

# A Study of Safety and Security Enhancement Measures of Sharing Accommodation Platform ‘Airbnb’

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## Abstract

This research examines the intricate challenges of establishing trust and ensuring safety in the sharing economy, focusing on the renowned peer-to-peer platform Airbnb. Despite the platform's global success, concerns persist regarding safety and security measures. The study employs a mixed-methods approach, combining quantitative surveys and qualitative interviews to comprehensively explore user perceptions and identify areas for improvement. Findings indicate a generally positive outlook on Airbnb's safety measures, particularly identity verification, payment security, and accuracy. However, nuanced concerns exist, particularly in areas like background checks, neighborhood safety and emergency protocols. The study underscores the importance of sustained investment in safety resources, improved communication, and conflict resolution strategies. Furthermore, it advocates for comprehensive guest/host education programs and collaboration with industry experts to address evolving safety challenges in the dynamic landscape of the sharing economy.

Keyword : Sharing Economy, Airbnb, Security Measures, Background Checks, Safety

## 1. Introduction

The sharing economy, defined by the direct exchange of products and services between individuals, has revolutionised multiple industries, including the hospitality sector. The community one can engage with encompasses not only relatives and friends but also almost all individuals worldwide. This is referred to as ‘stranger sharing’ [1], allowing all to engage in peer-to-peer interactions. Airbnb is an online marketplace and platform that facilitates the connection between individuals who want to rent out their underutilised premises and individuals who are seeking short-term housing options for tourism purposes. Airbnb was established in 2008. There are currently over 7 million active listings on Airbnb, spread throughout 100,000 locations in over 220 countries and regions. Additionally, there are 4 million hosts and a total of over 1.5 billion guest arrivals on Airbnb [2]. This research study analyses the safety and security measures used by Airbnb to safeguard its users and their property.

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Received(July 21, 2023), Review Result(1st: August 11, 2023, 2nd: September 17, 2023), Accepted(December 8, 2023), Published(December 31, 2023)



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The research utilizes pertinent literature on the sharing economy, Airbnb's safety and security protocols, and case studies of safety incidents on the platform. The research findings indicate that Airbnb has successfully taken several steps to effectively address safety and security issues. The measures encompass visitor and host verification procedures, property safety precautions, personal safety protocols, privacy protection systems, and technology-driven safety solutions [3]. Nevertheless, the study also highlights areas that can be improved upon and proposes possible modifications to boost safety and security on the Airbnb network.

When examining the existing literature on safety and security measures in the sharing economy, it is important to have a more comprehensive understanding of the necessity of improving these measures in the intricate setting of peer-to-peer platforms. Hence, the objective of this research is to address the subsequent research inquiries. First, what are the key aspects that contribute to measuring the safety and security of sharing accommodation platforms? Secondly, how do users perceive the current safety and security measures on the peer-to-peer platform Airbnb? Lastly, considering the intricate nature of interactions-both online and in person-with unfamiliar individuals, how can safety and security measures be improved on peer-to-peer platforms in the sharing economy?

## **2. Literature Review**

The objective of this literature study is to comprehensively analyze the safety and security factors in the sharing economy and their effectiveness measures. The literature review will be the answer to the first question: What key aspects contribute to measuring safety and security in sharing accommodation platforms?

The fundamental idea behind accommodation sharing is to make vacant rooms or guestrooms available to travelers for a set period of time in exchange for a fee or for free through an online platform. Room sharing, like other enterprises in the sharing economy, is not a novel concept in many nations. The rapid growth of accommodation sharing through digital platforms has significantly expanded in numerous countries. This is mostly due to the effective matching of hosts and guests facilitated by these platforms, as well as the safe payment and transaction trust provided by technology [4].

### **2.1 Safety and Security Definition**

Safety refers to the condition of being protected from harm or danger, and it encompasses the implementation of strategies to avoid accidents and injuries [5]. Security refers to the implementation of

steps to protect against potential dangers and unauthorized entry, specifically in relation to information and cyber risks [6]. These definitions offer a thorough comprehension of the actions implemented to guarantee the welfare of individuals and safeguard assets and information.

