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# Hotel Post Covid-19: How Preparedness Affects Guest Satisfaction In A Mid-Scales Hotel

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**Abstract**
*Post-pandemic health strategies will be critical to hotel success. Guests' expectations regarding sanitation, cleanliness, safety, and health continue to rise. As a mitigation plan, hotel preparedness is essential to ensure guest satisfaction. Still, few studies examine the relationship between preparedness and guest satisfaction during the COVID-19 pandemic. This study aims to determine the effect of preparedness on guest satisfaction and assess the preparedness's importance and performance on guest satisfaction in Bandung. The mid-scale hotel category was chosen as the unit of study since it contains the majority of hotels in Bandung. This quantitative cross-sectional study was undertaken. The data was gathered using a questionnaire survey of respondents who had stayed in the mid-scale hotel in Bandung during the pandemic. The data was analyzed using Structural Equation Modeling (SEM) PLS and Importance-Performance Map Analysis (IPMA). According to the research findings, hotel preparedness has a synergic effect on guest satisfaction. Preparedness is a process, not a product, and each practice cannot be attained separately but must be integrated to ensure guest satisfaction. This research contributes that implementing crisis management through preparedness has an essential role in guest satisfaction; practically, hotels are expected to focus on cleanliness quality and strengthen human resources by enhancing employee competencies since they have the highest level of importance in reducing the risk of COVID-19.*

*Keywords— COVID-19, Guest Satisfaction, Mid-Scale Hotel, Preparedness*

**Abstrak**
*Pasca pandemi strategi kesehatan menjadi hal krusial bagi kesuksesan industri perhotelan. Harapan tamu akan hygienitas, kebersihan, keamanan dan kesehatan semakin tinggi. Implementasi kesiapsiagaan hotel sebagai tindakan mitigasi menjadi hal yang penting mempengaruhi kepuasan tamu. Studi terkait hubungan kesiapsigaan dengan kepuasan tamu dalam konteks bencana pandemi Covid-19 masih sangat minim. Penelitian ini bertujuan menganalisa pengaruh kesiapsiagaan terhadap kepuasan tamu dan menganalisa tingkat kepentingan dan kinerja kontruk kesiapsiagaan terhadap kepuasan tamu di Kota Bandung. Mid-scales hotel dipilih sebagai unit analisis karena klasifikasi ini merupakan jumlah hotel terbanyak di Kota Bandung. Penelitian ini dilakukan secara kuantitatif cross-sectional. Pengumpulan Data dilakukan melalui survey kuesioner kepada responden yang pernah menginap pada hotel di Kota Bandung pasca pandemi. Data terkumpul dianalisis menggunakan SEM PLS dan Importance-Performance Map Analysis (IPMA) untuk mengetahui kinerja dan kepentingan kesiapsiagaan terhadap konstruk kepuasan tamu. Temuan penelitian menghasilkan bahwa kesiapsiagaan berpengaruh positif dan signifikan terhadap kepauasan tamu. Kesiapsiagaan merupakan suatu proses bukanlah produk dimana setiap dimensinya saling berkaitan dan harus dilakukan secara bersama guna mendukung kepuasan tamu. Penelitian ini memberikan kontribusi bahwa kesiapsiagaan merupakan bagian dari manajemen krisis yang memiliki peranan pernting terhadap kepuasan tamu, secara praktis, hotel diharapkan berfokus pada kualitas kebersihan dan meningkatkan sumber daya manusia melalui keterampilan karyawan karena memiliki tingkat kepentingan tertinggi dalam mengurangi resiko Pandemi Covid-19.*

Kata kunci—Covid-19, Mid-Scales Hotel, Kesiapsiagaan, Kepuasan Tamu

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## I. INTRODUCTION

The extended COVID-19 outbreak has wreaked devastation on the hospitality business. Although Indonesia has entered a phase of economic recovery following the pandemic, this does not mean the outbreak has ended. Indeed, new Coronavirus Disease (Covid)-19 variants continue to arise. The pandemic's impact on the hotel business in Bandung is extensive, ranging from decreased room occupancy rates to revenue loss, personnel reduction, and termination of employment. Stakeholders have launched numerous initiatives in the tourism sector to recover from the crisis. One established method of recovering from this situation is maintaining ongoing preparedness as a preventative measure for health, safety, and comfort to maximize guest satisfaction.

