

The Influence of Security and Ease of Use on Repurchase Intention on Virtual Hotel Operator (VHO) Websites

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Abstract

The advancement of digital technology has significantly driven the growth of the hospitality industry, one of which is the emergence of Virtual Hotel Operators (VHO), which serve as intermediaries between independent hotels and online booking platforms. This study examines how security and ease of use influence repurchase intentions on VHO websites. Quantitative data were collected from 200 Gen Z individuals who had previously booked hotels through VHO websites and analyzed using SEM-Lisrel 8.80.

The results show that both security and ease of use significantly affect repurchase intentions. These findings are particularly relevant for Generation Z, as digital-native consumers with high expectations regarding security and ease of use in their digital experiences. If VHO platforms meet these expectations, they are likely to encourage repurchase intentions. Managerial implications include enhancing security systems through encryption and routine security audits, as well as optimizing ease of use with intuitive interface designs and more personalized services. These strategies are expected to improve customer retention and strengthen VHO's position in the increasingly competitive digital hospitality industry.

Keywords: Security, Ease of Use, Repurchase Intention, Virtual Hotel Operator

Introduction

Generation Z, comprising individuals born between 1995 and 2012, has been extensively exposed to digital technologies from an early age. (Cho et al., 2018; Theocharis et al., 2025)(Rizkyla et al., 2024). This familiarity has cultivated strong expectations for convenience, transparency, security, and efficiency in digital interactions, particularly in the context of online hotel bookings, where activities such as information retrieval, price comparison, and review analysis are integral to their decision-making process (Cho et al., 2018; Theocharis et al., 2025). Generation Z prefers accommodations that are Instagrammable, equipped with digital facilities, and strategically located near tourist attractions and culinary spots. They also prioritize ease of booking and online payment, including "buy now, pay later" options (Idn Times, 2024). (Khan et al., 2019; Rita et al., 2019)The process of booking hotels and travel tickets has become more accessible and streamlined through the use of Online Travel Agent (OTA) platforms and Virtual Hotel Operator (VHO) websites. OTAs act as intermediaries between customers and hospitality companies, offering a variety of accommodation options and online booking services—for example, Tiket.com, Traveloka, Booking.com, Tripadvisor, and AeroRoutes (Nugroho & Hati, 2020). VHOs, which have been known in Indonesia since 2015, focus on small, independent, and unbranded hotels through direct partnership systems, without owning the properties themselves. Some of the main VHOs operating in Indonesia include OYO Rooms, RedDoorz, Airbnb, and Bobobox (Nugroho & Hati, 2020)

Data from SimilarWeb shows that VHO websites still lag behind OTA sites in terms of rankings and visitor numbers. Websites with low traffic are at risk of being overlooked, while high traffic increases the likelihood of converting visitors into customers and encourages repurchase intention (Arifin et al., 2019) (Trivedi & Yadav, 2018).

Table 1. Daily Visit Data on the Service Menu of Online Hotel Booking Sites, 2024.

No	Website Name	Daily Visit Time (In Minutes)	Bounce Rate (In Percent)	Category
1.	Traveloka.com	02:42	37.91	OTA
2.	Tiket.com	02:54	27.21	OTA
3.	Booking.com	03:23	34.39	OTA
4.	Tripadvisor.com	02:43	38.58	OTA
5.	Agoda.com	06:02	30.27	OTA
6.	Reddoorz.com	02:21	39.27	VHO
7.	Oyoro.com	02:34	42.55	VHO
8.	Airbnb.com	01:03	44.44	VHO
9.	Bobobox.com	00:27	52.86	VHO

Based on Table 2, OTA websites show higher visit durations compared to VHO sites. VHO websites also have a higher bounce rate, indicating possible issues with navigation or less engaging content. This highlights the importance of improving VHO website design and usability to enhance the user experience and ultimately drive repurchase intention. OTAs are considered superior as they offer a wider range of services and features.

Consumers' repurchase intention is influenced by the level of website security, where the protection of personal data fosters user trust and loyalty (Khan et al., 2019). Good security management, including data protection policies (Blut et al., 2015), plays an important role in encouraging repurchase intention (Rita et al., 2019). However, VHO sites such as RedDoorz face challenges due to a major data breach involving 5.9 million customers, raising user concerns and highlighting the need to enhance security systems (Straitisme, 2020). (Parthasarathy & Bhattacharjee, 1998; Reichheld & Scheffer, 2000).

