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A Quantitive Case Study on the Impact of International Waiting Room Service Facilities on Passenger Satisfaction at Yogyakarta International Airport

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ABSTRACT

This study analyzes the impact of international waiting room service facilities on passenger satisfaction at Yogyakarta International Airport (YIA). The research was motivated by the incomplete operation of key facilities—such as commercial tenants and smoking areas—which often draw complaints. A quantitative approach was applied using multiple linear regression, supported by qualitative data from observations, interviews, and online reviews. Results show that comfort-providing facilities (X1) have a moderate correlation with satisfaction (correlation coefficient = 0.514; regression = 0.118), while value-added facilities (X2) show a very strong correlation (correlation coefficient = 0.805; regression = 0.461). Both variables significantly influence satisfaction simultaneously, with a coefficient of determination (R^2) of 0.687. This indicates that 68.7% of satisfaction levels can be explained by the quality of both facility types. Qualitative findings reinforce the quantitative results, revealing recurring dissatisfaction due to unavailable or poorly functioning value-added services, particularly information counters, audio announcements, and commercial amenities. These issues reflect a mismatch between passenger expectations and actual service experience. The study recommends improving visibility, accessibility, and activation of experiential facilities to enhance passenger satisfaction and align with international service standards.

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INTRODUCTION

Yogyakarta International Airport (YIA) was built to replace Adisutjipto International Airport, which was deemed no longer capable of meeting passenger and aircraft capacity needs. The high demand for domestic and international flights to the Special Region of Yogyakarta is expected to be accommodated by YIA [1]. Therefore, YIA needs to prepare various facilities to serve passengers and ensure the comfort of airport service users.

In terms of service, the standards for airport services are regulated in the Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 41 of 2023. This regulation divides service requirements for passengers into two categories: facilities that provide comfort and facilities that provide value-added services [2]. These provisions must be fulfilled by every airport operator, including YIA.

However, the current condition of the international departure lounge at YIA is not yet fully operational. There are still restricted access areas, and facilities such as tenant spaces and smoking rooms, which are often the subject of passenger complaints, are not yet available. This finding aligns with the results of a qualitative study by Putranto and Gantara [3], which identified similar complaints regarding the limitations of comfort facilities at YIA. The suboptimal operation of these facilities has the potential to reduce user satisfaction levels. However, user satisfaction is an important aspect outlined in Point 10 of the International Airport Public Service Standards, which emphasizes the importance of achieving the Customer Satisfaction Index (CSI) through effective service management [4]. This study aims to analyze the influence of service facilities, both those that provide comfort and those that value-added, on passenger satisfaction at Yogyakarta International Airport. This study is expected to serve as a basis for evaluating service standards and providing recommendations for more effective service improvement strategies for airport managers.

In finding the effect of passenger satisfaction on international waiting room facility services, associative hypotheses are used and divided into the following:

1. H_0 : There is no significant relationship between the service quality of facilities that provide comfort and the level of passenger satisfaction in the international departure lounge of Yogyakarta International Airport.

   H_a : There is a significant relationship between the service quality of facilities that provide comfort and the level of passenger satisfaction in the international departure waiting room of Yogyakarta International Airport.

2. H_0 : There is no significant relationship between the service quality of facilities that provide value-added and the level of passenger satisfaction in the international departure lounge of Yogyakarta International Airport.

   H_a : There is a significant relationship between the service quality of facilities that provide value-added and the level of passenger satisfaction in the international departure lounge of Yogyakarta International Airport.

3. H_0 : There is no significant influence between facilities that provide comfort and facilities that provide value-added to passenger satisfaction in the international departure waiting room of Yogyakarta International Airport.

   H_a : There is a significant influence between facilities that provide comfort and facilities that provide value-added to passenger satisfaction in the international departure lounge of Yogyakarta International Airport.

METHODS

This study employed a quantitative approach with a confirmatory design, aimed at validating hypotheses derived from existing theories regarding airport service quality and passenger satisfaction [5], [6]. To enrich the findings, qualitative data collection was also conducted through observation, in-depth interviews, and document analysis.