The hotel industry plays a significant role in tourism. It supports tourism activities when tourists need places to stay and contributes to the income of the tourism industry in Bandung. According to data from the Central Statistics Agency, the number of star hotels in Bandung as of 2020 was 166, ranging from 1 to 5-star classifications. This data is supported by statistics from the Bandung City Revenue Service (DISPENDA), which reveals that mid-scale hotel types contribute the most to hotel sector taxes in Bandung. The epidemic has disturbed Bandung City's tax income objective, and the Bandung City government has changed the tourism industry tax aim more than twice throughout 2020.

Numerous disasters associated with environmental changes demonstrate that the tourism and hotel industries need to prepare to deal with the impending problem (AlBattat & Mat Som, 2014). This lack of preparedness exposes hotels to various risks, including resource scarcity, business interruption, and failure. Zech (2016) and Gruman et al. (2011) underline further that the low level of preparedness among hotels increasingly leaves hotels surprised by crises. Several past studies show that only a small percentage of hotels have disaster planning in practice and manage preparedness measures by establishing procedures and frameworks. According to prior research, only a few hotels have disaster planning and manage preparedness measures by establishing protocols and frameworks. While disasters cannot be avoided, their impact and consequences can be lessened by a proactive approach to disaster preparedness.

The hotel industry's primary challenge amid the COVID-19 disaster is enhancing health strategies. Hotel management employs various strategies to ensure guests' comfort and keep them healthy against hazards during their stay. To assist the hotel business in extending, the government has implemented the CHSE (Cleanliness, Healthy, Safety, and Environment) initiative under the Ministry of Tourism and Creative Economy. This approach serves as a model for preparedness to operate hotels efficiently while applying health precautions to mitigate the possibility of COVID-19. The hotel's ability to maintain a high standard of cleanliness, health, and safety and protect the environment is critical to the hotel's sustainability. It cannot be separated from employee skills and strong coordination to ensure guest satisfaction to accomplish this situation. However, no research currently examines the adoption of the preparedness role on guest satisfaction in depth.

As a service industry, hotels are inextricably linked to customer satisfaction. To succeed during the 'New Normal,' a hotel must maintain a high standard of products and services that align with the activities we want guests to participate. Following COVID-19, it is necessary to consider cleanliness, health, safety, and the environment (Kemenparekraf, 2020). Hotel management must maintain a level of preparedness for health protocols to establish adaptation methods in response to changing Covid-19 pandemic conditions. The term refers to a broad range of interconnected issues, from planning to uniformity in preparedness implementation (WHO, 2020).

Badri & Kazemi (2020) found that hotel classification or rating plays a role in hotels' preparedness levels during disasters. Meanwhile, the study's findings (Hussain & Kareem, 2020) shed light on guests' expectations when selecting hotels during the pandemic, particularly those that place a premium on preparedness. Numerous tourism studies have addressed issues concerning COVID-19. Researchers have examined the impact of COVID on the tourism industry, concluding that it has caused significant changes (Gössling, Scott, & Hall, 2020). While the study on hotel satisfaction during COVID-19 was reviewed by (Hong et al., 2020), the study's findings indicated that there was a level of change in hotel guest satisfaction, particularly in Bed & Breakfast (B&B) type hotels, between pre-and post-Covid-19 conditions, which has implications for the hotel's marketing strategy. The study (Ervina et al., 2021) explains that preparedness contributes to guest satisfaction but does not examine the relationship between the two variables.

