

# Evaluation of Betoambari Airport Terminal Service Improvement

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This study analyses the factors that influence passenger movements at Betoambari Airport and the relationship between terminal service quality and user satisfaction. The results of the analysis show that passenger movement is influenced by socio-economic status, where more than half of the passengers are postgraduate graduates (S2/S3) with a percentage of 50.3%, and professional professions such as doctors, consultants, and contractors dominate with a percentage of 55.6%. Furthermore, using multiple regression, it was found that of the 13 variables studied, 6 variables have a significant influence on passenger satisfaction. The variables that show a positive and significant influence include: security check speed and procedures ( $\beta=0.131$ ,  $\text{Sig.}=0.003$ ), boarding check speed ( $\beta=0.134$ ,  $\text{Sig.}=0.002$ ), waiting room cleanliness ( $\beta=0.111$ ,  $\text{Sig.}=0.012$ ), smoking area facilities ( $\beta=0.092$ ,  $\text{Sig.}=0.017$ ), staff politeness and friendliness ( $\beta=0.083$ ,  $\text{Sig.}=0.020$ ), and room temperature ( $\beta=0.111$ ,  $\text{Sig.}=0.037$ ). These findings support previous studies that suggest that these aspects contribute significantly to passenger satisfaction levels.

**Keywords:** Passenger movements, terminal service quality, user satisfaction, socio-economic factors, multiple regression.

## 1. Introduction

Air transport plays an important role in supporting the mobility of people, goods and services in this era of globalisation (Ali Khan et al., 2023). One of the key components in air transport is the airport terminal, which serves as the main gateway for passengers. As one of the public facilities that serve thousands of passengers every day, the quality of airport terminal services is a major determining factor in creating a comfortable and satisfying travel experience. Airports Council International (ACI) developed the Airport Service Quality(ASQ) programme in 2006 to measure passenger perceptions of airport service quality and passenger satisfaction (ACI, 2020). Airports provide a wide range of services to various stakeholders. The development of airlines, the influx of passengers, and the various products

and services within the airport make the airport a commercial centre, offering facilities and services with assurance of reliability, safety, efficiency, and enjoyment during the passenger experience (Goetz, 2019). (Lee & Yu, 2018) periodically survey and evaluate airport performance based on 34 service attributes divided into eight categories of access, check-in (G.C.L. Bezerra & Gomes, 2016), passport control, security, navigation, facilities, environment, and arrival. Assessment indicators measured in the security dimension are politeness and willingness to help security staff (Pholsook et al., 2023), effectiveness of security checks, waiting time for safety checks, and feeling safe and secure, safety and security play an important role at the airport (Saut & song, 2022).

Betoambari Airport, located in Baubau City, Southeast Sulawesi, has a strategic role in supporting economic, tourism and social activities in the region (Efendi, 2019). A study (Wattanacharoen sil et al., 2017) examined the relationship between airline passengers' experiences at airports and tourist destinations; however, the study used a qualitative approach and recommended that future research use quantitative methods to strengthen the results. Therefore, understanding and analysing Air passengers' experiences and perceptions of the quality of air services offered continues to be the focus of many research studies (Saut, 2022); (Monmousseau et al., 2020); (Pholsook et al., 2024); (Halpern & Mwesiumo, 2021). Assessment of airport terminal service quality can help identify strengths and weaknesses in service provision, thus providing a basis for continuous improvement (George C.L. Bezerra & Gomes, 2015); (Pandey, 2016). Airport terminal service quality can be measured using various dimensions, such as physical facilities, comfort (Garg, 2020), cleanliness (Wicaksono et al., 2024), speed of service, and staff attitudes and competence (Pholsook et al., 2024). This assessment not only provides an overview of the level of passenger satisfaction, but also an indicator of the success of airport management in providing the best service (Made et al., 2019).

A comparison of various methods such as regression and decision trees has been proposed by (Hayadi et al., 2021). A recent study evaluating airline services introduced a new framework based on text mining methods capable of identifying service dimensions from Online Customer Reviews (Lucini et al., 2020). On the other hand, some widely used methods also include analytic hierarchy process (Garg, 2020), IPA (Tseng, 2020); (Achmad Zultan Mansur et al., 2020); (Frans et al., 2014), Gap-IPA, and SEM approaches (Allen et al., 2021); (Pholsook et al., 2023), IPA-Kano (Tseng, 2020). In an in-depth literature review on methodological approaches to assessing the quality of public transport services, (De Ona et al., 2015) revealed that although researchers are working to develop more complex models to better analyse passenger satisfaction, managers and practitioners tend to opt for simpler and easier-to-understand models to support their goal of improving passenger satisfaction.

