang-Magelang-Yogyakarta with various fare categories. The intercity buses stop at the Blondo junction or Bojong/Palbapang, and passengers can continue their journey to Borobudur using city transportation from Magelang.

Urban Transport in the Purwomanggung Agglomeration Area: The urban transport planning for the Purwomanggung agglomeration area (covering Purworejo, Wonosobo, Magelang, Temanggung, and Magelang City) includes three main corridors: Corridor 1: Secang Terminal – Muntilan, with a route length of 42 km and a travel time of 90 minutes; Corridor 2: Secang – Parakan, with a travel time of 60 minutes and a distance of 23.5 km; Corridor 3: Borobudur Terminal – Kutoarjo Station, with a travel time of 100 minutes and a distance of 48 km.

Non-Scheduled Transport:Non-scheduled transport, such as rental vehicles ranging from small cars to shuttle buses, is available from various origins, including Yogyakarta, Solo, and Magelang. The Indonesian Ministry of Transportation issued Regulation No. 117/2018 regarding the operation of non-scheduled public transport.

Respondent Characteristics

Table 1. Respondent Characteristics (n= 113)

Characteristic	Criteria	Frequency	Percentage (%)
Gender	Male	53	47
	Female	60	53
Age	≤ 20 years	23	20
	21-30 years	58	51
	31-40 years	24	21
	41-50 years	6	5
	> 50 years	2	2
Residency (Island)	Jawa	76	67
	Sumatera	36	32
	Kalimantan	1	1
Education	Primary School (SD)	1	1
	Junior High School (SMP)	2	2
	Senior High School (SMA)	37	33
	Diploma I/II/III	12	12
	Diploma IV/Bachelor (S1)	47	47
	Postgraduate (S2/S3)	14	14
Occupation	Civil Servant (PNS)/Military/Police	37	33
	State-Owned Enterprises (BUMN)/Regional Enterprises (BUMD)/Private Sector	15	13
	Entrepreneur	17	15
	Student	25	22
	Other	19	17
Monthly Income	≤ Rp1.500.000	26	23
	Rp1.600.00-3.000.000	19	17
	Rp3.100.000 - Rp4.500.000	22	19
	Rp4.600.000 - Rp6.000.000	17	15
	> Rp6.000.000	29	26
Number of Visits to Borobudur Temple	≤ 2 times	75	66
	3-4 times	26	23
	5-6 times	8	7
	≥ 7 times	4	4
Visit Duration	< 1 day	52	46
	1 day	37	33
	> 1 day	24	21
Last Visit to the Temple (Year)	2020	29	26
	2021	5	4
	2022	24	21
	2023	55	49
Purpose of Visit	Culture/Education	16	14
	Recreation	95	84
	Religion	1	1
	Other	1	1
Mode of Transportation Used	Bus	62	42
	Train	24	16
	Airplane	17	11
	Private/Chartered Car	45	30

Source: Processed Data (2024).

Based on the survey of 113 Borobudur Temple tourists, the respondent profile reveals diverse characteristics with notable patterns. Most respondents were young adults (72%) from Java (67%), with a high level of education (47% holding a diploma or bachelor's degree). This suggests a strong interest in cultural tourism, particularly among young professionals. The survey also revealed that the primary purpose of the visit was recreation (84%), with buses (42%) being the most commonly used transportation mode. This indicates Borobudur's role as a popular destination with easy access for tourists.

Although most tourists visited Borobudur Temple 2 times or fewer (66%), there is potential for increasing repeat visits through various strategies. The survey also highlighted opportunities to extend the duration of visits, as nearly half (46%) of tourists spent less than one day at the site.

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Table 3. Outer Loading, Composite Reability, and Average Variance Extracted (AVE)

Variabel	Item	Outer Loading	Cronbach Alpha	Composite Reability	AVE
Availability	Accessibility (X1.1)	0,941	0,948	0,966	0,905
	Capacity (X1.2)	0,949			
	Integration (X1.3)	0,964			
Service	Travel Time (X2.1)	0,931	0,935	0,954	0,839
	Price (X2.2)	0,954			
	Quality (X2.3)	0,942			
	Supporting Facilities (X2.4)	0,831			
Satisfaction	Accessibility (Y.1)	0,921	0,972	0,977	0,858
	Capacity (Y.2)	0,902			
	Integration (Y.3)	0,922			
	Travel Time (Y.4)	0,916			
	Price (Y.5)	0,929			
	Service (Y.6)	0,946			
	Supporting Facilities (Y.7)	0,949			
Revisit Intention	Future (Z.1)	0,932	0,838	0,925	0,861
	Continuously (Z.2)	0,924			

Source: Processed Data (2024).