The qualitative component involved interviews with passengers selected using purposive sampling techniques, ensuring diversity in travel background and user experience. Three informants participated in the interview process:

1. Mr. L – A 46-year-old Australian citizen, a frequent international traveler.
2. Mr. R – A 42-year-old Indonesian business traveler with frequent international flight experience.
3. Ms. R – A 33-year-old Indonesian passenger on her first international flight, accompanied by her child for leisure travel.

These participants were considered representative of the passenger demographics at Yogyakarta International Airport (YIA), capturing varied perspectives on comfort and value-added facility services

Research Variables

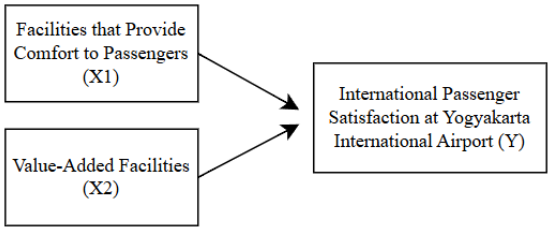


Figure 1. Research Variables

This study involves one dependent variable and two independent variables. The dependent variable is passenger satisfaction at Yogyakarta International Airport, while the independent variables consist of:

1. Facilities that Provide Comfort (X1)

   These refer to essential airport facilities that support basic comfort for passenger, including air conditioning, lighting, toilets, general cleanliness, trolley, nursery room, and special needs facilities.

2. Value-Added Facilities (X2)

   These refer to additional or supporting facilities that enhance the overall passenger experience, such as charging stations, children's play areas, prayer rooms, commercial tenants (shops, cafés), and information services (both audio and visual).

The measurement indicators for each variable were developed based on the Regulation of the Minister of Transportation PM 41 of 2023 on airport service standards.

Population

Population is a generalization area that includes objects or subjects with certain qualities or characteristics that have been determined by researchers to be studied. After that the researcher can draw conclusions from the research results [7]. This study focuses the population on passengers who use facility services that provide comfort and facilities that provide value-added in the international waiting room of Yogyakarta International Airport.

Sample

In this study, the author took samples using a *non-probability sampling* method supported by *purposive sampling* techniques, namely by not giving equal opportunities to each component of the population to be selected as samples. Passengers in that age range are assumed to have more structured experiences and expectations of airport services, so that the data obtained can reflect the perceptions of service users in a valid and relevant manner. Based on data obtained from the airport, the daily average passenger flow throughout 2024 is 522 passengers so that the number of samples needed to represent the entire population is 84 respondents. The calculation of the required sample uses the Slovin formula as follows:

$$n = \frac{N}{1 + N \,.\, e^2} \quad (1)$$

$$n = \frac{522}{1 + 522\,.\,(0{,}1)^2} \tag{2}$$

$$n = \frac{522}{1 + 5{,}22} \tag{3}$$

$$n = \frac{522}{6{,}22} \approx 84 \tag{4}$$

Description:
n = number of samples required
N = population size
e = margin of error (10%)

Data Collection Technique

This study employed four data collection techniques: observation, questionnaires, interviews, and document studies.

Observation was conducted through direct field monitoring during the author's On-the-Job Training (OJT) at Yogyakarta International Airport. The researcher engaged in structured observation by focusing on the availability, condition, and accessibility of service facilities. The findings were documented using an observation checklist developed based on airport service standards [8].

For the quantitative component, data were collected using closed-ended questionnaires designed with a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." This method aimed to measure respondents' perceptions regarding various aspects of service quality, particularly comfort-related and value-added facilities. The data obtained were then processed and analyzed using Statistical Package for the Social Sciences (SPSS), with several analytical procedures applied to ensure validity and reliability. These procedures included validity and reliability tests to confirm instrument accuracy, followed by assumption tests such as normality, linearity, multicollinearity, and heteroscedasticity to ensure that the data met the prerequisites for regression analysis[5][9].