With that perspective, the objective of our research is to assess passenger satisfaction with air transport services using an easy-to-understand methodology, so that the results can be applied easily by managers and practitioners. This research is expected to contribute in formulating policies that are in line with passengers' expectations as well as identifying the key factors that influence their travel behaviour. This study also aims to evaluate passengers' assessment of service quality at Betoambari Airport terminal. By understanding passengers' perceptions, as well as analysing their demographic profiles, preferences and needs, it is expected that strategic recommendations can be made that can improve service quality and impact on the

satisfaction and loyalty of airport service users. In addition, this study aims to measure the extent to which the quality of service provided at the terminal meets user expectations, as well as to contribute to the development of the air transport sector in Indonesia, especially in the Baubau region.

## 2. Method

This study aims to provide recommendations for improving the quality of Betoambari Airport terminal services by using three qualitative descriptive analysis approaches and multiple regression analysis. The research was conducted at Betoambari Airport, Baubau City, Southeast Sulawesi, during the period August to October 2024. The research was conducted in three main stages. The first stage was data collection, which included primary data and secondary data. Primary data was collected through a questionnaire survey with a five-point Likert scale (1= very dissatisfied to 5= very satisfied), to terminal passengers, in-depth interviews with airport staff and management, as well as direct observation of services, check-in time efficiency, security checks, and boarding processes. Meanwhile, secondary data was obtained from airport operational reports, passenger statistics, and official sources such as the Central Bureau of Statistics and the Ministry of Transportation.

The second stage is data processing and analysis, where analytical approaches are used to understand service patterns and provide strategic recommendations based on the data obtained. Multiple regression is used to determine the relationship between service factors on passenger satisfaction and understand passenger characteristics at Betoambari Airport. The final stage is interpretation and recommendation formulation, which includes synthesising the analysis results to formulate service improvement strategies based on the research findings.

The study population includes all passengers who use services at Betoambari Airport Terminal. This study uses Cluster sampling technique based on day. This study uses Cluster sampling technique based on day. Data collection was carried out for 7 days so as to get the number of respondents of 356 respondents. Sampling at different times (Cluster) each day allows researchers to capture variations in experiences and views based on time, such as differences between busy times and quiet times.

In this study, the research variables are divided into two main categories: independent variables and dependent variables. The independent variables are the service attributes available at Betoambari Airport terminals, while the dependent variable is the overall satisfaction level of passengers. The following is a breakdown of the measurement of each variable.

Table 1. Variable Assessment Indicators

Source	Assessment Indicator
(Bezerra dan Gomes, 2015, 2016)	Speed of Check in Service
(Bezerra dan Gomes, 2015, 2016); (Moeun Saut and Vichethtithkanitha song, 2022)	Security Check Service Speed
(Bezerra dan Gomes, 2015, 2016)	Boarding Check Service Speed

Bezerra & Gomes, (2015); Wicaksono et al., (2024)	Toilet Cleanliness
Hong et al., (2020); Wicaksono et al., (2024)	Waiting Area Cleanliness
PM 41 Tahun 2023	Cleanliness of Place of Worship
(Bezerra dan Gomes, 2015, 2016)	Sufficient Seating in the Waiting Room Area
PM 41 Tahun 2023	Smoking Area Facilities
(Jen et al., 2013)	Clarity of Signs and Information
(Mikulić dan Prebežac, 2008)	Availability and Smoothness of Wi-Fi
(Pholsook et al., 2024); (Bezerra & Gomes, 2015); (Antwi et al., 2020)	Politeness and Friendliness of Staff
(Moeun Saut and Vicheththithkanitha song, 2022)	Room Temperature
(Mikulić dan Prebežac, 2008)	Charging Station

This approach is designed to provide complementary results and enable holistic recommendations, to optimally improve the efficiency and satisfaction of terminal services at Betoambari Airport.