According to earlier studies, various factors influence guest satisfaction before and after the COVID-19 pandemic. Yu Song et al. (2022) argued that guest satisfaction increases during COVID-19. Before the pandemic, guest satisfaction was determined by cleanliness, room characteristics, location, value, and sentiment; post-COVID-19, guest satisfaction is measured by service. Yang and Lau (2016) highlighted the same fact that service quality has a significant impact on guest satisfaction. Those results contrast with Hong's (2020), which analyzes tourist satisfaction at B&B hotels. The study's findings indicate that tourist satisfaction is influenced by room

cleanliness, health-related amenities such as first aid facilities, a green environment, employee knowledge and skills, and health factors during the outbreak. Indeed, the hotel's quality service is closely related to preparedness as a risk management strategy during a health crisis. FEMA (2003) and Sutton & Tierney (2007) explain that preparedness is a process, not a product. An effective response is contingent upon a prior understanding of the skills and competencies of all entities assigned to undertake functions during a disaster. The study aims to analyze the effect of preparedness elements on guest satisfaction in COVID-19 circumstances. Additionally, to evaluate the importance and performance of preparedness on guest satisfaction.

## II. LITERATURE REWIEW

### *A. Mid Scales Hotel*

According to Ninemier and Purdue (2005), full-service hotel categories are segmented into three levels: middle-scale hotels, upper-scale hotels, and luxury hotels. Mid-scale hotels are defined as lodging establishments that provide meals, lounges, swimming pools, meeting and banquet packages, and other amenities (Ninemeir & Perdue, 2005). According to a recent survey, rooms in up-scale hotel classes, such as 4-star and 5-star hotels, are considered safer and better-maintained than rooms in other types of hotels. In a luxury hotel, all the facilities are more complex and are supported by a high standard of service quality. The service quality dimension will play a more significant role in determining how guests evaluate the quality of service provided by the hotel in comparison to middle-class (mid-scale hotels), where generally, products and services cannot be carried out consistently and reliably in order to meet the guests' wishes (Rauch, Collins, Nale, & Barr, 2015). As a result, mid-scale hotels' levels of service quality must be evaluated.

### *B. Hotel Preparedness*

In crisis circumstances, preparedness is part of the disaster phase. According to Nguyen (2015), disaster management consists of four steps, i.e., mitigation, preparedness, response, and recovery. However, today, preparedness has become a primary concern for each stage of disaster management. Preparedness has emerged as an important phase in risk management actions that can be implemented at any stage of a disaster (Badri & Kazemi, 2020). Some studies even describe planning as an activity to improve preparedness, such as warning systems, critical resources, knowledge, and detecting risks and difficulties, which generally limit or avoid disaster risks (Raikes et al., 2019).

Preparedness is a process that can occur at any level of analysis, including households, the public sector, communities, networks, and even businesses. The National Fire Protection Association (NFPA) defines preparedness as "activities, programs, and systems developed and implemented in response to a disaster or emergency condition to assist and improve disaster mitigation, response, and recovery." According to another theory of management, preparedness is a notion that comprises steps aimed at boosting life safety in the case of a disaster, such as protective measures in the event of a natural disaster, hazardous material spill, or terrorist attack. Additionally, it includes actions to bolster the capacity to respond to emergencies, protect life and property, contain disaster damage and disruption, and engage in post- and early-disaster recovery efforts. (Sutton & Tierney, 2006).

The concept of preparedness has multiple dimensions and can be tailored to meet the needs of a particular crisis or disaster. Collaboration is required to implement preparedness, and this collaboration does not only take the form of top-down directives. Hotels must be prepared for disasters because business is a significant driver of the economies of their respective communities, regions, and countries and because many businesses are directly involved in crisis-related activities during natural disasters.