To strengthen the analysis, qualitative data were collected through semi-structured interviews with selected informants. The interviews aimed to gain deeper insights into passenger experiences, expectations, and perceived gaps in current facility services. Informants were selected using purposive sampling, representing diverse passenger backgrounds (e.g., business travelers, international tourists, first-time flyers). The interview data were then analyzed thematically to identify recurring patterns, issues, and user perceptions.

Additionally, a document study was conducted by reviewing publicly available passenger comments and reviews from online platforms such as Google Maps. This approach provided alternative perspectives and secondary evidence of user satisfaction and dissatisfaction toward facilities at the international departure lounge. The collected qualitative data were triangulated with the interview and observation findings to enhance the validity of the conclusions drawn from the study.

RESULT AND DISCUSSION

Observation Results

This observation aims to identify the availability, condition, and accessibility of various facilities available in the area. The instrument of observation is prepared in the form of a questionnaire with indicators that are adjusted to the standard of airport services according to the Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 41 of 2023 with reference to the classification of facilities that provide comfort and value-added facilities[2]. The following are the results of observations of facilities available in the international departure lounge of Yogyakarta International Airport:

Table 1. Observation Results of Service Availability of International Waiting Room Facilities at Yogyakarta International Airport

No	Facility Name	Availability	Condition	Accessibility	Description
1	Temperature Setting	V	Optimum	-	< 25°C
2	Lighting	V	Optimum		200 - 250 lux
3	*Trolley*	V	Good	Easy	-
4	*Staging area trolley*	X	-	Difficult	There is no staging area, so trolleys are often not neatly arranged after use.
5	Area Cleanliness	V	Good		-
6	Cleaning Officer	V	Good	Easy	-
7	Visual Information	V	Good	-	In good condition, but occasional errors/loss of signal
8	Audio Information	V	Good	-	Good condition, but some passengers complained about the loudspeakers being too loud and the annoying airport music.
9	Customer Service Counter	X	-	Difficult	No customer service counter available
10	Restroom	V	Good	Easy	Kondisi bersih, namun terdapat plafon berjamur di toilet dikarenakan terdapat kebocoran
11	Lactation Room (Nursery Room)	V	Good	Easy	Complete, clean, and comfortable. Equipped with baby changing table, washbasin, hot water dispenser, seating area, and trash bin
12	Facilities for special needs users	V	Good	Easy	Elevators and staff are available to assist passengers with disabilities.
13	Worship Place	V	Good	Easy	In good condition, clean, and fragrant
14	Smoking Room	X	Under Maintenance	Difficult	Closed due to ongoing repairs to leaks in the smoking room.
15	Children's Playroom	V	Good	Easy	In good condition, but passengers have complained several times that the area is too small.
16	Internet / WiFi	V	Good	Difficult	Free Wi-Fi is available, but the connection speed is relatively slow.
17	Drinking Water Facilites	V	Good	Easy	There are two dispensers in the international waiting area.
18	Charging Stations	V	Good	Easy	Available in the waiting room chairs
19	Tenant Facilities	X	Poor	Difficult	No tenants available
20	Money Changer Facilities	X	Poor	Not Opened	There is a money changer in the waiting room, but it is closed and inaccessible because the area is not yet open.

Based on the results of observations by recording using a questionnaire, it is found that most of the facilities provide comfort and value-added are optimally available, but there are several facilities that are not yet available. *Trolley staging area, customer service counter*, and *tenant* facilities are not available in the international departure lounge area. As for the smoking room and *money changer* facilities, they are available but closed due to damage and areas that are still closed (limited by *queue lines*).

