Analysis of the Effect of Tourism Bus Service Quality on Tourist Visit Interest: A Solution for the Effects of the COVID-19 Pandemic

Momon[1][✉], Vivi Ukhwatul Khasanah Masbiran[1], Afriyanni[2],
Imam Radianto Anwar Setia Putra[4], Herie Saksono[4], Sekar Nur Wulandari[3],
Suci Emilia Fitri[4], Bachtari Alam Hidayat[5], Rury Febrina[6],
Melati Ayuning Pranasari[4], Virgiawan Listanto[4], Adhityo Nugraha Barsei[4],
Tania Andari[4], and Evi Maya Savira[4]

[1] Research and Development Agency of West Sumatra Province, Padang, Indonesia
abufadhil.2005@gmail.com
[2] Research and Development Agency of Pekanbaru City, Pekanbaru, Indonesia
[3] Planning, Research, and Development Agency of Riau Islands Province, Tanjungpinang, Indonesia
[4] The National Research and Innovation Agency of the Republic of Indonesia, Bogor Barat, Indonesia
[5] Postgraduate of Universitas Tamansiswa Palembang, and Development Planning, Research, and Development Agency of Palembang City, Palembang, Indonesia
[6] Departement of Governmental Studies, Universitas Riau, Riau, Indonesia

Abstract. The government, through the Ministry of Transportation of the Republic of Indonesia has allocated a National Economic Recovery (PEN) fund as a response to the impact of the COVID-19 pandemic which has caused a decrease in tourist visits. The funds are provided for the procurement of facilities and infrastructure that support the tourism sector. One of the embodiments of this program is the plan to procure a tour bus that will take tourists from one tourist attraction to another. To analyze whether this program is the right decision in increasing the number of tourist visits, it is necessary to conduct a study that measures the influence of prospective tourists' perceptions of the quality of tour bus services on the interest of tourist visits. The measurement of prospective tourists' perceptions of the quality of tour bus services is carried out by asking questions regarding the dimensions of the quality of tour bus services, namely waiting time, walking distance to the shelter, travel time, speed and cost/sacrifice to get service. While the interest of tourist visits is measured by asking questions related to tourist intentions, tourists' desires and tourist plans to visit tourist objects that provide tourist bus services. The technical analysis of the data in this study is in the form of multiple regression using STATA 14. Furthermore, the sample in this study is the general public who have an interest in traveling. It is hoped that the results of this study will provide information about the reasons tourists are interested in visiting a tourist attraction related to the tourist's perception of the quality of tour bus services. Furthermore, these results will be utilized by tour bus service providers to provide the best quality for their consumers.

Table 1. Archipelago Tourist Visits in West Sumatera Province

Archipelago Tourist Visits in West Sumatera Province (persons)				
2017	2018	2019	2020	2021
77,838	807,307	816,914	80,418	47,858
76	0	7	68	86

Source BPS West Sumatera

Keywords: Tourism Transportation Service · Interest in Visiting · Quality of Transportation Service

1 Introduction

West Sumatera has a high tourism potential. Tourism generates substantial income for communities, regions and countries [1]. Before the pandemic, the Central Statistics Data of West Sumatera) showed an increase in the number of tourists visiting each year to West Sumatera. Tourists not only visit tourist areas because of their beautiful nature but can also do various things which includes but not limited to: cultural, (dance, singing, and souvenirs), religious, shopping, culinary, old town, museum, and heritage tours. The expansion of the tourism business is accompanied by the expansion of a distinct culinary creative industry, which serves as a magnet for tourism promotion [2]. As tested during the pandemic period of 2020–2021, the tourism sector experienced a decline in tourist visits due to restrictions on crowded places and restrictions on travel.

In 2022, the pandemic has begun to decline, which is marked by a decrease in the number of Covid patients and the opening of tourist attractions. To regenerate public interest in tourist visits, it is necessary for the government and the private sector to take steps to improve tourism bus facilities. The following are tourist visits in West Sumatera Province in 2017–2021:

Table 1 illustrates the number of tourist visits in West Sumatera Province before and after the pandemic.

