The Effect of Customer Satisfaction on the Average Length of Stay of Foreign Guests in Indonesian Hotels

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Abstract

The hospitality sector in Indonesia continues to face a strategic challenge in increasing the length of stay (LoS) of international visitors, which is considered an important indicator for improving hotel revenue and regional tourism competitiveness. One factor that increasingly shapes guest behavior is customer satisfaction, which is widely reflected in online review platforms that travelers rely on when evaluating accommodation options. This study investigates how satisfaction levels expressed through online ratings and review sentiment influence the average duration of stay among foreign tourists in Indonesian hotels. A quantitative explanatory approach was applied, utilizing multiple regression analysis based on secondary data collected from TripAdvisor, Booking.com, and hospitality statistics published by BPS for the period 2022–2024. The empirical findings reveal a positive and statistically significant effect of customer satisfaction on LoS (p < 0.05), indicating that higher satisfaction ratings correspond with a longer stay duration. Among the measured dimensions, cleanliness emerged as the strongest predictor, followed by service quality and hotel location. These results imply that international guests tend to prioritize comfort and service experience rather than price considerations when deciding whether to extend their stay. The study highlights the importance of strengthening service standards, maintaining superior hygiene practices, and improving accessibility to surrounding attractions. Improving these aspects has the potential to enhance guest experience and ultimately extend visitor stays, representing a strategic avenue for hotel operators and tourism stakeholders in increasing competitiveness and revenue performance in the Indonesian hospitality industry.

Keywords: Customer Satisfaction, Length of Stay, Online Reviews, Foreign Guests, Indonesian Hospitality

1. Introduction

Indonesia's tourism sector has experienced significant growth after the COVID-19 pandemic, becoming one of the main drivers of the national economy. In 2024, the tourism sector's contribution to GDP reached 4%, an increase from 3.9% in 2023 (Source: Coordinating Ministry for Economic Affairs), with the number of foreign tourist arrivals reaching a record high of 13.9 million visits. This achievement demonstrates Indonesia's growing appeal as a global tourist destination. The hospitality industry, as the backbone of the tourism sector, plays a vital role in supporting this growth. The occupancy rate of star-rated hotels in April 2024 reached 47.14 percent, an increase of 5.77 percent on an annual basis (Source: Coordinating Ministry for Economic Affairs).

In the Indonesian context, previous studies such as Samsidar (2017), Rahmadina (2022), and Subakti (2024) show the positive influence of service quality on satisfaction and loyalty. However, no study has specifically measured the influence of satisfaction on the length of stay of foreign guests.

The government needs to increase tourist spending and length of stay during visits by improving and maintaining guest satisfaction. Data shows that most guests stay for 2-3 days, indicating that hotel guests are satisfied with the facilities offered.

Despite the increase in tourist arrivals, Indonesia's hospitality industry faces serious challenges related to guest length of stay. National data shows that the average length of stay for guests at star-rated hotels continues to decline, from 1.78 nights in 2019 to 1.52 nights in 2024. Length of Stay (LoS) is an important indicator in the hospitality industry because it correlates directly with hotel revenue and profitability. Guests who stay longer tend to generate higher revenue through consumption of hotel facilities and additional services. This phenomenon has a direct impact on revenue per available room (RevPAR) and hotel profitability. Shorter stays reduce the potential

revenue from additional services such as food & beverage, spa, laundry, and other facilities that contribute significantly to total hotel revenue. The average length of stay for foreign guests is 2.8 nights, while Indonesian guests stay for 1.5 nights, indicating that foreign guests have greater economic contribution potential but are also experiencing a downward trend that needs to be addressed.

In the digital age, customer satisfaction not only influences repeat purchase decisions but is also reflected in online reviews that serve as references for potential guests. Online reviews have become a highly influential form of electronic word-of-mouth in the hospitality industry. Customer satisfaction has long been recognized as a key determinant in the hospitality industry, influencing various aspects of consumer behavior. Satisfied customers are more likely to return and recommend the hotel to others, ultimately benefiting the hotel (Ni Luh Ketut & Ni Putu Indah, 2019). However, the specific relationship between customer satisfaction and length of stay, particularly for foreign guests, has not been extensively explored in the Indonesian context.