The COVID-19 pandemic, due to a non-natural disaster, has affected the tourism and hospitality sectors. All stakeholders have tried to recover this industry, which has been classified as one of the worst-affected industries. Diverse governmental and non-governmental organizations (NGOs) have issued guidelines and directives on the preparedness of the accommodation and hospitality sector, such as Global guidelines for managing COVID-19 (World Health Organization, 2020) have been issued, and the World Travel & Tourism Council guided the "Leading Global Protocol for the New Normal" (World Travel & Tourism Council, 2020; WTTC, 2020). While this was going on, the Indonesian government, through the Ministry of Tourism and Creative Economy (Kemenparekraf, 2020), issued guidelines for health protocols thru guidelines for implementing cleanliness, health, safety, and environmental sustainability in hotels, also known as Cleanliness, Health, Safety, and Environment (CHSE) guidelines in hotels (CHSE). This guide is intended to serve as a reference for hotels in terms of implementing procedures that must be followed to maintain consistency throughout the hotel. It was Sutton and Tierney who came up with the idea. There are eight dimensions to consider regarding disaster

preparedness in the hotel industry. These include 1) knowledge of hazards; 2) management, direction, and coordination; 3) formal and informal emergency response plans and consensus; 4) resource and capital support; 5) protection of lives and property; 6) restoration of critical functions; and (8) the beginning of recovery activities—understanding of Potential Risks (Hazard Knowledge).

According to the World Travel and Tourism Council, there are four protocol pillars that hotels must prepare for, including 1) staff and operational preparedness; 2) ensuring a safe experience (Ensuring a safe experience); and 4) ensuring the implementation of policies (Ensuring the implementation of policies) (implementing enabling policies). Coughing and sneezing etiquette (respiratory hygiene) and masks are all recommended by the World Health Organization (WHO). Hand hygiene, maintaining physical distance, avoiding touching eyes, nose, and mouth, and using masks are all recommended by the World Health Organization (WHO) for hotels. Similar requirements are outlined in a CHSE guide published by the Indonesian government thru the Ministry of Tourism and Creative Economy. In addition to implementing hotel health protocols, it is expected to update standard operating procedures, conduct training sessions periodically, and collaborate with the health service and other relevant stakeholders.

*C. Guest Satisfaction*

Guest Satisfaction is a critical component of the tourism business (Kozak et al., 2004); due to the direct impact of services on people (Forte et al., 2018), the expert concluded that services are associated with consumer satisfaction (Nuntsu et al., 2004). Satisfaction has been defined in several different ways in the literature. Examining satisfaction is critical for tourism market strategy (Hau & Omar, 2014). In the tourism industry, such as hotels, enhancing guest satisfaction is a critical strategy that leads to the success of companies (Hyun et al., 2017; Hyun et al., 2011). Research done by Deng et al. (2013) argued that satisfaction was strongly associated with tourist complaints and service quality. Kim & Kim (2006) discovered that the primary elements affecting tourist satisfaction were convenience, safety, and technological preference.

*D. Hypothesis Development*

Following the COVID-19 mega-health crisis, multiple studies revealed increased customer satisfaction. According to Yu Song et al. (2022), the most critical factors contributing to hotel guest satisfaction before the pandemic were service, room cleanliness, location, value, and sentiment; however, during the outbreak, service quality was the most critical element. This aligns with Nuntsu et al.'s (2004) idea that service is inextricably linked to tourist satisfaction. The pandemic has altered guest expectations, with the most critical element being the hotel's capacity to maintain a high degree of cleanliness, hygiene, and safety (Lau, 2020). A similar conclusion was reached by Jiang & Wen (2020), who cited hygiene, cleanliness, and health-related issues. Additionally, Jiang & Wen (2020) proposed that studies explore the causes and effects of hygiene and health and how these aspects can affect guest perception and satisfaction.

