



Literacy of si Anteng Application and Service Quality Aspects in Measuring Passenger Satisfaction of BRT Trans Jateng Route from Bawen Terminal to Tawang Station

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Abstract

This research aims to analyze the hypothesis consisting of the influence of digital literacy, tangibility, assurance, reliability, responsiveness, and empathy on Passenger Satisfaction of BRT Trans Jateng Route from Bawen Terminal to Tawang Station. Sampling technique using purposive sampling with 65 respondents which is passengers with the criteria of having si Anteng application and having accessed its features to purchase tickets, view routes and other features and having been active for at least one month on the BRT Trans Jateng route Bawen-Tawang Station. Data analysis using multiple regression with the SPSS version 25. The research results indicate that digital literacy has a positive and significant effect on satisfaction, tangibility has a positive and significant effect on satisfaction, assurance has a positive and significant effect on satisfaction, reliability has a positive and significant effect on satisfaction, responsiveness has a positive and significant effect on satisfaction and empathy has a positive and significant effect on satisfaction.

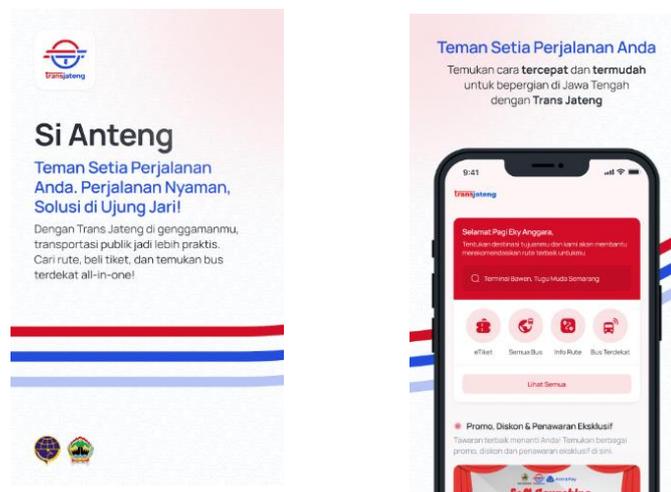
Key words: Bawen-Tawang Station, BRT Trans Jateng, Digital Literacy, Passenger Satisfaction, Service Quality,

1. Introduction

The development of information technology has been rapidly transformed from a conventional society to be a digital society. People have become accustomed in conducting online transactions by using gadgets, smartphones, desktop and the others. These are seems to be very enjoyable, efficient and effective [1]. The growing need for these media also encourages business actors, including the government, to create simple and easy accessible applications. In this case including si Anteng application for users or passengers of BRT Trans Jateng, which was launched since 2019. The Central Java Regional Government has been operating Trans Jateng Bus since 2017 with a route from Bawen Terminal to Tawang Station and vice versa.

Based on data from the Central Java Transportation Center of the Central Java Provincial Transportation Agency, the number of fleets on this corridor is 28 units with operational hours

starting at 05.00 WIB to 20.50 WIB where the last departure from the TIC (Tourist Information Center) is at 19.30 WIB and Bawen Terminal at 19.10 WIB. The number of passengers from 2017 to 2023 was recorded at 23,672,113 people and the latest data for January to May 2025, the number of passengers has reached 3,382,699 people. Passengers include: the general public (with a fare of Rp. 5,000), students, laborers and veterans (with a fare of Rp. 2,000) [2].



Source: jatengprov.go.id (2025)

Figure 1. Si Anteng Application

Seeing of the society enthusiasm, it can be said that Si Anteng application will be helping users or passengers by accessing Trans Jateng BRT. Furthermore, this study also includes aspects of service quality where service is the main thing in the service sector. Passengers will feel comfortable and satisfied if the service provided is adequate. Aspects of service quality include: Tangibles, Reliability, Responsiveness, Assurance and Empathy. Therefore, the problem of this study is how the literacy of Si Anteng and aspects of service quality impact the satisfaction of Trans Jateng BRT user or passenger route from Bawen Terminal to Tawang Station.

Research on the literacy of using the BRT Trans Jateng application and its impact on user satisfaction has not been widely studied, making this a gap for researchers to measure the level of user satisfaction, specifically among passengers. Some studies have indeed measured satisfaction, but they did not involve applications like si Anteng, as in the research [3] which reported an overall satisfaction rate of 82 percent for BRT Trans Jateng Purwokerto – Purbalingga route users. As for the research [4] using the fuzzy logic method, it showed negative results for the indicators of service quality, leading to the conclusion that the service quality of BRT Trans Jateng corridor 1 in Surakarta has not met user satisfaction.



2. Method

This study uses multiple regression analysis techniques where the independent variables are digital literacy (X1) and service quality consisting of tangibles (X2), reliability (X3), responsiveness (X4), assurance (X5) and empathy (X6). The sampling technique uses a purposive sampling method involving 65 respondents, namely passengers with the criteria of having used the Anteng application and having accessed its features to purchase tickets, view routes and other features and having been active for at least one month on the BRT Trans Jateng route Bawen-Tawang Station. The measurement indicator uses a Likert scale of 1-5 from strongly disagree to strongly agree.