The availability variable (X1) is measured by three valid measurement items, with outer loadings ranging from 0.941 to 0.964. These values indicate that all three items are valid representations of land transportation availability, with item X1.3 having the highest outer loading (0.964), which shows that this item best reflects the variance in data measurement from the availability variable. Additionally, the reliability of the variable is considered acceptable, as evidenced by Cronbach's alpha and composite reliability values greater than 0.70. The convergent validity, indicated by the AVE value, also meets the criteria, with an AVE value of 0.905, which is above the threshold of 0.50, suggesting that 90.5% of the variance in the measurement items is explained by the variable. The four indicators of the service variable are valid in reflecting land transportation service measurements, with outer loadings ranging from 0.831 to 0.954. Indicator X2.2 has the highest outer loading (0.954), meaning that this item best reflects the variance in data measurement from the service variable. The reliability of this variable is also acceptable, as shown by Cronbach's alpha and composite reliability values exceeding 0.70. Furthermore, the convergent validity, indicated by the AVE value, meets the requirements, with an AVE of 0.839, which is greater than 0.50, demonstrating that 83.9% of the variance in the measurement items is explained by the service variable.

The satisfaction and revisit intention variables each have seven and two measurement items, respectively, all of which are valid in representing their respective variables, as evidenced by outer loadings greater than 0.70. The items that most reflect the variance in measurement for each variable are found in items Y.7 and Z.1. Additionally, the Cronbach's alpha and composite reliability values for both variables are greater than 0.70, indicating that the reliability of these variables is acceptable. Moreover, the AVE values for both variables exceed 0.50, with values of 0.858 and 0.861, respectively, indicating that 85.8% and 86.1% of the variance in the measurement items is explained by the variables. Next, discriminant validity evaluation was conducted by examining the Fornell-Larcker criteria, which are displayed in Table 4.

Table 4. Results of the Fornell and Larcker Criteria

	Satisfaction	Availability	Revisit Intention	Service
Satisfaction	0,926*			
Availability	0,584	0,951*		
Revisit Intention	0,737	0,557	0,928*	
Service	0,637	0,868	0,644	0,916*

Note: *= square root of the AVE value; other values represent correlations.
Source: Processed Data (2024)

This evaluation was conducted to ensure that the variables are theoretically distinct and empirically validated through statistical testing. The criterion used is that the square root of the AVE for each variable should be greater than the correlation between the variables. Based on the evaluation results shown in Table 4, all the tested variables have square root AVE values greater than the correlation values between the variables. This indicates that the measurement items for each variable are focused on measuring their respective variables and are weakly correlated with other variables, thus confirming the discriminant validity.

Table 5. Results of Cross Loading

Item	Availability	Service	Satisfaction	Revisit Intention
X1.1	0,941	0,837	0,583	0,535
X1.2	0,949	0,819	0,531	0,528
X1.3	0,964	0,819	0,55	0,526
X2.1	0,770	0,931	0,615	0,551
X2.2	0,803	0,954	0,616	0,655
X2.3	0,757	0,942	0,561	0,602
X2.4	0,855	0,831	0,536	0,545
Y.1	0,557	0,604	0,921	0,646
Y.2	0,476	0,528	0,902	0,613
Y.3	0,517	0,560	0,922	0,660
Y.4	0,594	0,676	0,916	0,682
Y.5	0,494	0,535	0,929	0,722
Y.6	0,567	0,599	0,946	0,743
Y.7	0,569	0,614	0,949	0,704
Z.1	0,515	0,638	0,683	0,932
Z.2	0,518	0,556	0,685	0,924

Source: Processed Data (2024)

In addition to using the Fornell-Larcker criteria, discriminant validity can also be assessed through the cross-loading values displayed in Table 5. Based on the results in Table 5, it is evident that discriminant validity is satisfied for all variables. This is demonstrated by the fact that the correlation between each item and its respective variable is higher than the correlation between that item and other variables. Therefore, these items effectively measure their intended variable with high validity while showing low correlations with other variables.