## 2.2 Aspects of Safety and Security

This literature study examines the various aspects of safety and security issues related to Airbnb, including trust processes, risk perception, safety considerations, security obstacles, and regulatory frameworks. The aspects of safety and security are list in [Table 1].

[Table 1] Aspects of Safety and Security

Online Aspects	Technical Aspects	Privacy Assurance Aspect
Trust Mechanism Verification Review Rating	Service Quality Information Quality Technology Enhancement	Privacy and Security Risk

In the ever-changing world of sharing accommodations, as seen on platforms like Airbnb, trust plays a crucial role in achieving success. This trust is built through complex mechanisms such as online profiles, ratings, and verification systems [7]. Nevertheless, the task of accurately assessing trustworthiness remains difficult due to the presence of fake reviews and misrepresentation. This highlights the importance of clear communication [8]. Risk perception has a simultaneous impact on customer behavior in the sharing economy. Factors such as potential hazards to property damage and personal safety influence user decisions [9]. The regulatory framework, which is controlled by zoning regulations, plays a crucial role in upholding safety standards and ensuring a harmonious society. However, there are ongoing discussions about the most effective degree of regulation [10]. The interconnected aspects highlight the intricate relationship between trust, risk, safety, and security in the sharing accommodation model.

## 2.3 Online and Interpersonal Safety and Security

When individuals engage in accommodation sharing on the site, they often discover that the actual accommodation differs from the photographs displayed on the profile, leading to unmet expectations. Additionally, both guests and hosts may encounter significant safety and security concerns [8]. The issue of ensuring the safety and security of visitors is of utmost importance, as any security incidents experienced by guests during their stay at the accommodation establishment might result in discontent

and increased discomfort. As a result, tourists opt out of using such facilities and instead choose other sharing economy options, leading to a shift in their consumer behavior towards seeking a wider range of choices [11]. Current literature suggests that while planning a tourist vacation, travelers today consider not only the availability of social interactions, relaxation, and amenities but also safety and security when evaluating the tourism infrastructure. People are inclined to spend a higher amount on a lodging establishment that possesses safety and security certifications. Furthermore, providing accommodation would have an adverse effect on small and medium-sized hotel operations [12]. In order to mitigate any harm or disadvantage, it is essential to develop the necessary level of regulation to control lodging-sharing services. This will ensure the safety of clients and allow hosts to properly prepare their services and enterprises [13].

The studies have identified three main areas of security requirements and concerns as seen by the host, users, and the local community. These categories include crucial guarantees of privacy and safety, the uncertainty that arises from the unfamiliarity between hosts and guests, and the overall security worry related to the Airbnb network. These findings highlight the need to address safety concerns on Airbnb, as concerns about trust and safety are major barriers to its widespread acceptance and use [14]. Airbnb should prioritize improving communication, transparency, security protocols, and safety guidelines to address user concerns. This will promote trust and understanding between hosts and guests, enhance security through dependable payment methods, real-time monitoring, and 24/7 customer support, and provide comprehensive safety resources. Implementing these strategies is crucial for enhancing customer satisfaction and boosting adoption rates. They assist in mitigating the perceived susceptibility that may deter prospective customers from utilizing Airbnb.

### **3. Methodology**

This research work utilizes a mixed-method approach, integrating both quantitative and qualitative data through the use of surveys, and in depth interviews analysis. The survey gathered both closed-ended and open-ended inquiries to address the research query, so mitigating potential inaccuracies and prejudices.

#### **3.1 Data Collection**

To gain a comprehensive understanding of my research context, the survey was conducted to collect primary data on safety and security measures of peer-to-peer platforms. The survey was a questionnaire

with mostly Likert scale, and a rating scale, with options arranged hierarchically from 'strongly disagree' to 'strongly agree'. The survey was distributed to possible respondents via online networks, including popular social media platforms such as LinkedIn, Twitter and Facebook, as well as my own private networks.