Based on the Law of the Republic of Indonesia Number 10 of 2009 concerning Tourism, it is stated that the tourism business is an effort to provide goods and/or services to meet the needs of tourists and organize tourism. The tourism business includes tourist attractions, tourism areas, tourist transportation services, tourist travel services, food and beverage services, providing accommodation, organizing entertainment and recreational activities, and organizing meetings, intensive trips, conferences, and exhibitions. Guided by the tourism law, the support of city tour buses to increase tourist interest is very important. In order for a tourist area to be attractive, the support of various parties and various aspects must be carried out. Further support must also be given in terms of the existence and convenience of tourist facilities such as buses, minibuses, tourist cars, and access to infrastructure that meets standards, to and from tourist areas. The safety and comfort of transportation are necessary for minimizing the waste of road use due to the increasing volume of vehicles [3]. So, the government and the private sector can work

together to carry out quality and attractive tourism activities, which of course has a very good impact on the preservation of local wisdom and the community's economy.

City tour buses can support increased tourist interest, if the city tour buses themselves attract tourists to use them. In order to attract a city tour bus, it must have good performance, starting with easy access to its existence, easy to find information on schedules and operational routes and fares, operational schedules on time, affordable fares, drivers running buses safely and comfortably and not too fast, tour guides provide satisfactory service in terms of presentation and knowledge of all tourist objects that are passed or visited, tour buses are safe from crime, to fast and friendly handling or follow-up to customer complaints. For this reason, the performance of tourist buses needs to be evaluated, both in terms of operations and in terms of the opinions of tourists who are served.

The way to improve service quality is to try to know and understand customer desires. Quality service occurs when the service or product (outcome) felt by the customer equals or exceeds the customer's expectations, the service is said to be of high quality.

2   Method

This research uses quantitative research methods. The population in this study is the general public who live in West Sumatera Province and have an interest in traveling, while the sample was selected incidentally with predetermined criteria according to the research objectives. The number of samples taken in this study amounted to 100 respondents. The number of samples refers to the opinion of Roscoe (1982, p. 253) in Sugiyono (2018, pp. 90–91), which states that if the research will conduct multivariate analysis (correlation or multiple regression for example), then the number of sample members is at least 10 times of the number of variables studied [4]. There are 6 variables in this study, so the minimum sample is 60. Therefore, the number of samples has met the minimum sampling limit.

Data collection techniques are carried out by distributing questionnaires:

Validity Test

The validity test aims to determine the accuracy of the measuring instruments used in the study. The validity test used for this study is the Pearson's product moment correlation with a significance value of < 0.05.

Reliability Test

Reliability test is used in this study to test the consistency of respondents' answers to each question item. Reliability test is using Cronbrach's Alpha statistical test with a value > 0.6.

Classic Assumption Test

a. Normality test using the Kolmogorov-Smirnov test with a significance level of 0.05.
b. Multicollinearity test to test whether there is a correlation/relationship between variables. Multicollinearity test using tolerance value > 0.1 and Variation Inflation Factor (VIF) < 10 and tolerance value.

c. Heteroscedasticity test to test whether the regression model has variance inequality from residual observations to other observations with a significance level of 0.5.

Data Analysis Technique

Data analysis in this study are as follows:

a. Descriptive Analysis, using descriptive statistics to describe the characteristics of respondents and the variables used.
b. Multiple Regression Analysis is used to predict changes in the value of the dependent variable when the values of two or more variables as predictors are changed (down/up). Multiple linear regression analysis in this study was conducted to determine the relationship between the variable interest in visits (Y1) and service quality variables consisting of 5 variables, namely Realibility (X1), Responsiveness (X2), Assurance (X3), Empathy or Attention (X4), Tangible or Physical evidence (X5).
c. Analysis of the Coefficient of Determination (R2) to measure the model's ability to explain the dependent variable. The value of adjusted R^2 that is getting bigger or closer to 1 means that the independent variables (X) are able to provide almost all the information needed to predict the variation of the dependent variable (Y). Vice versa
d. The F test is to find out whether all the independent (free) variables included in the model have a joint effect on the dependent (bound) variable.

The t test is used to find out how far the influence of one explanatory/independent variable individually in explaining the variation of the dependent variable. This test is used to partially test the regression coefficient of the independent variable.

Research Design

Attributes of service quality and interest in tourist visits can be seen in Table 2.

3   Results and Discussion

3.1   Result

Characteristics of Respondents

The population of this study is composed of 135 respondents. Based on the type of work among the population, Sumatera, the dominant occupation is civil servant which composes 32.59% of the sample population, and the other dominant population is composed of students by 33.33%. Most of the respondents are aged 18–28 years, which is 51.47% and at least 59–70 years old, which is 2.94%.