After evaluating the measurement model, the next step is to evaluate the structural model, which involves testing the hypotheses regarding the relationships between variables in the study. Hypothesis testing is conducted based on the t-statistic value or p-value. In this study, variables with a significant effect are identified by t-statistics greater than the critical value (1.98) or p-values less than 0.05. Additionally, the 95% confidence interval for the estimated path coefficients should be presented. To illustrate the strength of the effects, the f-square values are displayed, indicating the direct impact of variables at the structural level with the following criteria: 0.02 = small, 0.15 = moderate, and 0.35 = large[11]. Unlike direct effects, the level of mediation influence is shown using the upsilon v value, derived from the square of the mediation coefficient, with criteria: 0.02 = low, 0.075 = moderate, and 0.175 = high [34,35]. The complete results of hypothesis and mediation testing are displayed in Tables 6 and 7.

Table 6. Results of Hypothesis Testing

Hypothesis	Path Coefficient	p-value	95% Confidence Interval for Path Coefficient		t-statistic	f-square
			Lower Bound	Upper Bound		
H1: X1 → Z	0,280	0,035	0,037	0,587	2.459	0,023
H2: X2 → Z	0,361	0,022	0,074	0,699	3.967	0,156
H3: X1 → Y	0,327	0,026	0,152	0,626	2.868	0,167
H4: X2 → Y	0,465	0,000	0,241	0,704	3.568	0,364
H5: Y → Z	0,553	0,000	0,324	0,728	5.362	0,448

Source: Processed Data (2024).

Table 7. Results of Mediation Testing

Hipotesis	Path Coefficient	p-value	95% Confidence Interval for Path Coefficient		Upsilon v
			Lower Bound	Upper Bound	
H6: X1 → Y → Z	0,297	0,042	0,082	0,304	0,032
H7: X2 → Y → Z	0,402	0,002	0,126	0,537	0,066

Source: Processed Data (2024).

H1: The Availability (X1) of Land Transportation Has a Direct Impact on Tourists' Revisit Intention (Z) at Borobudur Temple

The first hypothesis (H1) in this study is accepted, indicating a direct effect of land transportation availability on the revisit intention of tourists at Borobudur Temple, with a path coefficient of 0.280, p-value of 0.035, and a 95% confidence interval ranging from 0.037 to 0.587. This suggests that any change in the availability of land transportation will enhance tourists' revisit intention to Borobudur Temple. However, the impact of land transportation availability on the revisit intention is relatively low at the structural level (f-square = 0.023).

H2: Land Transportation Service (X2) Has a Direct Impact on Tourists' Revisit Intention (Z) at Borobudur Temple

The second hypothesis (H2) in this study is accepted, indicating that land transportation service directly impacts tourists' revisit intention at Borobudur Temple with a path coefficient of 0.361, p-value of 0.022, and a 95% confidence interval between 0.074 and 0.699. This means that any improvement in transportation service will increase tourists' revisit intention with a moderate effect at the structural level (f-square = 0.156).

H3: The Availability (X1) of Land Transportation Has a Direct Impact on Tourist Satisfaction (Y) at Borobudur Temple

Based on the hypothesis testing results, the third hypothesis (H3) in this study is accepted, indicating a direct impact of land transportation availability on tourist satisfaction at Borobudur Temple. This is evidenced by a path coefficient of 0.327, p-value of 0.026, and a 95% confidence interval between 0.152 and 0.626, meaning that any improvement in service will increase tourist satisfaction. Furthermore, the effect of this service is moderate at the structural level (f-square = 0.167).

H4: Land Transportation Service (X2) Has a Direct Impact on Tourist Satisfaction (Y) at Borobudur Temple

The fourth hypothesis (H4) is accepted, indicating that land transportation service has a direct impact on tourist satisfaction at Borobudur Temple, as shown by a path coefficient of 0.465, p-value of 0.000, and a 95% confidence interval between 0.241 and 0.704. This means that any changes in land transportation service will increase tourist satisfaction at Borobudur Temple. The effect is significant at the structural level (f-square = 0.364).

H5: Tourist Satisfaction (Y) Has a Direct Impact on Revisit Intention (Z) at Borobudur Temple

Based on the hypothesis testing results, the fifth hypothesis (H5) is accepted, showing that satisfaction has a direct impact on tourists' revisit intention at Borobudur Temple with a path coefficient of 0.563, p-value of 0.000, and a 95% confidence interval between 0.324 and 0.728. Changes in satisfaction significantly increase tourists' revisit intention at Borobudur Temple, with a high effect (f-square = 0.448).