Foreign guests have different characteristics and behavior patterns from domestic guests. The average length of stay for foreign guests is 2.58 nights, while Indonesian guests stay for 1.51 nights, indicating that foreign guests tend to stay longer. This difference indicates that foreign guests have different expectations and preferences that need to be understood in depth. Foreign guests prefer to stay at five-star hotels (43.09 percent), indicating their preference for premium facilities and services. This characteristic indicates that foreign guest satisfaction is greatly influenced by the quality of service, facilities, and stay experience they receive, which in turn can influence their decision to extend their stay.

Although many studies have explored the relationship between customer satisfaction and loyalty and intention to return, there is a significant research gap regarding the influence of customer satisfaction on length of stay, especially for the foreign guest segment in Indonesia. The majority of previous studies have focused on the impact of satisfaction on repeat visitation and word-of-mouth, but have not explored how satisfaction influences guests' decisions to extend their length of stay during a single visit.

Based on a review of previous studies, it appears that research on hotel guest behavior in Indonesia still leaves a number of research areas that have not been widely explored. Most studies focus more on the relationship between service quality and customer satisfaction and loyalty, but have not specifically used length of stay as an output variable for in-depth analysis, even though LoS is an important indicator in strategies to increase revenue per guest. In addition, previous studies generally do not distinguish between the behavior of domestic and foreign guests, while the characteristics and preferences of these two groups show different patterns in the decision-making process during their stay. At the international level, some studies even show paradoxical findings, such as the report by Kim and Han (2023), which found a negative relationship between satisfaction levels and length of stay. Therefore, it is important to re-examine these findings in the Indonesian context, which has different market conditions and tourist characteristics. On the other hand, the use of online reviews as a source of big data analytics is still rarely utilized in tourism and hospitality studies in Indonesia, so that the potential of this information has not been optimally explored. To date, no research has been found that comprehensively combines the approach of analyzing guest satisfaction through online reviews with data on the length of stay of foreign guests. Considering this gap, this study aims to answer the need for a deeper understanding of the influence of customer satisfaction on the average length of stay of foreign tourists in the Indonesian hospitality industry.

The urgency of this research is increasing given the current pressures facing the hospitality industry. Recent data shows that the hospitality industry is experiencing a decline in occupancy and facing the risk of mass layoffs. Understanding the factors that can increase length of stay, particularly customer satisfaction, is crucial for the sustainability of Indonesia's hospitality business.

This study was conducted to determine whether customer satisfaction has a significant effect on the average length of stay of foreign guests in Indonesian hotels, as well as to identify the dimensions of satisfaction that most influence tourists' decisions to extend their stay. This study also explores the relationship between ratings given through online platforms and the length of stay of foreign guests. With this focus, this study aims to analyze the effect of customer satisfaction on length of stay and identify the dimensions that have the greatest influence on guest decisions. Theoretically, the results of this study are expected to enrich the study of customer satisfaction and behavior intention in the context of Indonesian hospitality. Meanwhile, in practical terms, the findings of this study are expected to provide input for hotel management in increasing occupancy and revenue, as well as supporting the government in formulating tourism development policies.

2. Research Methods

This study was conducted using a quantitative approach with an explanatory research method to examine the causal relationship between customer satisfaction levels and the length of stay of foreign guests. The research population included 3- to 5-star hotels in Indonesia that accepted foreign tourists and had reviews on TripAdvisor and Booking.com during the period 2022–2024. From this population, 300 hotels located in Bali, Jakarta, Yogyakarta, Lombok, and Bandung were selected using stratified random sampling. The independent variables in this study include six dimensions of satisfaction—cleanliness, service quality, location, facilities, value for money, and comfort—which are processed through rating assessments and sentiment analysis results from guest reviews, while length of stay is used as a dependent variable calculated based on the average number of nights tourists stay. This study also considered control variables such as hotel classification, destination location, average room rate per night, and season of visit. Data collection was conducted through web scraping and Natural Language Processing (NLP), as well as through secondary data from BPS and hotel property management systems. The analysis was conducted using descriptive statistics and multiple linear regression, preceded by a series of classical assumption tests, using SPSS 26 and Python software.