The objective of the survey is to collect measurable data that characterizes the viewpoints and sentiments of a group of individuals about the notion of safety and security within the framework of Airbnb. The survey aimed to obtain a comprehensive understanding of the function and dynamics of trust and safety on peer-to-peer networks, by conducting research and establishing a strong basis.

### **3.2 Data Analysis**

During the analysis of the assembled data from the survey's closed-ended questions, frequency distribution tables (such as bar graphs) was generated for each question using Excel. Then findings were described with graphs and tables. The summary statistics used in this study include the mean and median measures of central tendency, which are more suitable for attitude 5-Point Likert Scale surveys. The mean requires that the distances on the scale are interpreted similarly among respondents. The options for safety and trust levels can be strongly disagree, disagree, neutral, agree, or strongly agree. The mean indicates a moderate level of safety, while the median indicates a high degree of safety and trust.

Thematic analysis was employed to analyze the qualitative interview data. Thematic analysis is a systematic approach used to detect, analyze, and report recurring patterns or themes present in a given set of data. The data set in question consisted of the transcripts from the eight comprehensive interviews.

The interviews yielded various themes pertaining to the perceptions of safety and security associated with Airbnb. The themes encompassed:

1. The significance of guest and host verification
2. The necessity for unambiguous and precise property descriptions
3. The significance of transparent communication between guests and hosts
4. The significance of implementing personal safety precautions
5. The significance of technology in augmenting safety and security

## 4. Results

The results obtained from both the quantitative and qualitative sections of the survey will provide insights into consumers' perceptions of the existing safety and security measures on the peer-to-peer platform Airbnb (Question no. 2). The outcomes of the quantitative survey were categorized into three distinct sections: 1. Demographics characteristics 2. The survey covered five questions about guests' view of online safety and security procedures on the Airbnb site 3. Airbnb users that experienced incidents throughout their stay.

### 4.1 Demographics

The survey received a total of 61 responses. As shown in [Table 2], the respondents were both female and male. The respondents could choose between seven age groups. Out of 60 respondents, 30 respondents are between the age of 18-24 (49.2%), 24 respondents are between the age of 25-34 (39.3%), 7 respondents are between the age of 35-44 (11.5%). And there are no respondents from 45-66 and older. The collected responses are from respondents of 17 different countries, including South Korea, America, France, Australia, Japan, Russia, Germany, Pakistan, Philippine, Italy, United Kingdom, Taiwan, Belgium, Dominican Republic, and Latvia. This demonstrates the sample's diversity and emphasizes that the findings apply to a wider range of nations, regions, continents, and cultural contexts.

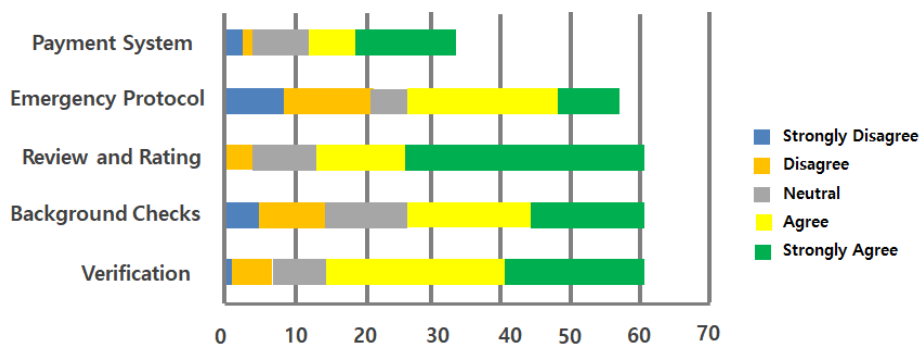
[Table 2] Demographic Classification of Respondents

Question	Classification	Number	Percentage%
Gender	Female	32	52.5
	Male	29	47.5
Age	18-24	30	49.2
	25-34	24	39.3
	35-44	7	11.5
	45-54	0	0
	55-64	0	0
	65 or older	0	0