Questionnaire Results

1. Validity Test

The results of the validity test for the research variables with a significance level of 5% on 25 respondents are shown below:

Table 2 Validity Test Results for X1 Variable

Statement	r Count	r Table	Description
P1	0,797	0,396	Valid
P2	0,884	0,396	Valid
P3	0,814	0,396	Valid
P4	0,865	0,396	Valid
P5	0,78	0,396	Valid
P6	0,748	0,396	Valid
P7	0,822	0,396	Valid
P8	0,814	0,396	Valid

Source : Testing Using SPSS. Simplified and Combined into One Table

Table 3 Validity Test Results for X2 Variable

Statement	r Count	r Table	Description
P1	0,596	0,396	Valid
P2	0,785	0,396	Valid
P3	0,743	0,396	Valid
P4	0,761	0,396	Valid
P5	0,724	0,396	Valid
P6	0,726	0,396	Valid
P7	0,773	0,396	Valid
P8	0,656	0,396	Valid

Source : Testing Using SPSS. Simplified and Combined into One Table

Table 4 Validity Test Results for Y Variable

Statement	r Count	r Table	Description
P1	0,806	0,396	Valid
P2	0,807	0,396	Valid
P3	0,829	0,396	Valid
P4	0,757	0,396	Valid
P5	0,83	0,396	Valid
P6	0,834	0,396	Valid
P7	0,801	0,396	Valid
P8	0,788	0,396	Valid

Source : Testing Using SPSS. Simplified and Combined into One Table

The calculated r value for each statement on each tested variable produces a positive value and is greater than the r table value so that it can be concluded that all statements on the variable facilities that provide passenger comfort are valid and can be used for analysis.

2. Reliability Test

Table 5 Cronbach's Alpha Reliability Test Results

Variable

X1

Reliability Statistics

Cronbach's Alpha	N of Items
.928	8

X2

Reliability Statistics

Cronbach's Alpha	N of Items
.867	8

Y

Reliability Statistics

Cronbach's Alpha	N of Items
.922	8

Based on the table above, it is known that variables X1, X2, and Y respectively produce Cronbach's Alpha values of 0.928; 0.867; and 0.922 so it can be concluded that the three variables have very reliable answer constructs.

3. Normality Test

Table 6 Kolmogorov-Smirnov Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		109
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.04814675
Most Extreme Differences	Absolute	.058
	Positive	.053
	Negative	-.058
Test Statistic		.058
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

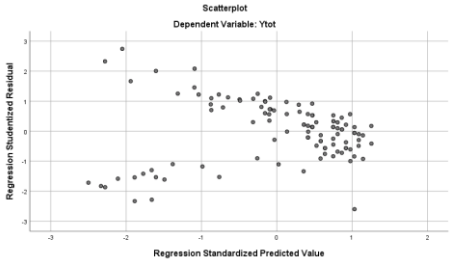
c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the normality test using Kolmogorov-Smirnov on the residual regression mode, the significance value is 0.200. This shows that the normality assumption test in linear regression is fulfilled because the significance value is greater than 0.05.

4. Heteroscedasticity Test

Figure 7 (a) Scatterplot Heteroscedasticity Test Results (b) Spearman's rho Heteroscedasticity Test Results



(a)

Correlations

			Fasilitas Kenyamanan	Fasilitas Nilai Tambah	Unstandardized Residual
Spearman's rho	Fasilitas Kenyamanan	Correlation Coefficient	1.000	.425**	-.117
		Sig. (2-tailed)	.	.000	.227
		N	109	109	109
	Fasilitas Nilai Tambah	Correlation Coefficient	.425**	1.000	-.092
		Sig. (2-tailed)	.000	.	.340
		N	109	109	109
	Unstandardized Residual	Correlation Coefficient	-.117	-.092	1.000
		Sig. (2-tailed)	.227	.340	.
		N	109	109	109

**. Correlation is significant at the 0.01 level (2-tailed).

(b)

Based on the scatterplot, it can be seen that the points spread evenly and randomly around the zero horizontal line without forming a specific pattern. This indicates that there is no violation of the assumption of homoscedasticity. Then, based on testing with the spearman's rho method, it is found that the sig value (two-tailed) for X1 is 0.227 and X2 is 0.340. With a test value that shows a significance result greater than 0.05, it shows that there are no symptoms of heteroscedasticity in the X1 and X2 variables.

