

The Influence Of Aviation Security (Avsec) Service Quality And The Availability Of Departure Area Facilities In Terminal 1 On Passenger Satisfaction At Juanda International Airport, Surabaya

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ABSTRACT

Passenger satisfaction has become an important indicator in evaluating airport service performance because it reflects passengers' perceptions of both operational efficiency and service quality. Previous studies have generally examined airport service quality or airport facilities separately, while limited empirical research has investigated the combined influence of Aviation Security (AVSEC) service quality and departure area facility availability on passenger satisfaction, particularly at Juanda International Airport. This study addresses this research gap by examining the relative contribution of these two variables to passenger satisfaction.

This study aims to analyze the influence of AVSEC service quality and departure area facility availability on passenger satisfaction at Terminal 1 of Juanda International Airport. A quantitative research approach was employed using a survey of 120 departing passengers selected through accidental sampling. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS.

The results reveal that both AVSEC service quality and departure area facility availability have positive and significant effects on passenger satisfaction. Among the two variables, AVSEC service quality has a stronger influence, indicating that passengers place greater value on the professionalism, responsiveness, assurance, empathy, and communication skills of AVSEC officers than on the availability of physical facilities alone.

The findings provide practical implications for airport management by emphasizing the importance of strengthening AVSEC personnel competencies through continuous training

while maintaining adequate departure area facilities to improve passenger satisfaction. The novelty of this study lies in integrating AVSEC service quality and departure area facility availability into a single research model within the context of airport security services, thereby enriching the literature on airport service management and aviation security.

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1. INTRODUCTION

The continuous growth of Indonesia's aviation industry has significantly increased passenger traffic at major airports, including Juanda International Airport. According to PT Angkasa Pura Indonesia, Juanda International Airport served more than 14 million passengers in 2024, reflecting the airport's strategic role as one of the busiest air transportation hubs in eastern Indonesia. The increasing number of passengers has intensified operational activities, resulting in greater demands for efficient airport services, adequate facilities, and effective aviation security (AVSEC) performance. Consequently, maintaining high service quality has become essential to ensure passenger satisfaction while supporting safe and efficient airport operations.

Previous studies have demonstrated that airport service quality and terminal facilities contribute to passenger satisfaction. However, most studies have examined these factors separately or have focused on general airport services without specifically investigating the role of AVSEC service quality. In addition, limited empirical studies have simultaneously analyzed the combined effects of AVSEC service quality and departure area facility availability on passenger satisfaction within the operational context of Juanda International Airport. Therefore, further research is needed to provide empirical evidence regarding the relative contribution of these variables in improving passenger satisfaction.

This study offers a novel contribution by integrating AVSEC service quality and departure area facility availability into a single research model to explain passenger satisfaction at Juanda International Airport. Unlike previous studies that primarily evaluated airport service quality in general, this research specifically emphasizes the role of AVSEC officers as frontline personnel who directly interact with passengers during the security screening process. The findings are expected to enrich the literature on airport service management while providing practical recommendations for improving airport operational performance.

The SERVQUAL theory explains that service quality consists of five dimensions, namely tangibles, reliability, responsiveness, assurance, and empathy, all of which influence customer satisfaction. In the airport context, these dimensions are highly relevant because passengers directly interact with airport personnel and experience various airport facilities during their journey. The **tangibles** dimension refers to the physical appearance of AVSEC officers, the cleanliness of the security screening area, and the adequacy of security equipment such as X-ray machines, walk-through metal detectors, and hand-held metal detectors. Professional appearance and well-maintained facilities contribute to passengers' confidence in airport security services.

The **reliability** dimension reflects the ability of AVSEC officers to perform security screening accurately, consistently, and in accordance with established Standard Operating Procedures (SOPs). Reliable security services minimize operational errors while ensuring compliance with national and international aviation security regulations.

The **responsiveness** dimension represents the willingness of AVSEC officers to provide prompt assistance, efficiently manage passenger queues, and respond quickly to passenger inquiries or security-related situations. Efficient and responsive services reduce waiting time and improve passengers' overall airport experience.

The **assurance** dimension is demonstrated through the competence, professionalism, communication skills, and credibility of AVSEC officers. Passengers are more likely to feel safe and confident when security officers display adequate knowledge, courtesy, and the ability to explain security procedures clearly.