H6: The Availability (X1) of Land Transportation Has an Indirect Impact on Revisit Intention (Z) Mediated by Satisfaction (Y) at Borobudur Temple

The sixth hypothesis (H6) in this study is **accepted**, where satisfaction, acting as a mediating variable, has an indirect effect of land transportation availability on tourists' revisit intention at Borobudur Temple, with a path coefficient of 0.297, p-value of 0.042, and a 95% confidence interval between 0.082 and 0.304. However, at the structural level, the mediating role of satisfaction is relatively low (upsilon v = 0.032).

H7: Land Transportation Service (X2) Has an Indirect Impact on Revisit Intention (Z) Mediated by Satisfaction (Y) at Borobudur Temple

The seventh hypothesis (H7) in this study is accepted. Satisfaction, as a mediating variable, has an indirect effect on land transportation service and tourists' revisit intention at Borobudur Temple, with a path coefficient of 0.291, p-value of 0.002, and a 95% confidence interval between 0.126 and 0.487. The structural level effect of satisfaction is considered low (upsilon v = 0.066).

Model Fit Evaluation

PLS is a variance-based SEM analysis aimed at testing theory models, focusing on prediction studies. Therefore, several metrics are developed to indicate whether the obtained model is acceptable, such as R-square, Q-square, and Standardized Root Mean Square Residual (SRMR). The model fit values for this study are shown in Table 8.

Table 8. R square, Q square Value, and *Standardized Root Mean Square Residual* (SRMR)

Model	R square	Q square	SRMR
Satisfaction	0,409	0,381	0,051
Revisit Intention	0,596	0,388	

Source: Processed Data (2024).

R-square represents the proportion of variance in the endogenous variables explained by other endogenous or exogenous variables in the model. Chin (1998) classifies R-square values as low = 0.19, moderate = 0.33, and high = 0.66. Based on the model fit results in Table 8, the combined influence of land transportation availability and service on tourist satisfaction at Borobudur Temple is 0.409 (moderate). Additionally, the combined influence of availability, service, and satisfaction on revisit intention is 0.596 (moderate). Moreover,

the combined effect of availability, service, and satisfaction on tourists' revisit intention at Borobudur Temple is also moderate, with an R-square value of 0.596, or 59.6%.

Q-square represents the prediction accuracy, i.e., how well changes in exogenous or endogenous variables can predict the endogenous variable. This measure serves as validation in PLS to assess the model's predictive relevance. Q-square values are qualitatively interpreted as 0 (low impact), 0.25 (moderate impact), and 0.50 (high impact)[11]. Based on the model fit results in Table 21, the Q-square values for satisfaction and revisit intention are 0.381 and 0.388, respectively, which are both greater than 0.25, indicating moderate predictive accuracy. Another model fit measure is the Standardized Root Mean Square Residual (SRMR) [36]. SRMR as a model fit measure indicates the difference between the correlation matrix of the data and the correlation matrix estimated by the model. Based on the model fit results in Table 8, the SRMR value for this study is 0.051, which is considered a good fit as the value is below the threshold of 0.08 [11] .

V. Discussion

H1: The Availability (X1) of Land Transportation Has a Direct Impact on Tourists' Revisit Intention (Z) at Borobudur Temple

This study uses three dimensions to describe land transportation availability: accessibility, capacity, and integration. The availability of facilities is an element of a destination that allows tourists to stay at the destination and enjoy or participate in the attractions offered[37]. Additionally, the availability of transportation infrastructure is one of the factors that encourage people to embark on a tourism journey, where the availability of such facilities provides comfort during the travel to a tourist destination [18]. In line with this study, [38] concluded that the facilities, including land transportation infrastructure, have a direct impact on tourists' loyalty/revisit intention to a tourist destination.

H2: Land Transportation Service (X2) Has a Direct Impact on Tourists' Revisit Intention (Z) at Borobudur Temple

This study provides four dimensions to describe land transportation service: travel time, cost, quality, and supporting facilities. Customer service, in this case, for tourists, is a critical aspect in providing overall satisfaction and strong loyalty to transportation services[39]. In line with this, travel time, cost, and service quality are closely related and directly influence loyalty/revisit intention to use transportation services [40–45].

H3: The Availability (X1) of Land Transportation Has a Direct Impact on Tourist Satisfaction (Y) at Borobudur Temple

Satisfaction is defined as the overall experience of service users compared to previously set expectations [46]. Transportation availability has been reported as an important factor influencing tourist satisfaction with a destination. The availability of transportation facilities is positively related to tourism activities [47,48], which enhances the flow of tourism development [3,49]. In line with this research, the availability of facilities, including transportation, can trigger tourist satisfaction[50]. This finding is supported by other research that dimensions of availability, such as accessibility, capacity, and integration, can be determining factors for tourist satisfaction[51].