Study by Hong (2020) examines tourist satisfaction at B&B hotels. The study's findings indicate that during COVID-19, tourist satisfaction is influenced by room cleanliness, health-related amenities such as first aid facilities, a green environment, employee knowledge and skills, and health factors. The hotel's ability to maintain service quality to reduce the risk of COVID-19 can be seen through the hotel's preparedness. Sutton and Tierney (2007) defined preparedness as "actions to increase life safety in the event of a disaster." On the other hand, FEMA (2003) defines preparedness as a collection of aspects, including hazard awareness, coordination, hazard mitigation, operations, procedures, communications, facilities, and logistics during a crisis. Research conducted by Ervina et al. (2021) shows that guest satisfaction concerning hotel preparedness is exceptionally high. The preparedness of each hotel section was examined, but the effect of the preparedness variable on overall guest satisfaction was not examined in detail. As a result, it is reasonable to assume that hotel preparedness impacts guest satisfaction.

Based on the findings of prior studies and a review of the literature, it can be assumed that hotel service quality can be seen through hotel preparedness during the COVID-19 which focuses on health, safety, hygiene, employee skills, hazard knowledge, environment, and coordination, and thus that the more preparedness implemented by the hotel, the higher the guest satisfaction. This study aims to analyze the direct relationship of preparedness using second-order model analysis in SEM. Furthermore, this article investigates the most critical preparedness practices and activities for increasing guest satisfaction by analyzing the importance-performance map. To clarify the issue research hypotheses are stated as follows:

**H**: Preparedness have positive dan significant effect on guest satisfaction

**Q**: What is the level of importance and preparedness performance toward guest satisfaction?

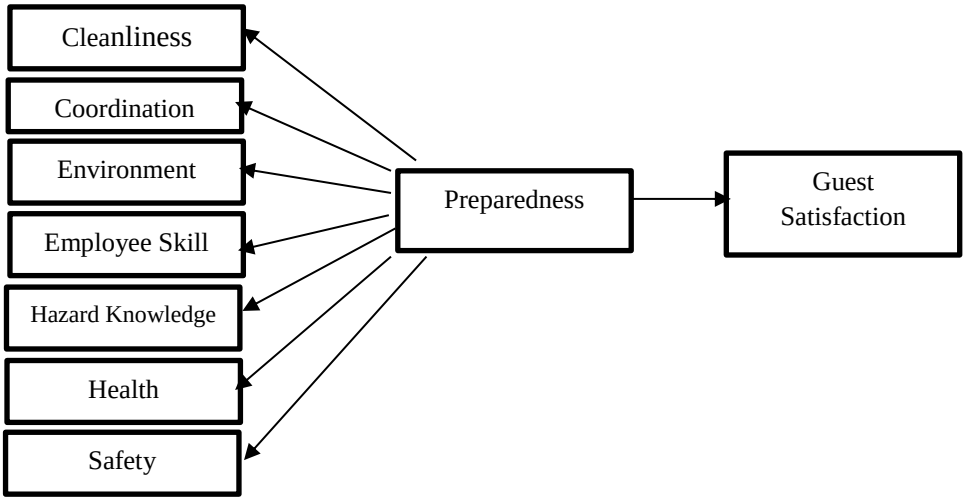


**Figure 1.** Research Model (Source: Sutton & Tierney (2007); FEMA (2003); Ervina et al., (2021); Hong et al., (2021); Yu Song et al., (2022)

## III. RESEARCH METHODOLOGY

This research used a cross-sectional study with a mid-scale hotel as a unit analysis. A structured questionnaire was utilized to assess the variables in this study. The measurement was created based on some literature, theory, and policy applied by the government. The Preparedness variable was measured with an instrument developed by Sutton & Tierney (2006) and FEMA (2003), the Cleanliness, Health, Safety, and Environmental Sustainability (CHSE) Guidelines by the Ministry of Tourism, Creative Economy of the Republic of Indonesia (2020), WHO, 2020 and WTTC 2020. The satisfaction variables were measured utilizing the instrument developed by Parasuraman, Zeithmal (1988); Syaqirah, Z.N; Faizurrahman, Z.P (2014); Hong et al. (2020) and Yu Song et al. (2022). The study variables were assessed perceptually using the five-point Likert (1-5).