### 4.2 Online Safety and Security Measure

As shown in [Fig. 1] a noteworthy 76.67% of participants conveyed contentment with the efficacy of

identity verification protocols, suggesting a prevailing confidence in Airbnb's efforts to authenticate the identities of both hosts and guests. Nevertheless, the results also highlight a varied mood regarding the efficacy of background checks, with 56.67% in concurrence and 28.33% expressing dissent or strong dissent. This indicates possible areas for enhancement in the background check procedures to better fit with user expectations. The review and rating system garnered significant support, with 78.33% of participants expressing strong agreement or agreement over its usefulness. However, there were issues raised about the efficacy of emergency protocols, with 56.67% expressing disagreement or strong disagreement. This indicates the necessity for a thorough evaluation and possible improvement of these safety measures. With regards to the payment system, the fact that 35% of respondents expressed positive attitude suggests that they are generally satisfied with its performance. However, the survey results highlight specific areas, such as background checks and emergency protocols, where user concerns could be addressed to further improve the overall effectiveness of safety measures on the platform.

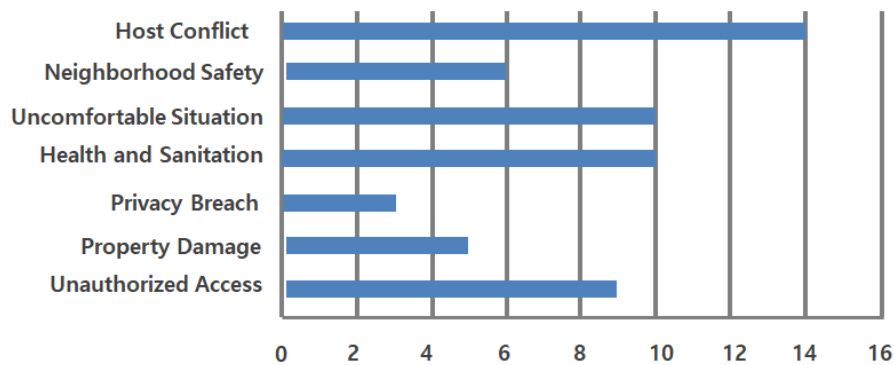


[Fig. 1] Safety and Security measure level among respondent

### 4.3 Interpersonal Safety and Security Issues

As shown in [Fig. 2] survey reveals that 14.8% of participants voiced apprehensions regarding unauthorized entry, suggesting possible vulnerabilities in the implementation of access control protocols. The occurrence of property damage, as reported by 8.2% of guest, highlights the significance of having explicit standards for responsible conduct and processes for security deposits. 4.9% of the participants experienced privacy breaches, highlighting the necessity for enhanced data protection procedures. The need of upholding excellent sanitary standards within accommodations is underscored by the health and sanitation issues highlighted by 16.4% of guests. The issue of neighborhood safety, which is a concern for 9.8% of the survey participants, highlights how external variables might influence guests' impressions.

Unpleasant circumstances, encountered by 16.4% of visitors, indicate interpersonal dynamics that could be enhanced by better host communication and conflict resolution tactics. The primary concern that arose was host conflict, with 23% of guests reporting disputes. This highlights the necessity for improved conflict resolution training and mediation services for hosts.



[Fig. 2] Result of Security Issues that respondents encountered

#### 4.4 Qualitative Survey Finding

A qualitative survey conducted in the form of in-depth interviews with a diverse group of eight persons (four females and four males from different countries) revealed a range of perspectives on their experiences with Airbnb. Two female participants expressed apprehensions over host contact and the violation of their privacy. They described the scenario as intricate and hazardous, citing instances where hosts disregarded their requirements. One of them said “I attempted to contact the host on multiple times, but he ignored to respond”. Another participant expressed her challenge with door-related problems, encountering obstacles when trying to access the lodging. A male participant encountered a troubling occurrence that took place in close proximity to his room, during which his personal items were stolen, highlighting the lack of protection in the surrounding area. Some of participants expressed the view that hosts should receive training in order to improve their professionalism. Moreover, a participant underscored the necessity for establishments that could offer aid in perilous circumstances. Notwithstanding these difficulties, several interviewees conveyed favorable opinions regarding the services provided by Airbnb, asserting that they are more reliable than other platforms. Significantly, these interviews were carried out with individuals who have utilized Airbnb in different nations, emphasizing the heterogeneous nature of their encounters.