5. Linearity Test

Table 8 X1 Variable Linearity Test Results

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Ytotal * X1total	Between Groups	(Combined)	1753.190	101	17.358	1.160	.461
		Linearity	490.751	1	490.751	32.804	.001
		Deviation from Linearity	1262.439	100	12.624	.844	.682
	Within Groups		104.721	7	14.960		
	Total		1857.911	108			

The table above shows that the deviation from linearity value for the independent variable X1 on the dependent variable is 0.682.

Table 8. X2 Variable Linearity Test Results

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Ytotal * X2total	Between Groups	(Combined)	1333.827	23	57.992	9.406	.000
		Linearity	1202.824	1	1202.824	195.083	.000
		Deviation from Linearity	131.004	22	5.955	.966	.514
	Within Groups		524.083	85	6.166		
	Total		1857.911	108			

Meanwhile, the table above shows that the deviation from linearity value for the independent variable X2 on the dependent variable is 0.514. Based on the results of the linearity test with the deviation from linearity result of more than 0.05, it is concluded that the independent variables X1 and X2 have a linear relationship with the dependent variable.

6. Multicollinearity Test

Table 9 Multicollinearity Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	15.001	1.190		12.602	.000		
	X1total	.118	.032	.220	3.683	.000	.830	1.205
	X2total	.461	.039	.714	11.981	.000	.830	1.205

a. Dependent Variable: Ytotal

Based on the results of the table analysis above, the tolerance values X1 (0.830) and X2 (0.830) were obtained. The results of the tolerance value of the two variables are greater than 0.100. Meanwhile, the VIF values of X1 (1.205) and X2 (1.205) are smaller than 10.00. Based on the tolerance and VIF values of the two independent variables on the dependent variable, it can be concluded that there are no symptoms of multicollinearity in the research data this time.

7. Multiple Linear Regression Analysis

Table 10 Multiple Linear Regression Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	15.001	1.190		12.602	.000		
	X1total	.118	.032	.220	3.683	.000	.830	1.205
	X2total	.461	.039	.714	11.981	.000	.830	1.205

a. Dependent Variable: Ytotal

The coefficients table in column B shows a constant of 15.001 with an X1 value of 0.118 and an X2 value of 0.461 so that the regression equation becomes as follows:

$$Y = a + b_1X_1 + b_2X_2 \quad (5)$$

$$Y = 15{,}001 + 0{,}118X_1 + 0{,}461X_2 \quad (6)$$

Y = dependent variable (YIA Airport international passenger satisfaction)

X_1 = independent variable (facilities that provide comfort)

X_2 = independent variable (facilities that provide value-added)

The results of the coefficients table show that the regression coefficient of variable X1 which is 0.118 results in the conclusion that each increase in the comfort facility score is positively correlated with passenger satisfaction so that the level of passenger satisfaction also increases. In variable X2, the same thing happens with variable X1. The equation above means that every 1 unit increase in variables X1 and X2 will be followed by an increase in satisfaction scores of 0.118 and 0.461 points respectively, assuming other variables are held constant.

8. Correlation Coefficient Test

Table 11 (a) X1 Variable Correlation Coefficient Test Results (b) X2 Variable Correlation Coefficient Test Results

Correlations

		X1total	Ytotal
X1total	Pearson Correlation	1	.514**
	Sig. (2-tailed)		.000
	N	109	109
Ytotal	Pearson Correlation	.514**	1
	Sig. (2-tailed)	.000	
	N	109	109

**. Correlation is significant at the 0.01 level (2-tailed).

(a)

Correlations

		X2total	Ytotal
X2total	Pearson Correlation	1	.805**
	Sig. (2-tailed)		.000
	N	109	109
Ytotal	Pearson Correlation	.805**	1
	Sig. (2-tailed)	.000	
	N	109	109

**. Correlation is significant at the 0.01 level (2-tailed).

(b)

The calculated results show that there is a moderate / fairly strong positive relationship between the variable facilities that provide comfort (X1) on the passenger satisfaction variable (Y) with a value of 0.514. Meanwhile, the variable of facilities that provide value-added (X2) also produces a very strong positive relationship to the passenger satisfaction variable (Y) with a value of 0.805. Both independent variables produce statistically significant results.