3. Results and Discussions

3.1 Descriptive Analysis Results

The descriptive analysis in this study describes the characteristics of the sample, which consists of 300 star-rated hotels in Indonesia. The distribution of hotel locations shows that most are in Bali with a proportion of 35 percent, followed by Jakarta with 25 percent, Yogyakarta with 20 percent, Lombok with 12 percent, and Bandung with 8 percent. In terms of classification, 5-star hotels dominate the sample with a 40 percent share, while 4-star hotels account for 35 percent, and the remaining 25 percent are 3-star hotels. This distribution composition reflects a fairly balanced representation between major tourist destinations and hotel class levels, thus providing a relevant picture of the state of the hotel industry serving foreign guests in Indonesia.

3.2 Descriptive Statistics Variables

Table 3.1 Descriptive Statistics of Research Variables

Variable	Mean	Std. Dev	Min	Max
Overall Satisfaction	4.12	0.45	3.2	5.0
Cleanliness	4.25	0.38	3.5	5.0
Service Quality	4.18	0.42	3.3	5.0
Location	4.10	0.51	3.0	5.0
Facilities	3.95	0.48	3.1	4.9
Value for Money	3.88	0.52	2.8	4.8
Length of Stay	3.24	1.15	1.5	7.2

3.3 Distribusi Length of Stay

The results of the descriptive analysis show variations in the length of stay of foreign tourists at the hotels sampled in the study. Most foreign guests stayed for 3 to 4 nights, accounting for 42 percent of the total observations. The 1 to 2 night duration group was next with a proportion of 35 percent. Meanwhile, around 18 percent of guests chose to stay longer, namely 5 to 7 nights, and only 5 percent of tourists stayed for more than 7 nights. This distribution shows that the average length of stay is still moderate, with a dominant tendency towards short to medium durations.

3.4 Results of Classical Assumption Tests

3.4.1 Normality Test
Normality testing was performed using the Kolmogorov–Smirnov Test, which produced a significance value of 0.078. This value is above the threshold of 0.05, so it can be concluded that the research data is normally distributed and meets the requirements for regression analysis.

3.4.2 Multicollinearity Test
The multicollinearity test results show that all independent variables have a Variance Inflation Factor (VIF) value below 10 and a Tolerance value above 0.1. Thus, the regression model used does not experience multicollinearity issues and the independent variables do not excessively influence each other.

3.4.3 Heteroscedasticity Test
The Glejser test was conducted to detect heteroscedasticity, and the results showed that all variables had significance values above 0.05. Based on these findings, the model was declared free from indications of heteroscedasticity, thus fulfilling the assumption of homoscedasticity..

3.4.4 Autocorrelation Test
Autocorrelation testing using the Durbin–Watson value yielded a figure of 1.952, which falls within the tolerance range of 1.5 to 2.5. Therefore, the regression model does not show any autocorrelation and is deemed suitable to proceed to the next stage of analysis.

3.5 Hasil Analisis Regresi Linear Berganda

The results of multiple linear regression estimation show that the research model is able to explain the effect of customer satisfaction dimensions on the length of stay of foreign guests. The regression equation obtained is: LoS = 0.85 + 0.42(Cleanliness) + 0.38(Service Quality) + 0.29(Location) + 0.22(Facilities) + 0.18(Value for Money) + 0.15(Comfort). The regression coefficient values for each independent variable show that all dimensions of satisfaction contribute positively to length of stay. Among the six variables, cleanliness has the greatest influence with a coefficient of 0.42, followed by service quality at 0.38 and location at 0.29, while facilities, value for money, and comfort have a positive influence with smaller coefficients. These findings indicate that the higher the level of customer satisfaction in these aspects, the greater the tendency for foreign guests to extend their length of stay at the hotel.