### 3. RESULTS AND DISCUSSION

#### Socio-economic characteristics

Analysis of sample characteristics was conducted to understand the profile of respondents based on several variables, namely gender, age, latest education, frequency of airport use, occupation, and purpose of travelling. The identification results show that passengers at Betoambari airport terminal have diverse characteristics, both in terms of demographics, travel purposes, frequency of service use, and preferences for terminal facilities. Based on the results of research on 356 respondents at Betoambari Airport Terminal, passenger characteristics show some dominant trends. The majority of passengers are male as much as 64.3%, in terms of age, the productive age group dominates, with the age range 31-40 years as the largest group at 40.2%, from the level of education, more than half of the passengers are postgraduate graduates (S2 / S3) with a percentage of 50.3%, based on occupation, professional professions such as doctors, consultants, and contractors dominate with a percentage of 55.6%, this is in line with research (Efendi & Budiman, 2022). In terms of frequency of airport use, most passengers use the airport 1 time a month with a percentage of 69.1%, as for the purpose of travelling, most passengers travel for business or project visits with a dominance of 77.5%. The following can be seen in the table below.

Table 2. Frequency distribution of socio-economic characteristics

Sample Characteristics		N	%
Gender	Male	229	64,33%
	Female	127	35,67%
	Total	356	100,00%
Age	20 Years	2	0,56%
	21 - 31 Years	123	34,55%

	31 - 40 Years	143	40,17%
	41 - 50 Years	54	15,17%
	> 50 Years	34	9,55%
	Total	356	100,00%
Last Education	PRIMARY SCHOOL	0	0,00%
	SMP	1	0,28%
	HIGH SCHOOL	56	15,73%
	Diploma	23	6,46%
	Undergraduate (S1)	97	27,25%
	Postgraduate (S2 / S3)	179	50,28%
	Total	356	100,00%
Frequency of Using the Airport	1 time a month	246	69,10%
	2 times a month	107	30,06%
	3 times a month	3	0,84%
	4 times a month	0	0,00%
	> 5 times a month	0	0,00%
	Total	356	100,00%
Jobs	CIVIL SERVANT / TNI / POLRI	43	12,08%
	Student	19	5,34%
	Self-employed	87	24,44%
	Profession (doctor, consultant, contractor)	198	55,62%
	Others	9	2,53%
	Total	356	100,00%
Purpose of Travelling	Business Affairs / Project Visit	276	77,53%
	Service Trip	37	10,39%
	Study	17	4,78%
	Holidays	3	0,84%
	Others	23	6,46%
	Total	356	100,00%

### Validity Test

The validity test is carried out to measure the extent of the accuracy and accuracy of the research instrument in performing its measuring function. Testing the validity in this study using the Pearson Product Moment correlation technique by comparing the calculated r value with the r table at a significance level of 5% (0.05). With 356 respondents, the df (degree of freedom) value =  $n - 2 = 354$  was obtained, so the r table value used was 0.104. The results of validity testing for each variable can be seen in the table below.

**Tabel 3. Validity Test**

Variable	R Count	R Count	R Count
Check- In service speed	0,261	0,104	Valid
Security Check service speed	0,423	0,104	Valid
Boarding Check service speed	0,482	0,104	Valid
Toilet Cleanliness	0,609	0,104	Valid
Waiting Area Cleanliness	0,279	0,104	Valid
Cleanliness of Place of Worship	0,515	0,104	Valid
Sufficient seating in the waiting area	0,595	0,104	Valid
Smoking Area Facilities	0,619	0,104	Valid
Clarity of Signs and Information	0,225	0,104	Valid
Availability and Smoothness of Wi-Fi	0,366	0,104	Valid
Politeness and Friendliness of Staff	0,213	0,104	Valid
Room Temperature	0,331	0,104	Valid
Charging Station	0,155	0,104	Valid
Passenger Satisfaction	0,560	0,104	Valid

Source: SPSS 24 output processed data, 2024

Based on the table above, it is known that 14 questionnaire questions on variable X (questions) with a significant 0.05 have a value of R count > R research table. Thus the questionnaire is declared valid and reliable.

#### Reliability Test

According to (Ghozali, 2018) reliability is a method for measuring a questionnaire that is used as an indicator of a variable or construct. A questionnaire is considered reliable or trustworthy if the respondent's answer to the statement given remains consistent or stable over time. The reliability of a test refers to the degree of consistency stability, predictive power, and accuracy, if the reliability coefficient of the calculation results shows a number > 0.6, it can be concluded that the instrument concerned is declared reliable. The following can be seen in the table below.

**Tabel 4. Reliability Test**

Reliability Statistics	
Cronbach's Alpha	N of Items
.612	14

Source: SPSS 24 output processed data, 2024

The reliability test results obtained from testing the facility variable were 0.612 which stated that it was reliable.