Beyond statistical significance, these findings suggest practical implications in the context of airport service management. While comfort facilities (such as air conditioning, lighting, etc) are important in meeting passengers' basic expectations, value-added facilities (such as Wi-Fi, prayer rooms, children's areas, smoking room, and clear information services) appear to have a greater

emotional and experiential impact on passengers (r_{X1}= 0.805 > r_{X2}= 0.514). This may be because such facilities offer a sense of personalization, convenience, and enhanced travel experience, particularly crucial in international travel contexts where waiting times are longer and expectations are higher.

In this context, airports like YIA may benefit from gradually shifting focus toward optimizing value-added services, without neglecting the essentials. Improving visibility and accessibility of such facilities, along with maximizing underutilized terminal areas, can be a subtle yet effective strategy to elevate passenger experience in line with global service standards.

Table 12 Multiple Linear Regression Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.829[a]	.687	.682	2.34070	.687	116.552	2	106	.000

a. Predictors: (Constant), X2total, X1total

b. Dependent Variable: Ytotal

Meanwhile, based on the multiple regression Model Summary table, the R Square value is 0.687, which indicates that there is a strong relationship between the independent variables of facilities that provide comfort (X1) and facilities that provide value-added (X2) to passenger satisfaction (Y).

This substantial explanatory power highlights the critical role of facility quality in shaping passenger perceptions. Previous studies have similarly emphasized that airport facilities are a dominant determinant of user satisfaction, particularly in international terminals where expectations for comfort and convenience are higher [10]. Value-added facilities such as Wi-Fi, commercial zones, and play areas contribute not only to physical comfort but also to emotional and experiential satisfaction, which influences overall airport ratings.

For airport authorities, this indicates that targeted improvements in both basic and supplementary facilities can yield significant gains in satisfaction scores and public perception. Given the strong contribution of these two variables, airports should consider facility quality not just as a compliance metric, but as a strategic asset in delivering a competitive and passenger-centric service environment.

9. t Test

Table 13 t Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.829[a]	.687	.682	2.34070	.687	116.552	2	106	.000

a. Predictors: (Constant), X2total, X1total

b. Dependent Variable: Ytotal

Based on the analysis results from the table above, the significance result for the variable facilities that provide comfort (X1) is 0.000. Then for the variable facilities that provide value-added (X2) the result is 0.000. As for the results of the analysis of the t_{count}value obtained of 3.683> t_{table}value ($_1$.982). With the results of the significance of the two variables being smaller than 0.05 and the value of $t_{count} > t_{table}$, it can be concluded that there is a significant influence of the independent variable on the dependent variable. Thus, the null hypothesis (H_0) which states that there is no effect of facilities that provide comfort on international passenger satisfaction, and which states that there is no effect of facilities that provide value-added on international passenger satisfaction is rejected, and the alternative hypothesis (H_a) of the two hypotheses is accepted.

10. F Test

Table 14 F Test Results (ANOVA)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1277.151	2	638.575	116.552	.000[b]
	Residual	580.760	106	5.479		
	Total	1857.911	108			

a. Dependent Variable: Ytotal

b. Predictors: (Constant), X2total, X1total

The results shown in the ANOVA table produce a calculated F value of 116.552 with a significance (p-value) of 0.000. With a significance value smaller than 0.05, it means that simultaneously, the independent variables of facilities that provide comfort (X1) and facilities that provide value-added (X2) have a significant effect on international passenger satisfaction at Yogyakarta International Airport (Y). Thus, the null hypothesis (H_0) which states that there is no simultaneous influence is rejected and the alternative hypothesis (H_a) is accepted.

11. Determination Coefficient Test

Table 15 Determination Coefficient Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.829[a]	.687	.682	2.34070

a. Predictors: (Constant), X2total, X1total

Based on the results of the above analysis, the percentage of passenger satisfaction variable diversity (Y) that can be explained by the variables of facilities that provide comfort (X1) and facilities that provide value-added (X2) is 68.7%. While the remaining 31.3% is explained by other variables outside the regression model.