Finally, the **empathy** dimension reflects the ability of AVSEC officers to treat passengers politely, respectfully, and fairly while providing special assistance to elderly passengers, children, and passengers with disabilities or special needs. Such personalized attention contributes positively to passenger satisfaction without compromising aviation security standards.

Therefore, the SERVQUAL dimensions provide an appropriate theoretical foundation for evaluating AVSEC performance because they capture both the technical and interpersonal aspects of security services. Improving these dimensions is expected to enhance passenger satisfaction by creating a security screening process that is not only safe and effective but also efficient, comfortable, and passenger-oriented.

One of the most important components of airport operations is aviation security, which is carried out by Aviation Security (AVSEC) personnel. Aviation security is a critical aspect of civil aviation operations because it aims to protect passengers, crew members, aircraft, airport facilities, and aviation operations from acts of unlawful interference such as terrorism, sabotage, and security threats. According to Derrickson and Tripathi (2022) Aviation Security (AVSEC) refers to a set of preventive measures implemented to safeguard civil aviation against unlawful acts through screening, surveillance, inspection, and security control procedures. AVSEC officers play a significant role in maintaining aviation safety and security standards while ensuring that airport operations run efficiently and safely.

In practice, the responsibilities of AVSEC officers are not limited to security functions alone. AVSEC personnel also interact directly with passengers during security screening processes at the Passenger Security Check Point (PSCP). Therefore, the quality of services provided by AVSEC officers becomes an important factor influencing passenger satisfaction. Passengers expect AVSEC officers to provide services that are professional, responsive, polite, communicative, and efficient while still maintaining strict aviation security standards. According to Rahayu and Fakhruddin (2025) service quality provided by airport personnel significantly affects passenger satisfaction because direct interactions between passengers and airport officers shape passengers' perceptions regarding airport performance and service quality.

Furthermore, airport security screening processes are often associated with passenger stress due to long queues, strict procedures, limited waiting time, and travel anxiety. In such situations, the attitude and professionalism of AVSEC officers become increasingly important in creating a comfortable and secure environment for passengers. According to Cheng et al. (2023) passenger perceptions of safety and security significantly influence their overall airport experience and satisfaction levels. Passengers are more likely to feel satisfied when security procedures are

implemented efficiently and officers are able to communicate clearly and respectfully during the screening process.

In addition to service quality, the availability and quality of airport facilities also play an important role in influencing passenger satisfaction. Airport facilities refer to the physical infrastructure and supporting amenities provided to support passenger activities before departure, during transit, and upon arrival. These facilities include waiting rooms, seating capacity, toilets, prayer rooms, Flight Information Display Systems (FIDS), signage, baggage handling facilities, charging stations, restaurants, retail stores, Wi-Fi services, and accessibility facilities for passengers with disabilities. According to Hasanzade et al. (2023) airport facilities significantly contribute to passenger comfort, operational efficiency, and overall travel experiences.

Environmental factors such as cleanliness, lighting, air circulation, temperature, noise levels, and terminal layout also influence passenger perceptions regarding airport service quality. Comfortable and well-maintained facilities can reduce passenger fatigue and stress while improving convenience and operational efficiency. Conversely, inadequate facilities such as overcrowded waiting rooms, poor cleanliness, insufficient seating areas, or ineffective information systems may negatively affect passenger experiences and lead to dissatisfaction. According to Sun and Pan (2023) airport environmental quality and facility adequacy are among the major determinants of passenger satisfaction in airport services.

Previous studies have consistently shown that service quality and facility availability significantly influence customer satisfaction in transportation services and airport operations. Nik et al. (2025) explained that airport service quality positively affects passenger satisfaction and behavioral intentions. Similarly, Baker, Merkert, and Kamruzzaman (2023) found that physical facilities, cleanliness, and terminal comfort significantly contribute to positive passenger experiences at airports. Meanwhile, Prentice and Kadan (2019) emphasized that emotional experiences during airport services influence passenger loyalty and satisfaction.

However, despite extensive research regarding airport services and passenger satisfaction, differences still exist among previous findings. Some studies argue that service quality is the dominant factor affecting passenger satisfaction, while others emphasize the importance of physical facilities and airport environments. According to Fodness and Murray (2007), airport service experiences are multidimensional and involve both functional service quality and physical environmental factors. These differing perspectives indicate that both AVSEC service quality and facility availability remain relevant for further investigation, particularly within the context of Indonesian airports, where passenger traffic continues to increase significantly.

