

Customer Considerations in Hotel Reservations Based on UI/UX of Application Design

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ABSTRACT

Digital transformation in the hospitality industry has increased customer dependence on hotel reservation applications. This study analyzes UI/UX factors influencing customer decisions when choosing a hotel booking application. A quantitative approach was used to survey 284 respondents who actively use hotel reservation applications. Data were analyzed using descriptive statistics and the Structural Equation Modeling (SEM) method to evaluate the relationship between ease of navigation, visual appearance, search features, information transparency, and transaction security on customer satisfaction and loyalty. Results indicate that ease of navigation (78%), visual appearance (82%), search features (85%), information transparency (90%), and transaction security (88%) significantly influence user satisfaction and loyalty. This study extends previous research by highlighting changes in digital behaviour and offering practical recommendations for developers. The findings suggest that users consider information transparency and effective search features the most critical factors. This study provides insight for application developers to continue improving UI/UX to increase customer satisfaction and loyalty in the increasingly competitive digital hospitality industry.

1. INTRODUCTION

The development of digital technology has brought significant changes in various industries, including the hospitality sector (Elli Setiyo Wahyuni, 2018). One of the most striking changes is the shift from a manual reservation system to a digital-based booking system through applications and websites. This progress makes it easier for customers to search for and book hotel rooms and increases competition between service providers in providing an optimal user experience (UX) (Rizdania et al., 2025; Sani et al., 2018).

In today's digital era, customers are looking for convenience in booking and demand a better experience through an intuitive user interface (UI). Good UI design must provide easy navigation, an attractive appearance, and functionality that supports the customer experience. Meanwhile, UX focuses on how customers feel and interact with the application, including the speed of finding information, ease of the reservation process, and the level of trust in the application used.

Recent studies show customers increasingly rely on digital applications to plan their trips. Based on the We Are Social report 2023 (We Are Social Meltwater, 2023), around 80% of tourists prefer hotel reservation applications to conventional methods because they are considered more practical and efficient. However, it is important to note that this data is global and may not fully represent local conditions in Indonesia. In

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addition, the report relies on online surveys across age groups and locations, so there may be variations in preferences based on certain demographics, such as age, geographic location, or level of technology adoption. Therefore, in the context of this study, the data is used as a general reference that needs to be adjusted to analyze local respondents in Indonesia. This research also reveals that as many as 40% of users abandon a hotel booking app if they have difficulty navigating or finding the information they need. This shows that the quality of UI/UX directly impacts the adoption rate and customer loyalty of a hotel booking app. One of the most striking changes is the shift from a manual reservation system to a digital-based booking system through applications and websites. This progress makes it easier for customers to search for and book hotel rooms and increases competition between service providers in providing an optimal user experience (UX).

In today's digital era, customers are looking for convenience in booking and demand a better experience through an intuitive user interface (UI). Good UI design must provide easy navigation, an attractive appearance, and functionality that supports the customer experience. Meanwhile, UX focuses on how customers feel and interact with the application, including the speed of finding information, ease of the reservation process, and the level of trust in the application used.

The development of digital technology has brought about significant changes in various industries, including the hospitality sector. One important change is the shift from a manual to a digital-based booking system through applications and websites. Now, customers can easily search for information, compare prices, read reviews, and make reservations in just a few clicks. However, this convenience cannot be separated from the UI/UX design quality applied in the application.

UI/UX in a hotel booking application plays a vital role in determining how comfortable and efficient the user experience is. A good UI includes an attractive visual design, clear structure, and colours and icons that make it easy for users to understand the application's functionality. Meanwhile, UX focuses more on how users interact with the application, whether the navigation is easy, whether the booking process can be done without obstacles, and whether the information provided is sufficient to help users make decisions.

Although many hotel booking apps are available, not all can meet user expectations. Some apps still experience obstacles such as complicated interfaces, non-transparent information, or inefficient search features. These issues can cause users to switch to other apps that offer a better experience. Therefore, app developers need to understand the key factors influencing customer satisfaction and loyalty to improve the quality of their services. This study focuses on how UI/UX influences customers' decisions when choosing and using hotel reservation apps. By analyzing aspects such as ease of navigation, visual appearance, search features, information transparency, and transaction security, this study aims to provide deeper insights into how design elements can improve customer experience and drive user loyalty to the app.