H4: Land Transportation Service (X2) Has a Direct Impact on Tourist Satisfaction (Y) at Borobudur Temple

Land transportation services, including travel time, cost, quality, and supporting facilities, has been identified as factors affecting satisfaction [39]. In line with this study, travel time and transportation quality have been reported as closely related to the formation of transport user experiences and influence satisfaction[52–55]. Additionally, for many users, transportation cost is a key determinant of their satisfaction with the service [39]. Therefore, transportation providers should offer various tickets with different pricing structures to meet user needs[45].

H5: Tourist Satisfaction (Y) Has a Direct Impact on Revisit Intention (Z) at Borobudur Temple

This study proves that satisfaction has a direct impact on loyalty/revisit intention. This finding strengthens previous studies that reported similar results. Nelloh et al. (2019) reported that travel satisfaction influences tourists' loyalty/revisit intention to a tourist destination, with about 60% of travel satisfaction explaining loyalty. Additionally, this study affirms the role of transportation satisfaction in recent years [57–60].

H6: The Availability (X1) of Land Transportation Has an Indirect Impact on Revisit Intention (Z) Mediated by Satisfaction (Y) at Borobudur Temple

These results suggest that land transportation availability (accessibility, capacity, and integration) has an indirect effect on tourists' revisit intention, with satisfaction mediating the positive relationship between the two. Both accessibility and capacity have been reported to affect satisfaction and user loyalty[43,52–55]. This result

emphasizes that satisfaction increases the impact of availability on loyalty. Therefore, tourists who give positive ratings to the availability of transportation will have higher satisfaction and show greater interest in revisiting Borobudur Temple. In this study, the mediating role of satisfaction based on the upsilon v value (0.066) is considered low, suggesting the need for innovation in land transportation availability to enhance tourist satisfaction, which can create a stronger revisit intention to Candi Borobudur[35].

H7: Land Transportation Service (X2) Has an Indirect Impact on Revisit Intention (Z) Mediated by Satisfaction (Y) at Borobudur Temple

These results indicate that transportation service factors, such as travel time, cost, quality, and supporting facilities, indirectly influence tourists' revisit intention, with satisfaction mediating the positive relationship between service and revisit intention. Satisfaction mediates the positive relationship between transportation quality and tourists' revisit intention, and this study consistently reinforces the other findings [6,61,62]. Therefore, tourists who rate transportation service positively will be more satisfied and show a greater intention to revisit Borobudur Temple compared to those who do not have positive assessments of the service. In this study, the mediating role of satisfaction based on the upsilon v value (0.066) is considered low, indicating that new innovations in land transportation service are needed to enhance tourist satisfaction and foster stronger revisit intentions to Candi Borobudur[35].

VI. Conclusion

The availability of land transportation has a direct impact on tourists' revisit intention to Borobudur Temple. While its effect is structurally low, improvements in transportation availability, such as accessibility, capacity, and integration, can stimulate tourists' intention to return. Land transportation service has a direct and significant effect on revisit intention, with aspects such as travel time, cost, quality, and supporting facilities showing a moderate structural effect, reinforcing the notion that enhancing service quality can boost tourist loyalty. Land transportation availability also directly impacts tourist satisfaction, with good availability, including accessibility and capacity, playing a crucial role in enhancing the overall tourist experience and satisfaction at Borobudur Temple. Transportation service quality has a significant and high impact on tourist satisfaction. Factors like travel time, service quality, and competitive pricing are key drivers of tourist satisfaction, which in turn strengthens loyalty to the destination.

Tourist satisfaction significantly influences the intention to revisit Borobudur Temple. High satisfaction levels reinforce loyalty and revisit intentions, highlighting that positive experiences during the visit are key determinants for tourists' decisions to return. Tourist satisfaction mediates the effect of land transportation availability on revisit intention, although the mediating role is relatively low. This suggests that adequate transportation availability must be supported by innovations that enhance tourist satisfaction. Land transportation service quality, through satisfaction, also influences tourists' intentions to revisit. Although the mediating effect of satisfaction is low, improving service quality, including upgrading facilities and supporting infrastructure, is essential to enhance the tourist experience and create stronger revisit intentions.

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