Analysis of Interview Results

After conducting interviews with relevant sources, the results of the interview quotes can be formulated in a thematic tabulation table to make it easier to summarize the opinions of the passengers.

Table 16 Thematic Table of the Interviews

Theme	Statement/Core Quote	Respondent
Basic comfort (cleanliness, temperature, seats)	*Ruang tunggunya bersih, rapi, AC-nya juga oke.* [The waiting room is clean, tidy, and the air conditioning is also good.]	Mrs. R
	The space is clean, modern.	Mr. L
	Toilet oke, bersih. [The toilet is fine, clean]	Mr. N
Children's facilities	*Anak saya sempat main di area anak, walaupun kecil, cuma perosotan plastik.* [My child played in the children's area,	Mrs. R

	even though it was small and only had a plastic slide.]	
Charging station	I used the charging station in this chair.	Mrs. R
	Saya sempat pakai tempat nge-charge, itu pun mesti cari-cari dulu. [I used a charging station, but I had to search for it first.]	Mr. N
Drinking water	*Saya sempet refill air minum pakai tumbler.* [I refilled my water bottle with a tumbler.]	Mrs. R
	I noticed a water dispenser, which is always appreciated.	Mr. L
Commercial facilities (*tenants*, food/beverage)	*Ekspektasinya pengennya ada* tenant *yang jual makanan ringan atau minuman.* [My expectation was that there will be tenants selling snacks or drinks.]	Ms. R
	Tidak ada tempat ngopi, tidak ada lounge, tidak ada tempat jualan juga. [There is no coffee shop, no lounge, and no place to buy anything either.]	Mr. N
	A small cafe or vending machine in this lounge would make a big difference.	Mr. L
Information service (visual)	*Seringkali tanya ke petugas karena petunjuk jalannya saya pikir agak kurang.* {I often ask the staff for directions because I think the directions are a little unclear.]	Mrs. R
	Needs clearer wayfinding...	Mr. L
Information services (audio)	*Suara pengumuman kadang ngambang karena ada musik gamelan.* [The announcement is sometimes drowned out by gamelan music.]	Ms. R
	Suara pengumuman juga harus diperhatikan. [The announcement sound must also be taken into consideration].	Mr. N
	Overlapping sounds... hard to catch announcements.	Mr. L
Information service (physical)	*Ruang tunggu internasional malah ga tersedia counter CS.* [The international waiting room doesn't even have a customer service counter.]	Mr. N
Business facilities (work)	*Tidak ada meja duduk buat buka laptop, seadanya aja.* [There are no tables to sit at and	Mr. N

	open your laptop, just make do with what you have.]	
Local cultural image / terminal design	Cultural touches... highlight local identity.	Mr. L
General feedback	*Area bermain anak bisa dibikin lebih proper. Tenant perlu ditambah.* [The children's play area could be made more proper. More tenants are needed.]	Mrs. R
	Segera aktifkan fasilitas tambahan, maksimalkan area yang dibatasi. [Activate additional facilities immediately, maximize restricted areas.]	Mr. N
	Tone down the overlapping sounds, add a cafe.	Mr. L

Based on the results of interviews with passengers, the author found positive assessments of facility services on cleanliness, temperature regulation, availability of seats, availability of children's play areas, and availability of *charging stations* on waiting room seats. However, there are some special concerns on visual and audio information service facilities because passengers feel that these services need to be improved so that they are able to carry out guiding services well to passengers. There are also facility services that are still not available but for passengers are needed in the form of commercial facilities such as *tenants.*

Discussion of Observation and Interview Results

The results of the previous quantitative analysis align with the field observations, which indicate that most basic facilities in Yogyakarta International Airport's international waiting lounge, such as seating, restrooms, lighting, and air temperature, are functionally available. However, both observation and questionnaire findings suggest that passengers tend to feel less impressed by these features, as they are commonly perceived as part of the airport's baseline service obligations. According to [11], such basic facilities are often seen as hygiene factors, necessary but not sufficient to drive high satisfaction levels.