Juanda International Airport is one of the busiest airports in Indonesia and serves as a major transportation hub in eastern Indonesia. Terminal 1 of Juanda International Airport primarily serves domestic flights with high passenger traffic levels every day. The increasing number of passengers creates operational challenges in maintaining service quality, security effectiveness, and facility availability. During peak operational hours, passengers may experience long queues at security checkpoints, overcrowded waiting areas, limited seating capacity, and delays in obtaining flight information. These operational conditions may negatively affect passenger satisfaction if not managed properly.

A preliminary observation conducted by the researcher at Terminal 1 of Juanda International Airport showed that several passengers expressed complaints regarding AVSEC services and departure area facilities. Some passengers perceived that security screening processes were time-consuming, while others considered that seating capacity and public facilities in the departure area were insufficient during busy periods. These conditions indicate a gap between passenger expectations

and the actual quality of airport services provided. According to Kotler, P., & Keller, K. L. (2016), customer satisfaction occurs when perceived service performance meets or exceeds customer expectations, whereas dissatisfaction occurs when service performance falls below expectations.

Several previous studies related to airport service quality and passenger satisfaction have also highlighted the importance of security services and airport facilities. De Jesus (2026) explained that operational efficiency, service quality, and security significantly influence passenger satisfaction at airports. Likewise, Godwin Jr., K. W. (2024) found that airport security screening experiences strongly affect passenger perceptions regarding airport quality and competitiveness. Furthermore, Numbi, L. K. (2023) emphasized that service quality dimensions such as assurance and responsiveness are important factors affecting customer satisfaction in aviation services.

Based on the background above, this study aims to analyze the influence of AVSEC service quality and the availability of departure area facilities on passenger satisfaction at Terminal 1 of Juanda International Airport using the Partial Least Square Structural Equation Modeling (PLS-SEM) method. This study is expected to contribute both theoretically and practically. Theoretically, this research contributes to the development of knowledge regarding airport service quality and passenger satisfaction in the aviation sector. Practically, the findings of this study are expected to provide useful recommendations for airport management in improving AVSEC service quality, maintaining adequate facilities, and enhancing passenger satisfaction in order to support better airport service performance and competitiveness in the future.

The findings of this study indicate that both AVSEC service quality and facility availability have positive and significant effects on passenger satisfaction, with AVSEC service quality identified as the most dominant factor influencing passenger satisfaction. These findings confirm that direct interactions between passengers and airport personnel remain crucial in shaping passenger experiences, even in increasingly modern airport environments supported by advanced infrastructure and facilities.

2. METHODS

This study employed a non-probability sampling technique, specifically accidental sampling, to select respondents. This technique was considered appropriate because the target population consisted of passengers departing from Terminal 1 of Juanda International Airport, whose presence continuously changed throughout the data collection period. Since no complete sampling frame of departing passengers was available and passengers arrived and departed at different times, implementing probability sampling was impractical.

Accidental sampling enables researchers to collect data from respondents who are readily available and willing to participate at the time of data collection. This approach is commonly used in airport service research where passenger mobility is high and access to the entire population is limited (Sekaran & Bougie, 2019; Creswell & Creswell, 2018). Therefore, accidental sampling was considered the most feasible and efficient technique for achieving the objectives of this study.

Although accidental sampling was appropriate for this study, it has limitations regarding the generalizability of the findings. Because respondents were selected based on their availability rather than through random selection, the sample may not fully represent the entire population of passengers using Juanda International Airport. Consequently, the findings should be interpreted within the context of the sampled respondents. Future studies are encouraged to employ probability sampling techniques or involve multiple airports to enhance the representativeness and external validity of the results.

2.1 Research Design

This study used an associative (causal) research design, which aims to examine the causal relationships between independent variables and a dependent variable. In this context, AVSEC service quality and facility availability are treated as independent variables, while passenger satisfaction is the dependent variable.

The causal design is appropriate because the study does not merely describe phenomena but seeks to explain how and to what extent changes in service quality and facility availability influence passenger satisfaction. This approach also supports decision-making by providing evidence-based insights into service improvement priorities.

2.2 Research Variables and Operational Definitions

The variables in this study were operationalized based on established theories and previous empirical studies to ensure validity and relevance.