## **5. Discussion**

The study results offer useful insights into the demographic characteristics of Airbnb users and their viewpoints on safety and security measures, as well as interpersonal concerns. Most respondents are happy with Airbnb's identification verification measures and the review and rating system. Nevertheless, there are issues over the effectiveness of background checks and emergency protocols. In order to tackle this issue, Airbnb could contemplate enhancing its background check protocols to better correspond with consumer anticipations. An investigation of the factors contributing to neutral attitudes towards the payment system could reveal precise areas that can be enhanced, hence improving overall customer happiness. A certain proportion of participants report incidents of unauthorized entry, property damage, privacy breaches, and health and sanitation difficulties, suggesting possible weaknesses in Airbnb's safety standards. Airbnb should prioritize enhancing access control protocols, defining clear guidelines for responsible behavior, and creating robust procedures for handling security deposits.

One notable finding is the occurrence of host disputes, which were reported by 23% of the visitors. This highlights the necessity for enhanced dispute resolution training and mediation services for hosts. Airbnb ought to allocate resources towards implementing thorough training programs aimed at equipping hosts with proficient communication and dispute resolution abilities.

The qualitative observations emphasized the significance of tackling security weaknesses in the surrounding regions, improving emergency procedures, and offering assistance in dangerous situations. Notwithstanding these issues, favorable comments regarding Airbnb's dependability were voiced. Incorporating these qualitative findings into the wider discourse highlights the diverse and varied nature of user experiences and underscores the imperative for Airbnb to adopt comprehensive measures, such as host training and enhanced communication, to guarantee a safe and favorable environment for users worldwide. The study highlights the necessity for enhanced host training, communication, and emergency protocols. Consistent surveillance and user input will aid in the preservation and enhancement of safety protocols as time progresses.

The results of this study carry significant implications for Airbnb and similar services that facilitate shared accommodations. First, Sustained allocation of resources towards safety measures: Airbnb should persist in allocating resources towards the development and implementation of novel safety measures, including improved host screening, proactive risk assessment, and real-time monitoring of guest interactions. Second, Enhanced communication and conflict resolution: Airbnb should optimize

communication methods between hosts and guests, develop explicit standards for resolving conflicts, and form a specialized staff to rapidly and efficiently address safety concerns. Third, Comprehensive guest education: Airbnb should establish extensive guest and host education programs to encourage responsible conduct, enhance understanding of safety regulations and emergency protocols, and offer instructions on recognizing and reporting any safety issues. Fourth, Engaging in collaboration with industry experts: Airbnb ought to actively engage in partnerships with professionals in the field, law enforcement agencies, and policymakers to facilitate the sharing of knowledge, exchange of best practices, and development of new solutions to tackle developing safety concerns. Underscoring the significance of cooperative endeavors among stakeholders, such as local authorities, community members, and pertinent governing bodies [15], it will be indispensable in guaranteeing the enduring security and conscientious application of the sharing economy.

## **6. Conclusion**

Finally, this research demonstrates the many obstacles involved in guaranteeing safety and security within the sharing economy, particularly in relation to Airbnb. Airbnb, as a trailblazer in peer-to-peer lodgings, has had a substantial impact on transforming conventional hospitality standards. The study's findings suggest that users generally have a favorable assessment of safety measures, particularly in terms of verification, payment system and the review system. Nevertheless, the subtle concerns raised, especially regarding background checks, host communication, conflict resolution, and emergency measures, highlight the necessity for ongoing enhancements in platform safety.

Based on this analysis, there are practical measures that Airbnb may take to improve its safety infrastructure. The proposed ways to strengthen the platform's dedication to user safety include consistent investment in safety measures, enhancements in communication channels, extensive guest education, and cooperation with industry experts. The findings of this study can provide valuable guidance to Airbnb and other similar platforms as they adapt to the changing sharing economy. It can help them strike a careful balance between convenience and maintaining a secure and reliable environment for their worldwide user community.

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