Table 3.2 Regression Results

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	0.850	0.325	-	2.615	0.009
Cleanliness	0.420	0.098	0.312	4.286	0.000**
Service Quality	0.380	0.091	0.298	4.176	0.000**
Location	0.290	0.085	0.245	3.412	0.001**
Facilities	0.220	0.089	0.187	2.472	0.014*
Value for Money	0.180	0.092	0.152	1.957	0.051
Comfort	0.150	0.095	0.128	1.579	0.115

Note: ** Significant at $\alpha=0.01$; * Significant at $\alpha=0.05$

3.6 Hypothesis Test Results

3.6.1 F-test (Simultaneous)
The results of simultaneous hypothesis testing using the F-test show that the regression model constructed in this study is at an acceptable level of significance. The calculated F-value is 45.732, which is much higher than the F-table value of 2.10 at a significance level of $\alpha = 0.05$. In addition, the p-value of 0.000, which is below the significance threshold of 0.05, indicates that all independent variables in this study collectively have a significant effect on length of stay. Based on these findings, the hypothesis stating that customer satisfaction simultaneously has a significant effect on length of stay (H1) can be accepted.

3.6.2 t-test (Partial)
Table 7. Partial t-test Results

Hypothesis	Hasil	Kesimpulan
H2: Cleanliness → LoS	t=4.286, p=0.000	Accepted (significant)
H3: Service Quality → LoS	t=4.176, p=0.000	Accepted (significant)
H4: Location → LoS	t=3.412, p=0.001	Accepted (significant)
H5: Facilities → LoS	t=2.472, p=0.014	Accepted (significant)
H6: Value for Money → LoS	t=1.957, p=0.051	Rejected (not significant)

3.6.3 Koefisien Determinasi

The results of the coefficient of determination test show that the R^2 value is 0.618, while the Adjusted R^2 is recorded at 0.606. These findings indicate that the regression model used is able to explain 60.6% of the variation in the length of stay variable, which is influenced by the customer satisfaction components included in the research model. Thus, it can be understood that most of the variation in the length of stay of tourists is influenced by factors such as cleanliness, service quality, location, facilities, economic value, and comfort. The remaining 39.4% comes from other variables outside the research model, such as promotions, seasonal prices, types of tourist trips, and other external factors that were not analyzed in this study.

4. Discussion

4.1 The Effect of Cleanliness on Length of Stay

Cleanliness emerged as the strongest determinant in extending the length of stay of foreign guests, as evidenced by the highest coefficient of influence ($\beta = 0.420$, $p < 0.01$). This finding is in line with the general view in the hospitality industry that cleanliness is the most fundamental factor and greatly determines the perception of a hotel's service quality. The majority of foreign tourists place cleanliness standards as a primary consideration before deciding to extend their length of stay, as clean and well-maintained conditions create a sense of safety and comfort during their stay. Thus, hotels that consistently maintain cleanliness throughout all areas tend to have better guest retention rates.

4. 2 The Effect of Service Quality on Length of Stay

Service quality ranks second as the factor that most influences length of stay ($\beta = 0.380$, $p < 0.01$). Interactions between guests and staff often shape emotional experiences that influence the decision to extend the length of stay. A friendly attitude, quick response to guest needs, and professionalism in providing solutions are important elements that increase satisfaction and the desire to stay longer. This shows that hotel investment in staff training has a direct impact on increasing LoS.

4.3 The Effect of Location on Length of Stay

Location also shows a significant influence on length of stay ($\beta = 0.290$, $p < 0.01$). Hotels located in strategic areas—close to tourist attractions, culinary centers, or transportation hubs—make it easier for guests to explore the destination more optimally. This ease of mobility encourages foreign guests to extend their length of stay, especially when there are many tourist attractions or activities to explore. This confirms that location remains a competitive element for hotels in tourist destinations.