1. AVSEC Service Quality (X1)

This variable refers to the perceived quality of services provided by Aviation Security officers during passenger screening procedures. It is measured using the SERVQUAL dimensions (Parasuraman, A., Zeithaml, V. A., & Berry, L. L. 1988), which include:

- a. Tangibles: physical appearance of personnel and equipment
- b. Reliability: ability to perform services accurately and consistently
- c. Responsiveness: willingness to assist passengers promptly
- d. Assurance: knowledge, courtesy, and trustworthiness of officers
- e. Empathy: attention and individualized care toward passengers

2. Facility Availability (X2)

This variable reflects the adequacy and condition of facilities available in the departure area, including:

- a. Environmental facilities (cleanliness, lighting, air temperature)
- b. Public facilities (waiting areas, seating, signage, restrooms)
- c. Commercial facilities (shops, restaurants, and supporting services)

3. Passenger Satisfaction (Y)

Passenger satisfaction is defined as the level of fulfillment perceived by passengers after comparing their expectations with the actual services received. It is measured through:

- a. Service speed
- b. Service accuracy
- c. Security
- d. Comfort
- e. Hospitality

Each variable was measured using multiple indicators to capture its multidimensional nature.

2.3 Population and Sample

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The sample consisted of 120 respondents, which satisfies the minimum sample size requirement for PLS-SEM analysis. According to Hair et al. (2022), PLS-SEM can be applied effectively with relatively small to medium sample sizes, provided that the sample adequately represents the structural model and satisfies the minimum sample size recommendations. Therefore, the sample size used in this study was considered sufficient to estimate the proposed research model.

Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed because it is suitable for predictive research models involving latent variables and does not require strict assumptions regarding multivariate normality. In addition, PLS-SEM performs well with relatively small sample sizes and is appropriate for analyzing complex relationships among constructs measured using multiple indicators (Hair et al., 2022).

2.4 Data Collection Technique

Data were collected using a survey method through the distribution of structured questionnaires. The questionnaires were administered directly to passengers in the departure area to ensure that responses reflected real-time experiences.

The questionnaire items were developed based on theoretical frameworks and adapted from previous studies to ensure content validity. Before full-scale data collection, the questionnaire was reviewed and refined to improve clarity and avoid ambiguity in wording.

All items were measured using a four-point Likert scale, consisting of:

1 = Strongly Disagree

2 = Disagree

3 = Agree

4 = Strongly Agree

The absence of a neutral option in the scale was intended to encourage respondents to express clear opinions, thereby reducing central tendency bias.

2.5 Research Instrument Testing

To ensure the quality of the measurement instrument, validity and reliability tests were conducted as part of the data analysis process.

a. Validity Test:

Convergent validity was assessed using outer loading values and Average Variance Extracted (AVE). Indicators with outer loading values above 0.7 and AVE values above 0.5 were considered valid.

b. Reliability Test:

Internal consistency reliability was evaluated using Composite Reliability and Cronbach's Alpha. Values above 0.7 indicate that the instrument is reliable and consistent.

These tests ensure that the instrument accurately measures the intended constructs and produces stable results.

2.6 Data Analysis Technique

The data were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM) with SmartPLS software. This method was selected for several reasons:

- a. It is suitable for exploratory and predictive research
- b. It can handle complex models with multiple variables and indicators
- c. It does not require strict assumptions of normal data distribution
- d. It is effective for relatively small sample sizes

The analysis was conducted in two main stages:

1. Outer Model Evaluation (Measurement Model)

This stage evaluates the relationship between latent variables and their indicators through:

- a. Outer loading (indicator reliability)
- b. AVE (convergent validity)
- c. Composite Reliability and Cronbach's Alpha (internal consistency)

2. Inner Model Evaluation (Structural Model)

This stage examines the relationships between variables using:

- a. R-square (coefficient of determination)
- b. f-square (effect size)
- c. Predictive relevance (Q-square, if applicable)
- d. Model fit indices such as SRMR and NFI

3. Hypothesis Testing

Hypothesis testing was performed using the bootstrapping method to obtain T-statistics and P-values. A hypothesis is accepted if the T-statistic is greater than 1.96 and the P-value is less than 0.05, indicating statistical significance at the 5% level.

2.7 Ethical Considerations

This study ensured that all respondents participated voluntarily. Respondents were informed about the purpose of the research and were assured that their responses would remain confidential and would be used solely for academic purposes. No personal identifying information was disclosed in the analysis or reporting of the results.