Furthermore, based on the amount of income that the respondent gets every month, the data shows that respondents with an income of Rp. 5,000,001–10,000,000 per month occupy the highest percentage of 33.09% and the least are respondents with an income level above Rp. 10,000.000 which is 2.94%.

Table 2. Attributes of service quality and interest in tourist visits

Dimension	Attribute	Variable
Reliability (X1)	The tour bus crew serves precisely and quickly	X1.1
	The speed of service for the tourism bus crew if there is too much demand	X1.2
	The tour bus crew pays special attention to individuals	X1.3
	The tour bus crew helps put things in the trunk	X1.4
	The tour bus crew provides solutions when something goes wrong	X1.5
	The driver's ability to drive is very thorough	X1.6
Responsiveness (X2)	The tour bus crew is willing to help consumers if needed	X2.1
	Cold bus air conditioner	X2.2
	Crew clarity provides information on the location of the equipment needed.	X2.3
	Good crew speed and responsiveness in responding to consumer complaints.	X2.4
Assurance (X3)	Clear information available	X3.1
	There is a toilet	X3.2
	Comfortable Bus Seats and Spacious Seats	X3.3
	Travel safe and comfortable	X3.4
	Availability of glass breaker	X3.5
Empathy or Attention (X4)	Tour bus crew willing to help without being asked	X4.1
	Friendly and polite tour bus crew	X4.2
	There is a crew on standby when needed	X4.3
	Good communication between customer crew in crew service provides the same service regardless of age.	X4.4
Tangible or Physical Evidence (X5)	Ease of communicating with crew	X5.1
	First aid kit available	X5.2
	Crew looks neat and clean	X5.3
	Wifi available for customers	X5.4

Table 2. (*continued*)

Dimension	Attribute	Variable
Interest in Tourist Visits (Y1)	I intend to visit tourism locations by using the services of a tourism bus because of the good quality of service.	Y1.1
	I tend to visit tourism locations in the near future because of the support of tourism bus transportation services.	Y1.2
	I thought that I would visit tourism sites as a means of transportation.	Y1.3
	I am willing to visit tourist sites in the near future because of the support of the tourist bus services.	Y1.4
	I plan to visit tourist sites by using a tourist bus in the future.	Y1.5
	If there is a chance, I will visit tourist attractions by using a tourist bus	Y1.5

Next, based on the level of education, most of the respondents had a bachelor's degree at the latest 37.5%, the least respondents with an education level of D1 (Table 3).

Validity Test

Validity test is a tool used to measure whether or not a questionnaire is valid. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. Whether or not the instrument is valid is seen by comparing the r count with the r table. If r count > r table, then the statement instrument is valid, and if r count < r table, then the statement instrument is invalid. The value of r table can be seen in table r. Statistical significance test is carried out by comparing the calculated r value with r table for degree of frequency (df) = n − 2, in this case n is the number of samples. Testing the validity of the instrument in this study using SPSS software. The research instrument has good construction validity if it meets the above requirements. If there is a variable whose data is invalid, it means that the variable data must be discarded, then re-testing is carried out until all the variable data is valid (Ghozali, 2011).

After testing the validity, all variables, namely Reliability (X1), Responsiveness (X2), Assurance (X3), Empathy or Attention (X4), Tangible or Physical Evidence (X5) and Interest in Tourist Visits (Y) showed valid results as evidenced by the r-count value all of these variables are greater than r-table.

Reliability Test

The reliability test is a test of the accuracy of the tool in measuring what it measures, meaning that whenever the tool is used it will give the same measurement results. According to Sekaran (2006), research reliability can be measured using Cronbach's

Table 3. Characteristics of respondents

Information	Percentage
Type of work	
Student/Student	33.3
Civil servant	32.59
Businessman	5.19
Private	2.22
Self-employed	5.19
Other	21.48
Age	
18–28 years old	51.47
29–38 years old	13.97
39–48 years old	19.85
49–58 years old	11.76
59–70 years old	2.94
Income	
< IDR 500,000	11.03
IDR 500,001–1,000,000	19.12
IDR 1,000,001–2,000,001	12.5
IDR 2,000,001–5,000,000	21.32
5,000,001–10,000,000	33.09
> IDR 10,000,001	2.94
Education	
Senior High School	27.94
D1	0
D3	2.21
S1	37.5
S2	26.47
S3	5.88

Source Data processing results

Alpha which shows how well the items in a collection are positively correlated with one another. A variable is said to be real if the value of Croanbach 's Alpha (a) is greater than 0.60. Here are the test results in Table 4.