## Classical Assumption Test

Multiple linear regression analysis is carried out by testing classical assumptions. This test aims to ensure that the variables in the study do not experience bias (Ghozali, 2018). Classical assumption testing includes normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The following are the results of classical assumption testing in this study.

### Normality Test

The normality test is used to ascertain whether in the regression model, confounding or residual variables have a normal distribution. This study uses the Kolmogorov-Smirnov statistical test by paying attention to the significance value. This test is carried out before the data is processed. Residuals are considered normally distributed if the Kolmogorov-Smirnov significance value is more than 0.05 (Ghozali, 2018). The results of the normality test using the Kolmogorov-Smirnov method are shown in the table below.

Table 5. Normality Test

#### One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		356
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.51412089
Most Extreme Differences	Absolute	.050
	Positive	.050
	Negative	-.044
Test Statistic		.050
Asymp. Sig. (2-tailed)		.032 <sup>c</sup>
Monte Carlo Sig. (2-tailed)	Sig.	.326 <sup>d</sup>
	99% Confidence Interval	
	Lower Bound	.314
	Upper Bound	.338

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Based on 10000 sampled tables with starting seed 926214481.

Source: SPSS 24 output processed data, 2024

Based on Table 4 above, the Kolmogorov-Smirnov significance value is 0.032, which is smaller than 0.05. This indicates that the residual data is not normally distributed. To normalise the data, the Monte Carlo method is applied. This method is used to simulate the behaviour of physical and mathematical systems. The Monte Carlo algorithm is a numerical technique designed to solve mathematical problems that involve many variables and are difficult to solve, such as through integral calculus or other numerical methods. Because it involves complex calculations and repetition, this algorithm is usually run using a computer and applied as a *Nanotechnology Perceptions* Vol. 20 No.7 (2024)

computer-based simulation technique (Basjaruddin, 2016), so in the table above it can be seen in the monte carlo sig.(2-tailed) value of 0.324 which means that the data is normally distributed because the Kolmogorov Smirnov significance value is more than 0.05.

#### Linearity Test

The linearity test aims to determine whether the relationship between the independent and dependent variables in the regression model is linear. A linear relationship is one of the basic assumptions in regression analysis, so it is important to ensure that the relationship is fulfilled. Linearity tests are usually carried out using the Test for Linearity method by looking at the significance of the value in the Deviation from Linearity column. The relationship between variables is considered linear if the significance value of Deviation from Linearity is greater than 0.05. If the value is smaller than 0.05, then the relationship is considered non-linear. The following can be seen in the table below.

Table 6. Linearity Test

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Y * X1	Between Groups	(Combined)	.821	2	.410	1.179 .309
		Linearity	.626	1	.626	1.799 .181
		Deviation from Linearity	.195	1	.195	.560 .455
	Within Groups		122.806	353	.348	
	Total		123.626	355		

Table 7. Linearity Test

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Y * X2	Between Groups	(Combined)	8.834	4	2.208	6.753 .000
		Linearity	8.674	1	8.674	26.524 .000
		Deviation from Linearity	.159	3	.053	.162 .922
	Within Groups		114.793	351	.327	
	Total		123.626	355		

Table 8. Linearity Test

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Y * X3	Between Groups	(Combined)	12.056	4	3.014	9.482 .000
		Linearity	10.707	1	10.707	33.683 .000
		Deviation from Linearity	1.350	3	.450	1.415 .238
	Within Groups		111.570	351	.318	

Total	123.626	355			
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Table 9. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X4	Between Groups	(Combined)	6.892	4	1.723	5.181	.000
		Linearity	6.561	1	6.561	19.727	.000
		Deviation from Linearity	.331	3	.110	.332	.802
	Within Groups		116.734	351	.333		
	Total		123.626	355			

Table 10. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X5	Between Groups	(Combined)	4.772	4	1.193	3.523	.008
		Linearity	3.966	1	3.966	11.712	.001
		Deviation from Linearity	.806	3	.269	.794	.498
	Within Groups		118.854	351	.339		
	Total		123.626	355			

Table 11. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X6	Between Groups	(Combined)	7.051	4	1.763	5.307	.000
		Linearity	5.488	1	5.488	16.523	.000
		Deviation from Linearity	1.563	3	.521	1.569	.197
	Within Groups		116.575	351	.332		
	Total		123.626	355			