2.8 Research Procedure

The research was conducted through several systematic stages:

- a. Identifying the research problem and formulating objectives
- b. Reviewing relevant literature and developing a theoretical framework
- c. Designing research instruments based on established indicators
- d. Conducting data collection through questionnaire distribution
- e. Processing and analyzing data using SmartPLS
- f. Interpreting results and discussing findings

- g. Drawing conclusions and providing recommendations

3. FINDINGS AND DISCUSSION

The findings of this study were obtained through data analysis using the Partial Least Square Structural Equation Modeling (PLS-SEM) method with SmartPLS software. The respondents in this study were passengers using the departure area of Terminal 1 at Juanda International Airport, Surabaya.

3.1. Respondent Characteristics

The respondents in this study were classified based on gender, age, and frequency of air travel. This classification aims to provide an overview of the demographic profile of respondents, which can influence their perceptions of service quality and satisfaction.

3.1.1 Respondent Characteristics Based on Gender

Table 1. Respondent Characteristics Based on Gender

Gender	Total	Percentage
Male	68	56.7%
Female	52	43.3%
Total	120	100%

Overall, the demographic characteristics of the respondents strengthen the credibility of the research findings. Most respondents belonged to the productive age group and had previous experience using air transportation. These characteristics are particularly relevant because passengers with prior travel experience are generally more familiar with airport procedures and are therefore better able to evaluate AVSEC performance and the adequacy of airport facilities. Consequently, their assessments provide meaningful insights into the relationship between AVSEC service quality, facility availability, and passenger satisfaction.

Based on Table 1, the majority of respondents were male (56.7%), while female respondents accounted for 43.3%. This indicates that male passengers slightly dominated the sample. However, the distribution remains relatively balanced, allowing the data to represent both genders adequately in assessing perceptions of AVSEC service quality and facility availability.

3.1.2 Respondent Characteristics Based on Age

Table 2. Respondent Characteristics Based on Age

Age	Total	Percentage
17-25 Years	48	40%
26-35 Years	39	32.5%
36-45 Years	21	17.5%
>45 Years	12	10%
Total	120	100%

Table 2 shows that the majority of respondents were aged 17–25 years (40%), followed by 26–35 years (32.5%), 36–45 years (17.5%), and above 45 years (10%). This suggests that most respondents belong to the productive age group, who are generally more active in traveling and tend to have higher expectations regarding airport services, particularly in terms of efficiency, speed, and convenience.

3.1.3 Respondent Characteristics Based on Travel Frequency

Table 3. Respondent Characteristics Based on Travel Frequency

Travel Frequency	Total	Percentage
1-2 Times	48	40%

3-5 Times	39	32.5%
>5 Times	21	17.5%
Total	120	100%

Based on Table 3, most respondents traveled 1–2 times (40%), followed by 3–5 times (32.5%), and more than 5 times (17.5%). This indicates that the majority of respondents are occasional to moderate travelers. Their perceptions are important because they represent general passenger expectations rather than frequent flyer bias.

3.2. Validity and Reliability Test

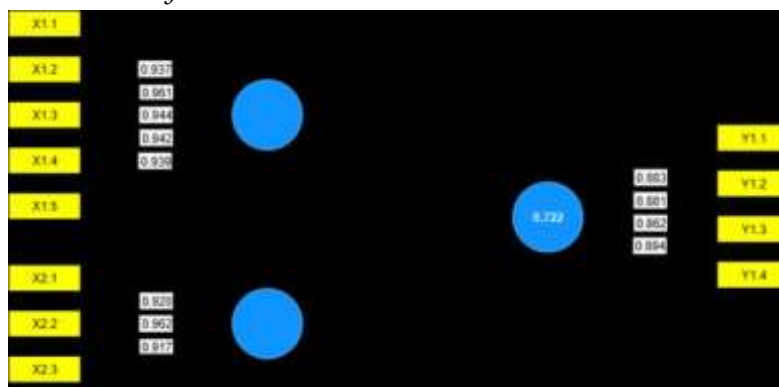


Figure 3. 1 Results of the Outer Model (Measurement Model) Testing using the PLS-SEM Method

The outer model evaluation showed that all indicators used in this study met the validity and reliability requirements.