Gaining deeper insights into the determinants of repurchase intention enables companies to formulate more effective strategies aimed at improving the overall user experience. This study is important for the online booking industry, particularly VHOs, in addressing digital challenges by emphasizing service quality improvement and user trust as key priorities. The research also aims to address unresolved issues, validate previous findings, and develop new perspectives that are relevant to current developments.

Literature Review

Repurchase intention refers to a consumer's likelihood to buy the same product or service again in the future (Hellier et al., 2003). Two main factors often linked to repurchase intention in online settings are security and ease of use. Perceived security means how much consumers feel their personal data and online transactions are safe from unauthorized access or misuse (Flavián & Guinalú, 2006). Important aspects of security include protecting user data, having clear privacy policies, and putting measures in place to prevent security threats (Qalati et al., 2021). Meanwhile, ease of use comes from the Technology Acceptance Model (Davis, 1989) and relates to how simple and convenient users find the platform or system. This involves how easy it is to book or order, navigate the website, understand the information presented, the website's design, and the ability to customize the experience (Trivedi & Yadav, 2020). Many studies have found that both security and ease of use encourage customers to repurchase products or services online

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(Flavián & Guinalú, 2006; Kim et al., 2008a; Pavlou, 2003). Besides these, other factors such as the quality of website services and customer satisfaction also play important roles. However, some research has shown that the impact of security or ease of use on repurchase intention may not always be significant, depending on the type of product, user group, or cultural background (Hassan & Sharif, 2015; Lee, 2019). A study by (Shin et al., 2013) found that website security does not have a direct effect on repurchase intention, but rather influences it indirectly through the mediation of electronic trust. These mixed findings suggest more detailed research is needed to understand these factors in specific online markets. Notably, most past studies focus broadly on e-commerce without much attention to special sectors like Virtual Hotel Operators (VHOs), especially in developing countries like Indonesia. To visualize the theoretical relationships among the variables discussed, this study proposes a conceptual framework, as shown in Figure 1. The model illustrates how security and ease of use are hypothesized to influence repurchase intention.

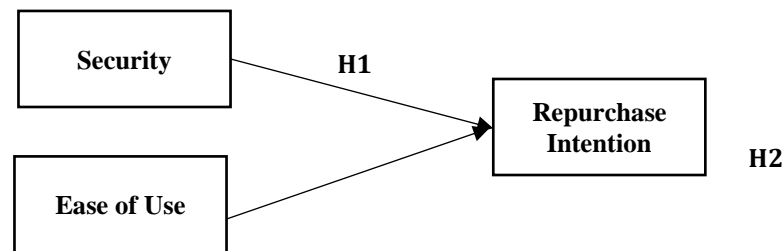


Figure 1. Conceptual Model

Hypothesis

H1: Security significantly impacts repurchase intention

H2: Ease of Use significantly impacts repurchase intention

Method of Study

Research Design

This study employs a quantitative method to analyze the factors influencing the repurchase intention of visitors to Virtual Hotel Operator (VHO) websites. The quantitative method was chosen because it allows for objective and systematic measurement of the relationships between variables.

(Trivedi & Yadav, 2020)Trivedi & Yadav, 2020Trivedi & Yadav, 2020

Data Collection Techniques

This study employs a questionnaire as its primary data collection method, wherein respondents are presented with a series of systematically organized written questions. The questionnaire is administered directly by the researcher through an online survey, facilitated via Google Forms, and disseminated using various social media channels, including Instagram, WhatsApp, Line, and Facebook

Population and sample

The population of this study consists of individuals who have visited Virtual Hotel Operator (VHO) websites. The sampling method used in this research is non-probability sampling. According to (Sugiyono (2017:84), non-probability sampling is a sampling technique that does not provide equal opportunity for every element or member of the population to be selected as a sample. The technique used is purposive sampling. Purposive sampling is a sampling technique based on specific predetermined criteria (Sugiyono, 2012:85). The selection of subjects to be used as samples or respondents is carried out through purposive sampling with the following criteria:

1. Individuals who have previously made a booking through Virtual Hotel Operator websites such as RedDoorz, Oyorooms, Airbnb.com, and Bobobox.com.
2. Aged between 17 and 28 years old.
Residing in Indonesia.