Table 12. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X7	Between Groups	(Combined)	10.429	2	5.215	16.262	.000
		Linearity	10.396	1	10.396	32.421	.000
		Deviation from Linearity	.033	1	.033	.103	.748
	Within Groups		113.197	353	.321		
	Total		123.626	355			

Table 13. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.	
Y * X8	Between Groups	(Combined)	11.927	4	2.982	9.370	.000	
		Linearity	11.038	1	11.038	34.686	.000	
		Deviation from Linearity	.889	3	.296	.931	.426	
<u>Within Groups</u>			111.699	351	.318			
Total			123.626	355				

Table 14. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.	
Y * X9	Between Groups	(Combined)	.485	3	.162	.463	.709	
		Linearity	.199	1	.199	.570	.451	
		Deviation from Linearity	.286	2	.143	.409	.665	
<u>Within Groups</u>			123.141	352	.350			
Total			123.626	355				

Table 15. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.	
Y * X10	Between Groups	(Combined)	4.788	3	1.596	4.728	.003	
		Linearity	3.419	1	3.419	10.127	.002	
		Deviation from Linearity	1.369	2	.685	2.028	.133	
<u>Within Groups</u>			118.838	352	.338			
Total			123.626	355				

Table 16. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.	
Y * X11	Between Groups	(Combined)	2.461	4	.615	1.782	.132	
		Linearity	1.417	1	1.417	4.105	.044	
		Deviation from Linearity	1.044	3	.348	1.008	.389	
<u>Within Groups</u>			121.166	351	.345			
Total			123.626	355				

Table 17. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X12	Between Groups	(Combined)	4.332	2	2.166	6.410	.002
		Linearity	3.855	1	3.855	11.406	.001
		Deviation from Linearity	.478	1	.478	1.413	.235
	Within Groups		119.294	353	.338		
	Total		123.626	355			

Table 18. Linearity Test

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X13	Between Groups	(Combined)	.794	4	.198	.567	.687
		Linearity	.000	1	.000	.000	.992
		Deviation from Linearity	.794	3	.265	.756	.519
	Within Groups		122.833	351	.350		
	Total		123.626	355			

Based on the results of linearity testing from tables 5 - 17, the variables of speed & procedure of check-in check (X1), speed & procedure of passenger security check (X2), speed of boarding check (X3), cleanliness of toilets (X4), cleanliness of waiting room area (X5), cleanliness of place of worship (X6), adequacy of seating in waiting room area (X7), Smoking area facilities (X8), clarity of signs and information (X9), availability and smoothness of Wi-fi (X10), courtesy and friendliness of staff (X11), room temperature (X12), charging station (X13) can be concluded that the relationship between the independent variable and the dependent variable (Y) fulfils the assumption of linearity. Therefore, this data is suitable for use in regression analysis.

#### Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there are differences in residual variances between one observation and another in the regression model. If the residual variance is fixed, this condition is called homoscedasticity, while if the variance is different, it is called heteroscedasticity. A good regression model has homoscedasticity or does not show symptoms of heteroscedasticity, to ensure the presence or absence of heteroscedasticity problems, testing is carried out using the Glejser method (Ghozali, 2013). According to (Ghozali, 2018), the Glejser test is performed by regressing the absolute value of the residual on the independent variable.

Table 19. Heteroscedasticity Test

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.993	.218		4.564	.000
X1	.011	.024	.025	.466	.642
X2	-.042	.026	-.093	-1.635	.103
X3	.006	.026	.013	.235	.814
X4	-.006	.023	-.018	-.262	.793
X5	-.010	.026	-.020	-.382	.703
X6	-.018	.023	-.049	-.808	.420
X7	-.045	.032	-.092	-1.422	.156
X8	-.028	.023	-.083	-1.218	.224
X9	-.029	.026	-.060	-1.106	.270
X10	-.016	.026	-.040	-.611	.542
X11	-.021	.021	-.055	-1.018	.310
X12	.043	.031	.091	1.368	.172
X13	-.015	.025	-.031	-.593	.553

a. Dependent Variable: POSITIF

Source: SPSS 24 output processed data, 2024

Based on the results of the heteroscedasticity test using the Glejser method, it is known that the significance value of the variable speed & procedure for checking in (X1), speed & procedure for checking passenger security (X2), boarding check speed (X3), toilet cleanliness (X4), cleanliness of the waiting area (X5), cleanliness of the place of worship (X6), adequate seating in the waiting area (X7), Smoking Area Facilities (X8), clarity of signs and information (X9), availability and smoothness of Wi-fi (X10), politeness and friendliness of staff (X11), room temperature (X12), charging station (X13). Thus, it can be concluded that the data does not experience heteroscedasticity problems.