Table 4. Reliability test results

Variable	Value Limit	Cronbach Alpha	Information
Reliability (X1)	0.6	0.941	Reliable
Responsiveness (X2)	0.6	0.805	Reliable
Assurance (X3)	0.6	0.823	Reliable
Empathy or Attention (X4)	0.6	0.845	Reliable
Tangible or Physical Evidence (X5)	0.6	0.740	Reliable
Tourist Visit Interest (Y)	0.6	0.856	Reliable

Source Analysis results

Linear Regression Analysis

Linear Regression Analysis Equation

After going through the validity and reliability tests, all variables in the study showed valid and reliable results. Consequently, the test is continued with the classical assumption test and from the data processing that has been carried out it has fulfilled all the requirements in the classical assumption test. The next step is to perform a regression test. Regression test performed as much as one regression equation. In this study using six dependent variables namely Reliability (Reliability), Responsiveness (responsiveness), Assurance (Assurance), Empathy (Attention), Tangible (Physical Evidence). Meanwhile, one dependent variable is Interest in Tourist Visits. From the results of data processing using SPSS, the linear regression equation is obtained as follows:

$$Y = 2.123 + 0.107\ X1 + 0.475\ X2 + 0.001X3 + 0.016X4 - 0.016\ X5$$

where:

Y = Tourist Visit Interest

X1 = Reliability (Reliability)

X2 = Responsiveness

X3 = Assurance

X4 = Empathy (Attention)

X5 = Tangible (Physical Evidence)

a = Constant

b = Variable Coefficient.

Hypothesis Testing

Coefficient of Determination Analysis (R2)

Next is the determination hypothesis test (R2), the coefficient of determination is a measure to determine the suitability or accuracy of the relationship between the independent

Table 5. Test results of the coefficient of determination (R2)

Independent	Dependent	Adjusted R Square
Reliability (X1) Responsiveness (X2) Assurance (X3) Empathy or Attention (X4) Tangible or Physical Evidence (X5)	Interest in Tourist Visits (Y)	0.618

Source Data processing results

Table 6. t test results

Hyp	Track	Sig	Results
H1	Reliability (reliability) → Tourist Visit Interest	0.019	Accepted
H2	Responsiveness → Tourist Visit Interest	0.023	Accepted
H3	Assurance → Tourist Visit Interest	0.000	Accepted
H4	Empathy (Attention) → Tourist Visit Interest	0.794	Not accepted
H5	Tangible (Physical Evidence) → Tourist Visit Interest	0.734	Not accepted

Source Data processing results

variable and the dependent variable in a regression equation (Suharyadi and Purwanto, 2013). This value of R2 lies between 0 and 1. If R2 is close to 0, it means very few dependent variables are explained by the independent variables. If the value of R2 is close to 1, it means the greater the variation of the dependent variable that can be explained by the independent variable. If it turns out that in the calculation the value of R2 is equal to 0 then this shows that the dependent variable cannot be explained by the independent variable. Table 5 shows a summary of the results of the determination hypothesis test in this study, namely:

Based on the value of the Adjusted R2 (R square), it can be seen that the Interest in Tourist Visits can be explained by the independent variables Reliability, Responsiveness, Assurance or Guarantee, Empathy or Attention, Tangible or Physical Evidence obtained by 0.618 or by 61.8%. There is a relationship between the independent variables Reliability, Responsiveness, Assurance, Empathy or Attention), Tangible or Physical Evidence to the dependent variable, namely interest in tourist visits, where the relationship is quite strong because the value of Adjusted R2 is more than 0.50 which is 0.618. The rest is 0.382, visit interest tourism is influenced by other factors not analyzed in this study.

t-test

Next is to do a t-test to see the significance of the influence between the independent variables, namely perceived benefits, perceived ease of use of fintech, social influence, self-efficacy, and security. on the dependent variable, namely the interest in reusing fintech (M-Banking).