2. METHODS

This study uses a quantitative approach with a survey method conducted on customers using the XYZ hotel reservation application. This method aims to understand the main factors influencing customer decisions when choosing an application based on the UI/UX offered. Figure 1 shows the features of the XYZ hotel reservation application.

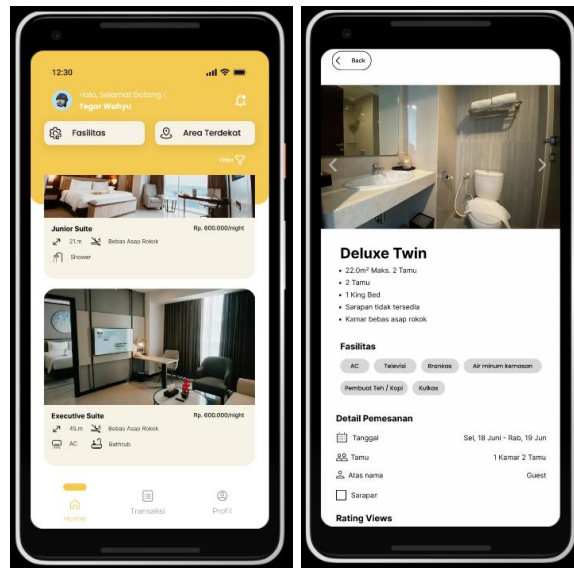


Figure 1. The feature of the XYZ hotel reservation application
Source: XYZ Hotel Reservation App

Types of research

This study uses a descriptive quantitative approach to analyze how UI/UX factors in hotel reservation applications affect customer decisions. The quantitative approach was chosen because it allows for numerical data-based analysis that can provide objective and measurable results. This study collects data using a survey method from hotel reservation application users to identify UI/UX factors contributing to customer experience and loyalty (Ghanad, 2023).

Population and Sample

The population in this study were customers who had used hotel reservation applications in Indonesia, both for business and personal travel. The sample was selected using a non-probability sampling method with a snowball sampling technique; the initial respondents were asked to recommend other potential respondents with experience using hotel reservation applications. This study involved 384 respondents, considered representative based on the Slovin formula (1960), with a confidence level of 95% and a margin of error of $\pm 5\%$ (Team, 2023). Based on this calculation, the minimum number of samples needed was around 384 respondents, which were then used as the basis for this study.

Research Instruments

The data in this study were collected through an online questionnaire (online survey) shared through the Google Forms platform and social media such as WhatsApp and Telegram. The questionnaire consists of three main parts:

- Respondent demographics

The questionnaire consists of questions about age, gender, and frequency of use of hotel booking applications (Tankala, 2022).

- **UI/UX Aspect**
The questionnaire also asked about ease of navigation, visual design, search features, information transparency, and transaction security (Roth, 2017).
- **User satisfaction and loyalty**
Last but not least, the questionnaire asked about users' overall experience using the app and their likelihood to continue using or recommending it (Singgalen, 2024).

The Likert scale 1-5 is used to measure the level of respondent satisfaction with these UI/UX factors, with the scale:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Before distributing the questionnaire, validity and reliability tests were conducted to ensure the research instrument could accurately measure the studied variables.

Data Analysis Techniques

The collected data were analyzed using descriptive statistical methods. In addition, multiple linear regression analysis was conducted to determine the effect of UI/UX variables on customer decisions when choosing a hotel reservation application. Model testing was carried out using the Structural Equation Modelling (SEM) (Abraham et al., 2019) method to identify relationships between variables in more depth (Hidayat & Patricia Wulandari, 2022).

The collected data was analyzed using two main approaches: descriptive statistics and inferential analysis.

1. Descriptive Statistics

Descriptive statistics describe the distribution of respondent data, such as the average and percentage of each variable studied. The results are presented in tables, graphs, and diagrams to provide a more precise understanding (Kaur et al., 2018).

2. Structural Equation Modeling (SEM) Analysis

This study uses the Structural Equation Modeling (SEM) (Abraham et al., 2019) method to test the relationship between UI/UX factors and customer decisions and also to identify relationships between variables in more depth (Hidayat & Patricia Wulandari, 2022). SEM was chosen because it can analyze direct and indirect relationships between variables in a research model, test the theoretical model as a whole, not just partial relationships between variables, and measure the effectiveness of UI/UX factors in influencing customer satisfaction and loyalty.