In contrast, value-added facilities, including charging stations, prayer rooms, play areas, commercial outlets, and clear signage, are consistently mentioned by passengers as contributing to a memorable and satisfying experience. Furthermore, Fakfare demonstrated that in international lounges, intangible amenities markedly improve passengers' overall perception, especially when compared to core service components [12].

These insights confirm that, although comfort facilities are essential, value-added services more strongly affect passenger satisfaction, particularly in international contexts with longer dwell times and higher service expectations. When such facilities fall short of expectations, passengers are more likely to register dissatisfaction despite the presence of operational basic infrastructure [13].

Discussion of Document Study of User Reviews on the Internet

This indication of a mismatch in passenger expectations of available facilities is also reflected in the researcher's findings on one of the assessments of Yogyakarta International Airport on *Google Maps.* One *google* user rated one star under the name Tomas Keseli with the comment,

> "*The airport security confiscated my water bottle (that I purchased in the duty free area, mind you) and the international departures have no vending machines/shops or other options to get water from.*" (Tomas Keseli)

Tomas Keseli had a bad experience on his international flight through Yogyakarta International Airport because the drinks purchased at the *duty free/tenant* area of the domestic lounge were

confiscated by the officers during the *Liquid, Aerosol, and Gels* (LAGs) check to enter the international lounge. Unfortunately, there is no *duty free* or *tenant* available in the international lounge. This condition has often been a complaint for international flight passengers, which was also complained about by the three sources interviewed by the author. The presence of *tenants* is an important aspect that is expected to be available in the international lounge by passengers to fulfill their needs.

In another assessment, someone commented on the unavailability of designated smoking areas in the international lounge. An Indonesian passenger named Rizki Andrinal shared his experience through a rating on *Google Maps*. Rizki rated 1 star with the following comment,

> "*Secara Infrastruktur Bagus dan Mewah, Cuma tidak ramah bagi perkokok, karena tidak ada public smoking area di ruang Tunggu...*" (Rizki Andrinal)

The comment is in line with the author's observations which noted that a designated smoking room is not available in the international waiting room due to the condition that is still damaged so the smoking room is closed. In addition to the results of observations, in research by Legoningsih, et al.[14] stated that in optimizing the *smoking room* at YIA, the airport left it to each *tenant* to prepare a *smoking room.*

In addition, there were also passenger complaints related to audio information services that were quite disturbing to passengers. Passengers with the names Adam Maulana, Adam Ramadhan, Dheera Venkatraman, Scripting rabbit (pseudonym), and GM (pseudonym) jointly argue that the gamelan accompaniment song actually disturbs passengers to listen to the announcement sound.

> "*Bandara nya brisik, banyak musik murahan, kalo ada pengumuman sampai gak kedengeran*." (Adam Maulana)
>
> "...playing the same gamelan soundtrack after each time. Nobody can make phone calls in this airport." (Dheera V.)

These similar complaints from observations and interviews reinforce that the dissatisfaction of YIA Airport international waiting room users does not only occur during surveys, but is also reflected in public perceptions at large.

CONCLUSION

This research was conducted to evaluate the influence of comfort-related and value-added facilities on international passenger satisfaction at Yogyakarta International Airport (YIA) through a mixed quantitative and qualitative approach. Using correlation and regression analysis, the results indicate that comfort facilities have a moderate positive effect ($r = 0.514$), while value-added facilities demonstrate a very strong effect ($r = 0.805$), with both variables jointly explaining 68.7% of the variation in satisfaction levels. Complementary qualitative findings highlight gaps in the functionality and availability of certain amenities, such as customer service counters, smoking rooms, and commercial tenants, which are echoed in passenger interviews and online reviews. These results underscore the critical role of functional value-added services in shaping perceptions and suggest that airport management should improve facility visibility, optimize unused spaces, and strengthen guidance systems, while also instituting regular feedback mechanisms to align with passenger expectations. Although limited in scope to the international terminal of YIA, this study contributes to the literature on airport service quality and provides practical recommendations to enhance the Customer Satisfaction Index (CSI) and strengthen the airport's international competitiveness.

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