Based on the results of the t-test shown in Table 6, it can be concluded that some of the hypotheses are accepted and some are not. The following is an explanation of the results of the t-test in this study:

1. Hypothesis H1 is accepted, because statistically it shows a significant result at a value smaller than alpha (0.019 < 0.05). This means that Reliability partially has a significant effect on Tourist Visit Interest
2. Hypothesis H3 is accepted, because statistically it shows insignificant results at values greater than alpha (0.000 < 0.05). This means that Assurance partially has a significant effect on interest in Tourist Visits
3. Hypothesis H2 is accepted, because statistically it shows insignificant results at values greater than alpha (0.023 < 0.05). This means that Responsiveness partially has a significant effect on Tourist Visit Interest
4. Hypothesis H4 is not accepted, because statistically it shows a significant result at a value smaller than alpha (0.794 > 0.05). This means that Empathy partially has a significant effect on Tourist Visit Interest
5. Hypothesis H5 is not accepted, because statistically it shows insignificant results at values greater than alpha (0.734 > 0.05). This means that Tangible or Physical Evidence partially has no significant effect on Tourist Visit Interests

Discussion

Reliability on the Interest of Community Tourism Visits in West Sumatera

Based on the results of data processing using multiple regression data analysis techniques, through the t test, it was found that the influence of the reliability variable on tourist visits interest, has a significant level of 0.019, which is small compared to 0.05. These results conclude that the reliability variable has a positive and significant effect on the interest in tourism visits by the people of West Sumatera during the COVID-19 pandemic from March 2020 to April 2020.

During the COVID-19 pandemic, the demand to always comply with health protocols to prevent the spread of the COVID-19 virus is a very urgent matter for every individual in West Sumatera to obey. One of the health protocols that must be implemented is the closure of tourist attractions. Currently, the pandemic period has begun to decline, and tourist attractions have been reopened.

The desire to travel is influenced by several factors, one of which is the Tourism Bus. Factor Reliability affects people's interest in traveling. From the results of the descriptive analysis, it can be noted that the total average value of the Reliability variable is 3.87 or if rounded it has an average of 4. It shows that the people of West Sumatera generally have an agreeable opinion on all Reliability indicators (reliability). Where there exists a mode of reliability, such as providing service and speed, then these modes of reliability themselves would become the main attraction for the community's desire to travel.

The Effect of Assurance on Interest in Tourist Visits in West Sumatera

Based on the results of data processing using multiple regression data analysis techniques, through the t test, it was found that the influence of the Assurance variable on

the interest in Tourist Visits in West Sumatera, has a significant level of 0.000, which is small compared to 0.05. These results conclude that Assurance has a positive and significant effect on the interest in Tourist Visits in West Sumatera.

Based on the results of descriptive analysis of the questionnaire data that has been collected, it can be noted that all the indicators mentioned above have the answers generally agree and strongly agree. This shows that the people of West Sumatera really want the guarantee of the availability of a comfortable bus where the distance between the seats is wide and has security facilities as the main reason for interest in tourist visits. The indicator in the assurance variable which is the main reason for tourist interest is the third indicator, namely comfortable bus seats and wide distance between seats with a value of 4.22.

Responsiveness to the Interest of West Sumatera Tourist Visits

Based on the results of data processing using multiple regression data analysis techniques, through the t test, it was found that the effect of the Responsiveness variable on tourism interest has a significant level of 0.000 small compared to 0.05. These results conclude that the Responsiveness variable affects the interest in tourist visits to the people of West Sumatera.

It can be observed from the results of descriptive analysis, the answers to the questions that are indicators of the Responsiveness variable have an average value of 4.31. This shows that generally respondents have the opinion that the Responsiveness of the Tourism Bus is in the category that meets the needs of the respondents. Therefore Responsiveness from the Tourism Bus Service is the main reason for tourist visits.

4   Conclusion

This study aims to analyze the variables that affect the interest in tourist visits to the people of West Sumatera after the pandemic period began to decline. The results of data processing show that the variables, namely Reliability, Responsiveness and Assurance have a positive and significant influence on the interest of tourist visits, meanwhile three other variables are Empathy or Attention and Tangible or Physical Evidence does not affect the interest in tourist visits.

The results of the research above can be used as a guide for tourism bus service providers and regulators in the field of transportation to develop useful strategies to increase the use of tourism buses which have an impact on increasing tourist visits. This is at the same time an effort for the auto bus party to contribute to the effort to regenerate people's desire to travel. By knowing that the interest of the people of West Sumatera to travel depends on reliability, responsiveness, and assurance, the tourism and transportation bus service companies can improve even more than the current ones.

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