The stages of SEM analysis include:

- **Goodness of Fit Test**
Checking whether the research model fits the data obtained.
- **Model Construction Test**
Conducting reliability and validity testing of research constructs.
- **Path Analysis**
Assess the relationship between variables and the significance of their influence.

- Hypothesis testing in SEM uses the Critical Ratio (CR) and p-value, with the following testing criteria:
If $CR > 1.96$ and $p\text{-value} < 0.05$, the relationship between variables is significant.
If $CR < 1.96$ or $p\text{-value} > 0.05$, the relationship between variables is insignificant.

3. Research Stages

- a. Data Collection
The questionnaire was distributed online to users of the hotel booking application.
- b. Data Processing
The data obtained from the questionnaire was processed using statistical software to get accurate results.
- c. Data Analysis
The analysis was conducted to test the research hypothesis and evaluate the extent to which UI/UX factors contribute to user satisfaction and decisions.
- d. Interpretation and Conclusion
The analysis results provide recommendations regarding UI/UX design improvements in hotel reservation applications to improve user experience.

3. RESULTS AND DISCUSSIONS

Results

1. Respondent Profile

The study involved 384 respondents, with 51.6% male and 48.4% female participants. Most respondents were under 35 (77.1%), indicating that younger users dominate the digital hotel reservation market. Additionally, 74.7% of respondents reported using hotel booking apps more than three times yearly, demonstrating a strong digital adoption rate. The demographic profile of respondents can be seen in Table 1 below.

Table 1. Respondents Profile

Category	Qty (n = 384)	Percentage (%)
Sex		
Male	198	51.6
Female	186	48.4
Age (years old)		
< 25	154	40.1
25 - 34	142	37.0
35 - 44	58	15.1
≥ 45	30	7.8
Frequency of Application Usage (times/year)		
1-2	97	25.3
3-5	182	47.4
> 5	105	27.3

Source: Processed by the author

From the data above, most respondents are under 35 (77.1%), indicating that the younger generation uses hotel reservation applications more widely. In addition, 74.7% of respondents use the application more than 3 times a year, indicating a relatively high level of trust in this digital service.

2. Evaluate UI/UX Factors on User Experience

Respondents were asked to rate various UI/UX factors influencing their experience using the hotel reservation application. Table 2 shows the analysis results based on the satisfaction level of respondents with the UI/UX aspects tested.

Based on the data analysis that has been carried out, several main findings were found regarding the influence of UI/UX on customer decisions in using hotel reservation applications:

- a. **Ease of Navigation**
78% of respondents emphasized that easy and intuitive navigation significantly impacts their willingness to use a hotel booking app (Dewi & Cahyaningrum, 2024). Applications with complex or confusing navigation are more likely to be abandoned. Based on TAM theory (Davis, 1989) (Marikyan, 2006). Perceived ease of use is critical to technology acceptance.
- b. **Visual Display/Appearance**
Around 82% of respondents admitted that an attractive visual design increases their trust in an app. Attractive colours, icons, and layouts can improve the user experience (Syifa Tanjung et al., 2023).
- c. **Search and Filter Features**
More than 85% of respondents stated that effective search and filter features are beneficial in finding hotels that match their preferences. Apps with complex and difficult-to-use search features tend to be avoided (Ahmadzadegan et al., 2020).
- d. **Information Transparency**
As many as 90% of respondents emphasized that clear and transparent information regarding prices, hotel facilities, and cancellation policies greatly influenced their decisions (Masyitah, 2020).
- e. **Transaction Security**
Around 88% of respondents considered the security factor in online transactions very important. Security indicators such as padlock icons or transaction notifications have increased users' sense of security (Aftab et al., 2024).

The research findings are shown in following Table 2.

Table 2. Respondents' Assessment of UI/UX Factors

No	UI/UX Factors	Score Average (1-5)	Percentage of Respondents (%)
1	Ease of Navigation	4.3	78
2	Visual Display	4.4	82
3	Search and Filter Features	4.5	85
4	Information Transparency	4.7	90
5	Transaction Security	4.6	88

Source: Processed by the author

Discussion

Based on the results obtained, it can be seen that UI/UX factors significantly influence customer satisfaction when using hotel reservation applications.