Table 4. Validity and Reliability Test Results

Variable	AVE	Composite Reliability	Cronbach's Alpha	Result
AVSEC Service Quality	0.781	0.945	0.931	Valid and Reliable
Facility Availability	0.754	0.937	0.922	Valid and Reliable
Passenger Satisfaction	0.769	0.941	0.928	Valid and Reliable

Based on Table 4, all variables have AVE values greater than 0.5, indicating good convergent validity. In addition, the Composite Reliability and Cronbach's Alpha values for all variables exceed 0.7, confirming that the instruments are reliable and consistent in measuring each construct.

Table 5. Outer Loading Results

Variable	Indicator	Outer Loading
AVSEC Service Quality	Tangibles	0.842
AVSEC Service Quality	Reliability	0.881
AVSEC Service Quality	Responsiveness	0.905
AVSEC Service Quality	Assurance	0.893
AVSEC Service Quality	Empathy	0.861
Facility Availability	Environmental Facilities	0.847
Facility Availability	Public Facilities	0.901
Facility Availability	Commercial Facilities	0.874

Passenger Satisfaction	Service Speed	0.883
Passenger Satisfaction	Service Accuracy	0.892
Passenger Satisfaction	Security	0.918
Passenger Satisfaction	Comfort	0.887
Passenger Satisfaction	Hospitality	0.865

Furthermore, Table 5 shows that all outer loading values are above 0.7, which indicates that each indicator has a strong correlation with its respective variable. Among the indicators:

- Responsiveness (0.905) and Assurance (0.893) are the strongest contributors to AVSEC service quality.
- Public Facilities (0.901) is the most dominant indicator in facility availability.
- Security (0.918) is the most influential indicator in passenger satisfaction.

This indicates that passengers place high importance on responsiveness, safety, and facility adequacy when evaluating airport services.

3.3. Structural Model Analysis

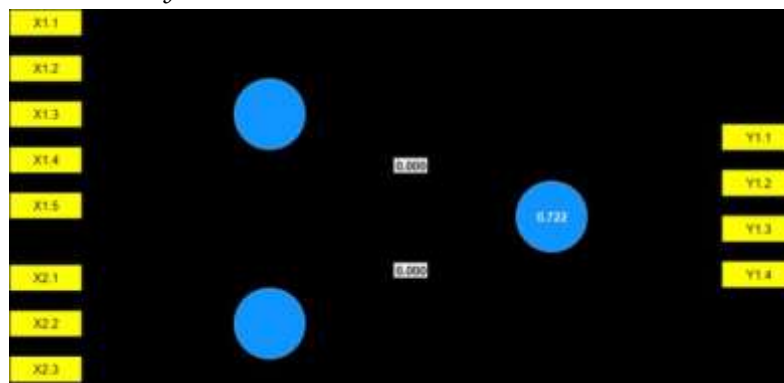


Figure 3. 2 Results of the Inner Model (Structural Model) Testing using the PLS-SEM Method

The inner model analysis revealed an R-square value of 0.722 for the passenger satisfaction variable. This indicates that 72.2% of the variation in passenger satisfaction can be explained by AVSEC service quality and facility availability, while the remaining 27.8% is influenced by other variables not included in this study.

Table 6. R-Square and F-Square Analysis Results

Variable	Value	Category
R-Square Passenger Satisfaction	0.722	Strong
AVSEC Service Quality (f-square)	1.266	Strong Effect
Facility Availability (f-square)	1.083	Strong Effect

Based on Table 6, the structural model produced an R-square value of 0.722 for passenger satisfaction, indicating that 72.2% of the variance in passenger satisfaction is explained by AVSEC service quality and facility availability, while the remaining 27.8% is influenced by other variables not included in this study. According to Hair et al. (2022), R-square values of 0.75, 0.50, and 0.25 may be interpreted as substantial, moderate, and weak, respectively. Therefore, the obtained R-square value indicates moderate to substantial predictive power, demonstrating that the proposed model has strong explanatory capability in predicting passenger satisfaction at Juanda International Airport.

Table 7. Model Fit Test Results

Indicator	Value	Criteria
SRMR	0.071	Good
NFI	0.913	Good

Additionally, Table 7 shows that the model fit indices are within acceptable ranges (SRMR = 0.071 and NFI = 0.913), which means that the research model is considered good and suitable for explaining the relationships among variables.

3.4. Hypothesis Testing

Table 8. Hypothesis Testing Results.