This study uses the sampling method proposed by Roscoe (1975) as cited in Uma Sekaran (2003), with a sample size of 200 respondents, in accordance with the recommended range of 30 to 500 samples. A larger sample size increases the accuracy of the goodness of fit and provides better representation of the population.

Results

Validity dan Reliability Test

The latent variables in this study include security, ease of use, privacy, and repurchase intention. Table 2 presents the results, where an indicator is considered valid if the Standardized Loading Factor (SLF) is ≥ 0.50 . Reliability is achieved when the Construct Reliability (CR) is ≥ 0.70 and the Average Variance Extracted (AVE) is ≥ 0.50 . Based on the data in Table 2, all indicators meet the criteria for validity and reliability.

Table 2. Validity and Reliability Test Result (n=200)

Latent Variable	Indicators	SLF	CR	AVE	Information
Security	SC1	0,85	0,84	0,65	Valid & Reliable
	SC2	0,78			
	SC3	0,79			
Ease of Use	EOU1	0,69	0,86	0,56	Valid & Reliable
	EOU2	0,69			
	EOU3	0,80			
	EOU4	0,75			
	EOU5	0,79			
Repurchase Intention	RI1	0,84	0,85	0,65	Valid & Reliable
	RI2	0,79			
	RI3	0,81			

Sources: Processed data by SEM-LISREL v8.8 (2025)

Overall Model Fit

Table 3 presents the results of the goodness-of-fit measurement. This study evaluates several fit indices, including RMR, RMSEA, GFI, NFI, NNFI, CFI, IFI, RFI, and AGFI. The RMR value of 0.020 indicates a good fit, as it satisfies the criterion of ≤ 0.05 . Similarly, the RMSEA value of 0.020 also reflects a good fit, meeting the threshold of ≤ 0.08 . Furthermore, the other fit indices—NFI, NNFI, CFI, IFI, RFI, GFI, and AGFI—also fulfill the required standards. These results suggest that the model used in this study effectively represents the relationships among the latent variables.

Table 3. Overall Model Fit Test Result

INDEKS	GOODNESS OF FIT	CRITERIA	EXPLANATION
RMR	0,029	$\leq 0,05$	Good fit
RMSEA	0,026	$\leq 0,08$	Good fit
ECVI	0,46	0,46 ; 0,49	Good fit
AIC	2044,73	$\approx 2022,73$	Good fit
NFI	0,98	$\geq 0,90$	Good fit
NNFI	1,01	$\geq 0,90$	Good fit
PNFI	0,73	$\leq 0,90$	Good fit
CFI	1,00	$\geq 0,90$	Good fit
IFI	1,00	$\geq 0,90$	Good fit

RFI	0,98	$\geq 0,90$	<i>Good fit</i>
GFI	0,97	$\geq 0,90$	<i>Good fit</i>
AGFI	0,96	$\geq 0,90$	<i>Good fit</i>

Sources: Processed data by SEM-LISREL v8.8 (2025)

Structural Model

The structural model's suitability is assessed by comparing the structural equation coefficients to a predetermined level of significance. As indicated in Table 2, the structural model used in this study meets the criteria for both validity and reliability. A model is deemed suitable when it achieves a significance level of 0.05, or a 95% confidence level, which corresponds to a t-value exceeding 1.96. The results of the analysis show that the structural model accurately reflects the relationships among the research variables, based on these standards. Thus, this model is deemed appropriate for testing hypotheses and fulfilling the objectives of the study.

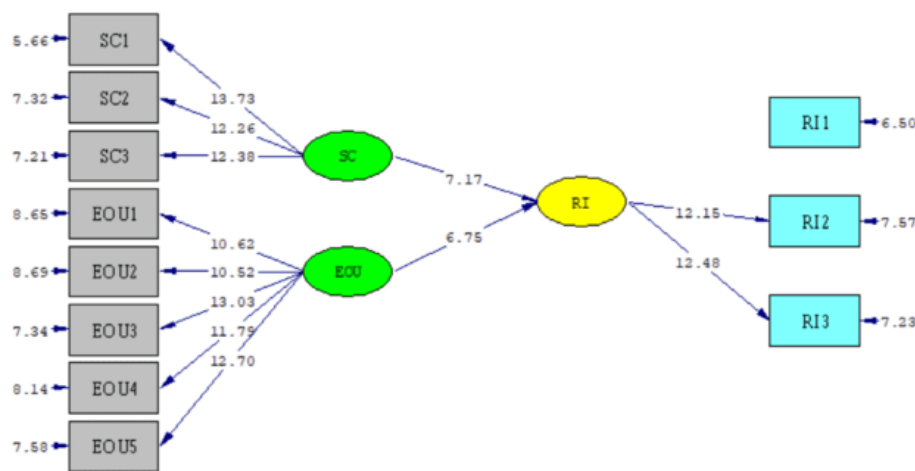


Figure 2. Structural Model

Sources: Processed data by SEM-LISREL v8.8 (2025)