Digital Literacy is a set of skills required by 21st Century individuals to use digital tools to support the achievement of goals in their life situations (Fu, 2013). Digital Literacy variable (X1) is measured using the following three indicators including: (1) Ability to use digital devices; (2) Understanding of digital information and (3) Confidence in using digital platforms.

Tangible is the appearance of physical facilities, equipment, personnel and communication materials (Parasuraman *et al.*, 1988). Tangible variable (X2) is measured using the following indicators including: (1) Cleanliness of buses and terminal facilities; (2) Physical condition of buses (seat comfort, air conditioning, clean windows) and (3) Availability of visual information and promotional media on buses and in terminals.

Assurance is the knowledge and courtesy of employees and their ability to inspire trust and confidence (Parasuraman *et al.*, 1988). Assurance variable (X3) is measured using the following indicators including: (1) Knowledge and competence of bus staff; (2) Polite and friendly attitude of staff towards passengers and (3) Feeling of safety and trust when using BRT bus services.

Reliability is the ability to perform the promised service dependably and accurately (Parasuraman *et al.*, 1988). Reliability variable (X4) is measured using the following indicators including: (1) Punctuality of bus departure and arrival; (2) Consistency of service without technical disruptions and (3) Ability to fulfill service promises (e.g., no sudden cancellations).

Responsiveness is the willingness to help customers and provide prompt service (Parasuraman *et al.*, 1988). Responsiveness variable (X5) is measured using the following indicators including: (1) Speed of staff in responding to passenger complaints; (2) Ease of getting help when problems arise and (3) Quick and clear information regarding schedules and routes.

Empathy is the provision of caring, individualized attention to customers (Parasuraman *et al.*, 1988). Empathy variable (X6) is measured using the following indicators including: (1) Attentiveness of staff to the special needs of passengers (elderly, disabled); (2) Willingness to provide personalized service when needed and (3) Concern for passenger comfort and safety.

3. Result and Discussion

3.1. Presenting the Results

Table 1. t-Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-.421	.512		-.021	.967		
Digital_Literacy	.316	.090	.332	3.522	.002	.690	1.454
Tangible	.302	.114	.287	2.642	.012	.617	1.625
Assurance	.224	.096	.241	2.329	.025	.725	1.388
Reliability	.176	.078	.228	2.244	.019	.775	1.297
Responsiveness	.238	.101	.217	2.367	.029	.645	1.552
Empathy	.201	.089	.209	2.258	.034	.709	1.416

a. Dependent Variable: Satisfaction

Source: Data processed (2025)

All independent variables (Digital Literacy, Tangible, Assurance, Reliability, Responsiveness, and Empathy) have positive and statistically significant coefficients ($p < 0.05$). This suggests that each factor contributes positively for increasing Satisfaction.

Table 2. F-test Result

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.878	6	3.313	34.273	.000 ^b
	Residual	5.602	58	.097		
	Total	25.480	64			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Digital_Literacy, Tangible, Assurance, Reliability, Responsiveness, Empathy

Source: Data processed (2025)

The ANOVA table indicates that the regression model is statistically significant ($F(6,58) = 34.273, p < 0.001$). This confirms that the six predictors simultaneously explain a significant portion of the variance in Satisfaction.

Table 3. Determination Coefficient (R^2) Result



Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.884 ^a	.780	.757	.312	2.077

a. Predictors: (Constant), Digital_Literacy, Tangible, Assurance, Reliability, Responsiveness, Empathy

b. Dependent Variable: Satisfaction

Source: Data processed (2025)

The regression model shows a strong correlation ($R = 0.884$) with an R^2 of 0.780, indicating that 78% of the variation in Satisfaction is explained by the six independent variables. The Adjusted R^2 of 0.757 confirms a good model fit after adjusting for the number of predictors.

3.2. Create a Discussion

Based on partially t-test it can be said that digital Literacy (X1), tangible (X2), assurance (X3), reliability (X4), responsiveness (X5) and empathy (X6) positively and significantly toward satisfaction of BRT Trans Jateng Passengers. Based on simultaneously F-test it can be said all variables together positively and significantly toward satisfaction of BRT Trans Jateng Passengers.

Based on determination coefficient test Chin (1998) stated that the Adjusted R-square value can be categorized as strong if it is greater than 0.67, moderate if it is greater than 0.33 but less than 0.67, and weak if it is greater than 0.19 but less than 0.33. Based on this view, a value of 75.7 percent is considered strong and therefore acceptable in this study.

4. Conclusion

The theoretical urgency of this research is expected to contribute to the development of science, particularly to the body of knowledge on digital literacy, considering that information technology has now become an integral part of society's life, which continues to grow with all its ease and accessibility. Furthermore, this research also involves the aspect of service quality, considering the research object is in the service sector, specifically public transportation, which is an important part of regional income.

Practically, this research is expected to provide input for Trans Jateng management in delivering adequate services, in addition to the element of technological development thru the si Anteng application, which is intended to make it easier for the public to access all information related to BRT Trans Jateng.



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