Hypothesis	Variable Relationship	T-Statistic	P-Value	Result
H1	AVSEC Service Quality → Passenger Satisfaction	12.874	0.000	Accepted
H2	Facility Availability → Passenger Satisfaction	10.912	0.000	Accepted

The hypothesis testing results indicate that:

- H1: AVSEC Service Quality has a positive and significant effect on Passenger Satisfaction (T-statistic = 12.874; P-value = 0.000).
- H2: Facility Availability has a positive and significant effect on Passenger Satisfaction (T-statistic = 10.912; P-value = 0.000).

These results confirm that both variables significantly influence passenger satisfaction. However, based on the higher T-statistic value, AVSEC service quality has a more dominant influence compared to facility availability.

This suggests that direct interaction between passengers and AVSEC officers plays a crucial role in shaping overall satisfaction, especially during the security screening process.

3.5. Discussion

The finding that AVSEC service quality has a significant positive effect on passenger satisfaction indicates that passengers highly value the quality of interactions they experience during the security screening process. Professionalism, responsiveness, assurance, and effective communication demonstrated by AVSEC officers contribute to passengers' perceptions of safety, comfort, and trust. These findings support the SERVQUAL theory proposed by Parasuraman et al. (1988), which emphasizes that customer satisfaction is strongly influenced by the quality of services delivered.

This finding is consistent with the studies conducted by Prentice and Kadan (2019) and Baker et al. (2023), which reported that airport service quality significantly affects passenger satisfaction and overall airport experience. Similar results suggest that regardless of airport size or operational complexity, passengers consistently place greater importance on the quality of human interaction than on operational efficiency alone.

The strong influence of AVSEC service quality may also be explained by the fact that security screening represents one of the first mandatory interactions between passengers and airport personnel. During this process, passengers directly evaluate officers' courtesy, professionalism, responsiveness, and communication skills. Consequently, positive interactions during security screening create favorable first impressions that influence passengers' overall assessment of airport services.

The results also indicate that facility availability has a significant positive effect on passenger satisfaction. This finding suggests that adequate departure facilities, including seating capacity, flight information display systems, cleanliness, lighting, signage, and waiting areas, contribute to passenger comfort while waiting for departure.

These findings are in line with Baker et al. (2023) and Hasanzade et al. (2023), who found that terminal facilities and the physical airport environment positively influence passenger satisfaction and travel experience. Well-maintained facilities reduce passenger inconvenience, improve accessibility, and create a more comfortable airport environment, thereby enhancing passengers' overall travel experience.

4. CONCLUSION

This study examined the influence of AVSEC service quality and departure area facility availability on passenger satisfaction at Terminal 1 of Juanda International Airport. The findings demonstrate that both variables have positive and significant effects on passenger satisfaction. However, AVSEC service quality was found to have a stronger influence than facility availability, indicating that passengers place greater importance on the professionalism, responsiveness, assurance, empathy, and communication skills of AVSEC officers during the security screening process. These findings reinforce the SERVQUAL theory, which emphasizes that high-quality service delivery is a key determinant of customer satisfaction.

From a practical perspective, the findings suggest that airport management should prioritize continuous improvements in AVSEC personnel competencies through regular training in customer service, communication, responsiveness, and aviation security procedures. At the same time, maintaining and upgrading departure area facilities remains essential to ensure passenger comfort and enhance the overall airport experience. Therefore, balancing service excellence with aviation security standards is expected to improve passenger satisfaction and strengthen airport competitiveness.

Despite its contributions, this study has several limitations. First, the use of accidental sampling limits the generalizability of the findings because the respondents were selected based on their availability rather than through random sampling. Second, the study was conducted only at Terminal 1 of Juanda International Airport, which may limit the applicability of the findings to other airport terminals or airports with different operational characteristics. Third, this study focused only on AVSEC service quality and facility availability, while other factors such as waiting time, airport digital services, perceived security, airline service quality, and passenger trust may also influence passenger satisfaction.

Future studies are therefore encouraged to employ probability sampling techniques to improve sample representativeness and external validity. In addition, future research may involve multiple airports to enable comparative analysis across different operational environments. Researchers are also encouraged to incorporate additional variables, such as airport technology adoption, service efficiency, perceived safety, passenger loyalty, and airport image, to develop a more comprehensive understanding of the factors influencing passenger satisfaction.

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