The Effect of Ease of Navigation on User Satisfaction

The study results showed that 78% of respondents felt that ease of navigation was essential in their experience using a hotel reservation application. Customers prefer applications with simple layouts and clear menu structures. This finding aligns with Davis's (1989) research in the Technology Acceptance Model (TAM), which states that perceived ease of use directly impacts user satisfaction. Additional interviews with several respondents found that applications with complex navigation or requiring too many steps in the reservation process often cause users to switch to other, more intuitive applications. Therefore, application developers must ensure the reservation flow is as simple as possible with minimal hotel search and booking obstacles. Ease of navigation

and attractive visual displays help customers be more comfortable exploring the application. Intuitive design and clean visuals enhance aesthetics and ensure customers can complete the reservation process faster and without obstacles.

The Importance of Visual Appearance in Increasing User Trust

As many as 82% of respondents stated that an attractive visual appearance influences their decision in choosing an application. Professional colours, icons, and interface designs can increase customer trust in the application. In the research of Yuan (2024), it was stated that the aesthetic aspect of UI directly relates to the application's credibility. Users are likelier to trust applications with a clean, responsive, and modern design than applications with an old or confusing appearance.

The Role of Search and Filter Features in Increasing User Effectiveness

Most respondents (85%) acknowledged that effective search and filter features make it easier for them to find suitable hotels. Features such as filtering based on price, location, amenities, and customer reviews greatly help users in choosing a hotel that suits their needs. Several respondents also highlighted the importance of machine learning-based recommendation features, where the system can provide relevant hotel suggestions based on the user's search history and preferences. Implementation of this technology can improve the personalization experience in the application.

Effective search and filter features also play a key role in user experience. Customers tend to choose apps that allow them to find hotels according to their preferences easily. The customer's choice shows that personalization in search and filters is essential in developing a hotel reservation app.

Information Transparency as a Key Factor in Customer Decisions

The transparency of information factor scored the highest (90%) in this study. Many users avoid apps that do not provide clear information about the total price, cancellation policy, or additional taxes. This result indicates that customers prefer apps that display the final price transparently from the beginning of the reservation process without hidden fees. Some well-known apps such as Booking.com and Agoda have implemented this strategy by labelling themselves "No Hidden Fees", which is highly appreciated by users.

Transparency of information was the most crucial factor in this study, with 90% of respondents considering clear information about prices, facilities, and policies to be very influential in their decisions. The survey shows that customers are more likely to choose applications that provide detailed and transparent information without hidden costs or confusion in reading terms and conditions.

Although the level of information transparency scored 90% in respondents' perceptions, this finding needs to be interpreted cautiously. The possibility of sampling bias can occur considering the characteristics of respondents who are mostly active users of digital applications, so they tend to pay more attention to information transparency. In addition, this study has not fully compared the effect of information transparency on other variables, such as price, which in practice can be a dominant factor in decision-making. Therefore, although transparency is considered important, further research is needed to evaluate the relative priorities between transparency, price, and other factors in determining the choice of hotel reservation applications.

Transaction Security as a Crucial Element in Application Adoption

As many as 88% of respondents considered transaction security the main factor in choosing a hotel reservation application. Security in digital payments is a particular concern, especially with the increasing online fraud cases. As a solution, applications must adopt a two-factor authentication (2FA) system, real-time transaction notifications, and high-level encryption technology. In addition, user trust can also be strengthened by the application's collaboration with trusted payment providers such as Visa Secure, Mastercard SecureCode, or verified digital wallet services.

With the increasing online fraud cases, customers are becoming more selective in using applications that offer a secure payment system. Customers increasingly demand applications with apparent security features, such as transaction notifications and two-factor authentication.

4. CONCLUSION

This study shows that UI/UX factors significantly influence customer decisions when using hotel reservation applications. Ease of navigation, attractive visual appearance, effective search features, information transparency, and transaction security are the main factors considered by customers. An app with good UI/UX increases user satisfaction and drives their loyalty to the app. Therefore, app developers must continue innovating and testing UI/UX designs to ensure their apps remain relevant and competitive.

The results of this study can be a reference for the hotel industry and application developers in designing more effective UI/UX design strategies to improve user experience and the competitiveness of hotel reservation applications in the increasingly competitive digital market. UI/UX factors critically influence customer decisions regarding hotel reservation applications. Prioritizing ease of navigation, visual appeal, search effectiveness, information transparency, and transaction security is essential for increasing user satisfaction and loyalty. This study relies on perceived data without directly observing user behaviour, which may introduce bias. Future research should triangulate findings using behavioural analytics.

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