Hypothesis Test

This study utilizes the SEM LISREL V8.8 analysis tool. Following a descriptive analysis, further analysis was conducted to examine the relationships between variables. The study includes 2 hypotheses, covering aspects such as security, ease of use and repurchase intention. The findings indicate that all hypotheses are supported. Below are the results of the hypothesis analysis:

Tabel 4. Hypotesis Testing (Direct Effect)

Hypotesis	Coefficient	T-Tabel	T-Value	Result
H1. SC → RI	0,46	1,96	7,17	Suported
H2. EOU → RI	0,36	1,96	6,75	Suported

Sources: Processed data by SEM-LISREL v8.8 (2025)

Discussion

The results of this research reveal that both security and ease of use play a crucial role in shaping consumers' intention to make repeat purchases. This suggests that the security and user-friendliness of Virtual Hotel Operator (VHO) platforms—such as RedDoorz, OYO Rooms, Bobobox, and Airbnb—play a crucial role in influencing consumers' willingness to make repeat bookings online. This influence becomes even more apparent when viewed in relation to Generation Z, a rapidly growing segment of digital-native consumers with high expectations for fast, secure, and seamless

digital experiences (Priporas et al., 2017; Turner, 2015). As a generation raised in the era of smartphones and instant services, Gen Z places strong emphasis on the ease of use of digital platforms and the protection of their personal data (Joiner et al., 2013)

Security features such as encrypted payment systems, data protection, and transparent privacy policies are no longer seen as mere added value, but rather essential requirements to maintain Gen Z's engagement (Fromm & Read, 2018). Likewise, platforms offering intuitive interfaces, easy navigation, and efficient booking processes are more likely to foster repurchase intention among Gen Z users. This is in line with the Technology Acceptance Model (TAM), which posits that users are more likely to make repeat purchases when the technology is perceived as easy to use and contributes to a positive and efficient experience.

Several previous studies support these findings. For instance, (Kim et al., 2008) found that security and ease of use significantly influence consumers' online purchasing behavior across various e-commerce platforms. Similarly, (Gefen et al., 2003.) emphasized that users who perceive an online system as both secure and easy to navigate are more likely to trust the platform and engage in repeated transactions. In the context of Generation Z, (Singh et al., 2016) noted that this generation demands highly intuitive and secure digital interfaces, which directly shape their online decision-making processes. Furthermore, a study by (Rita et al., 2019) on online travel booking platforms found that ease of use and security positively impact trust, which in turn boosts their repurchase intention. These studies highlight the consistent importance of technological usability and data security in influencing consumer behavior in the digital economy—particularly among Gen Z, who are not only tech-savvy but also value seamless, trustworthy online experiences.

Conclusion

The findings of this study indicate that customers' repurchase intention on Virtual Hotel Operator (VHO) websites is influenced by security and ease of use. VHOs should prioritize reliable security systems, easy accessibility, and responsive customer service to enhance repeat purchases. This study provides strategic guidance for VHOs in improving website performance and designing effective marketing strategies to encourage repurchase. However, since these findings generalize visitor behavior across VHO platforms, it is important to recognize that each platform such as RedDoorz, OYO, Airbnb, and Bobobox has significant differences in features and services. Moreover, VHOs differ from Online Travel Agents (OTAs), which offer bookings not only for hotels but also a variety of travel services. Therefore, future research is recommended to conduct more specific analyses of individual platforms or comparisons between VHOs and OTAs to gain deeper and more contextual insights into consumer behavior. Additionally, further studies should expand the variables examined by including factors such as customer satisfaction, user experience, information quality, and brand reputation to provide a more comprehensive understanding of the determinants of repurchase intention on VHO websites. The research population can also be broadened by involving respondents from various regions or countries to explore cross-cultural differences in consumer behavior related to security and ease of use when utilizing hotel booking platforms.

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