#### MultiCollinearity Test

According to (Ghozali, 2018) the multicollinearity test aims to identify whether there is a correlation relationship between independent variables. A good linear regression model is a model that is free from multicollinearity problems. To detect the presence of multicollinearity symptoms, it can be done by looking at the collinearity statistics table, at the Variance Inflation Factor (VIF) and tolerance values. The requirements that must be met are the VIF value  $<10$  and tolerance  $> 0.1$ .

Table 20. MultiCollinearity Test

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.791	.368		2.152	.032		
X1	.013	.041	.016	.323	.747	.957	1.044
X2	.131	.043	.154	3.009	.003	.848	1.179
X3	.134	.043	.159	3.094	.002	.845	1.184
X4	.008	.039	.012	.202	.840	.589	1.699
X5	.111	.044	.121	2.529	.012	.968	1.033
X6	.039	.039	.056	1.016	.310	.736	1.359
X7	.083	.053	.090	1.545	.123	.659	1.517
X8	.092	.038	.148	2.406	.017	.590	1.695
X9	.016	.044	.018	.370	.712	.932	1.073
X10	.049	.044	.066	1.116	.265	.633	1.579
X11	.083	.036	.114	2.330	.020	.932	1.073
X12	.111	.053	.125	2.098	.037	.620	1.613
X13	.001	.042	.001	.022	.982	.979	1.021

a. Dependent Variable: Y

Source: SPSS 24 output processed data, 2024

Based on Table 19, it can be seen that the VIF value for all independent variables does not exceed 10, and the tolerance value is more than 1. From these results, it can be concluded that all independent variables consisting of speed & procedure of check-in check (X1), speed & procedure of passenger security check (X2), speed of boarding check (X3), cleanliness of toilets (X4), cleanliness of waiting area (X5), cleanliness of places of worship (X6), adequacy of seating in the waiting area (X7), Smoking Area Facilities (X8), clarity of signs and information (X9), availability and smoothness of Wi-fi (X10), courtesy and friendliness of staff (X11), room temperature (X12), charging station (X13) there are no symptoms of multicollinearity.

#### 4. Conclusion

Based on the results of the analysis, passenger movement activities at Betoambari Airport are influenced by socio-economic status such as position and education, as analyzed that more than half of the passengers are postgraduate graduates (S2 / S3) with a percentage of 50.3% and professional occupations such as doctors, consultants, and contractors dominate with a percentage of 55.6%. In addition, based on the results of the analysis of the extent to which

the quality of service provided at the terminal meets user expectations using multiple regression, it was found that of the 13 variables studied, there are 6 variables that have a significant influence on passenger satisfaction. Variable X2 speed & procedure of passenger security check shows a positive and significant influence ( $\beta=0.131$ ,  $\text{Sig.}=0.003$ ) which is in line with research (Bellizzi et al., 2020) which confirms that service facilities have a positive impact on the level of passenger satisfaction. Similarly, variable X3 boarding check speed showed a positive and significant effect ( $\beta=0.134$ ,  $\text{Sig.}=0.002$ ), supporting the findings of (Parasuraman et al., 2015) regarding the importance of reliability aspects in creating customer satisfaction. Furthermore, variable X5 cleanliness of the waiting area also shows a positive and significant effect ( $\beta=0.111$ ,  $\text{Sig.}=0.012$ ), this is in line with research (Wicaksono et al., 2024); (George C.L. Bezerra & Gomes, 2015); (Allen et al., 2021) which says that cleanliness is an important factor in passenger satisfaction. Variable X8 Smoking Area facilities also contributed positively and significantly ( $\beta=0.092$ ,  $\text{Sig.}=0.017$ ) to passenger satisfaction, Variable X11 politeness and friendliness of staff has a very significant effect ( $\beta=0.083$ ,  $\text{Sig.}=0.020$ ), this is in line with previous research (Pholsook et al., 2024); (Antwi et al., 2020) and X12 room temperature also shows a positive and significant effect ( $\beta=0.111$ ,  $\text{Sig.}=0.037$ ).

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