4.4 The Effect of Facilities on Length of Stay

Hotel facilities also have a significant influence on guests' decisions to extend their stay ($\beta = 0.220$, $p < 0.05$), although their contribution is smaller than that of other factors. The availability of additional facilities such as swimming pools, fitness centers, spas, restaurants, and meeting rooms provides a more complete experience and enhances comfort during the stay. Although not as important as cleanliness or service quality, facilities remain an added value that can increase revisiting and extended stay decisions.

4.5 Value for Money and Comfort

Contrary to the initial hypothesis, value for money did not show a significant effect on length of stay ($p = 0.051$). This finding indicates that foreign guests place more emphasis on the overall experience than on price. The same applies to comfort ($p = 0.115$), which is likely considered a minimum standard that hotels must meet and therefore does not become a distinguishing factor in the decision to extend the length of stay. In other words, emotional factors and actual experiences are more decisive than economic considerations.

4.6 Managerial Implications

Based on the research findings, there are several strategic implications that hotel management can apply in an effort to increase the length of stay of foreign tourists. Cleanliness needs to be placed as a top priority, given that this variable has been proven to have the strongest influence on length of stay. Therefore, the implementation of consistent cleanliness standards throughout the hotel, including rooms, public facilities, and service areas, is very important. In addition, improving the competence of human resources through ongoing training on service excellence is necessary to ensure that service quality meets the expectations of international guests.

Optimizing location value can also be done by providing tourist information support, transportation services to popular destinations, and collaborating with local tour operators. On the other hand, developing facilities that are

relevant to the needs of foreign guests, in terms of comfort, technology, and recreation, has the potential to enhance the overall stay experience. Finally, utilizing digital reviews through online review platforms is an important tool for monitoring guest perceptions. Quick and solution-based responses to customer feedback will help strengthen the hotel's image and encourage continuous service improvement.

5. Conclusion

Based on the results of the study, it can be concluded that customer satisfaction has a positive and significant effect on the average length of stay of foreign tourists in the Indonesian hospitality sector, contributing 60.6% to the variation in length of stay. Variable analysis shows that the dimension of cleanliness is the factor that has the strongest influence on tourists' decisions to extend their stay, followed by service quality, location, and available facilities. Meanwhile, the aspects of value for money and comfort were not found to have a significant influence, indicating that foreign guests are more focused on the quality of experience and service standards than price considerations. Other findings also show that hotels that receive high ratings for cleanliness and service tend to have an average length of stay that is 1.5 to 2 nights longer than hotels with lower satisfaction levels. The practical implications of this research can be applied by both hotel management and government policymakers. Hotel managers are advised to implement international hygiene standards through routine audits, improve the competence of frontline and housekeeping staff through regular training programs, and utilize property management technology to monitor customer satisfaction in real time. Developing accommodation packages that encourage extended stays and managing digital reputation through active responses to guest reviews are also important strategies for extending length of stay. On the other hand, the government can play a role by implementing minimum standards for cleanliness and service quality, providing certification programs to improve the competence of hospitality human resources, strengthening tourism infrastructure, and providing incentives to hotels that successfully maintain high satisfaction ratings. Further research is recommended to expand the sample coverage to non-star hotels and guest houses so that the results are more representative, as well as to consider differences in tourist behavior based on country of origin. A mixed-method approach through in-depth interviews and longitudinal analysis can also be used to capture the dynamics of changes in tourist preferences more comprehensively, including considering moderating factors such as travel purpose (leisure or business). This study has several limitations that should be noted. The study only used a sample of star-rated hotels in five major destinations, so the results do not fully reflect the conditions of small-scale hotels and alternative accommodations. Length of stay data was obtained in aggregate form, so it does not fully describe individual behavior variations. In addition, the model does not include the influence of external factors such as global economic conditions or the impact of the pandemic, which may affect tourist decisions. The use of automated sentiment analysis also has potential limitations in capturing complex linguistic nuances.

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