Mid-scale hotels were selected as the study population because those classifications dominated the significant hotel quantities in Bandung. This research was conducted in September 2021. Based on the G*Power test, with a medium power test, the sampling minimum is 85. A total of 114 responses were returned. This research aims to explore the direct path from preparedness to guest satisfaction in a structural equation model using second-order analysis (SEM). PLS-SEM was selected because the research model, Given the hypothesized relationships and the levels of complexity, including first-order and second-order constructs (Ali et al., 2018), the study model is complicated. Since the hotel preparedness variable is multidimensional, a two-step method was utilized to estimate the model, which comprises a construction method employing a latent variable score. The accumulated scores of the first-order components were estimated in the first step. The aggregate score was also used to model second-order constructs (Wright et al., 2012).

Following that, utilizing Importance-performance map analysis (IPMA), this article investigates the most critical preparedness practices and activities to increase guest satisfaction. IPMA evaluates the degree of latent performance and manifest variables in the PLS-SEM analysis. Hence, in addition to the importance of latent and manifest variables (i.e., path coefficients), using IPMA brings insight into the importance of variables to the target construct.

## IV. RESULT/FINDING

*Validity & Reliability*

Outer Model (measurement model)

This study used Hair, Hult, Ringle, and Sarstedt's (2017) procedure to assess the construct validity. This research is confirmatory to confirm and test the association between hotel preparedness and guest satisfaction; hence, a consistent Partial Least Square (PLS) technique is used. Construct validity assures that a collection of measurable variables accurately represents the assessed construct (Hair et al., 2017). Convergent validity, composite reliability (CR), and discriminant validity have been tools as an indicator of construct validity. A two-stage approach is employed to model the structures, which needs an initial estimate to get the latent variable score of the second-order construction. As a result of this assessment, the reflective measurement models in the model were evaluated. Table 1. Shown the validity of the first-order construct measurement.

**Table 1.** First Order Measurement

| Indicator | Outer Loading | CR | AVE |
|---|---|---|---|
| CL1 | 0.941 | | |
| CL2 | 0.941 | | |
| CO1 | 0.904 | | |
| CO2 | 0.896 | | |
| EN1 | 0.849 | | |
| EN2 | 0.869 | | |
| ES1 | 0.942 | | |
| ES2 | 0.937 | | |
| GS1 | 0.922 | | |
| GS2 | 0.897 | | |
| GS3 | 0.928 | | |
| GS4 | 0.884 | | |
| GS5 | 0.862 | | |
| HK1 | 0.895 | | |
| HK2 | 0.919 | | |
| HL1 | 0,932 | | |
| HL2 | 0,921 | | |
| SA1 | 0.915 | | |
| SA2 | 0.910 | | |

All loadings factors were more than 0.708, as Hair et al. (2019) suggested, ensuring the items' reliability. Furthermore, the composite reliability (CR) index and the recently proposed Rho-A measure were above threshold 0,7. The convergent validity of the constructs was assessed using the Average Variance Extracted (AVE) measure, which was greater than 0.5 (Hair et al., 2017). Besides first order construct, A second-order measurement was used to assess the validity of the preparedness indicator (Table 2)

**Table.2** Second Order Measurement - Convergent Validity

| Item | Factor Loading | R-Square | Error Variance | AVE | CR |
|---|---|---|---|---|---|
| Cleanliness (CL) | 0,847 | 0,717 | 0,283 | | |
| Healthy (HL) | 0,849 | 0,721 | 0,279 | | |
| Safety (SA) | 0,875 | 0,766 | 0,234 | | |
| Employee Skill (ES) | 0,902 | 0,814 | 0,186 | | |
| Hazard Knowledge (HK) | 0,809 | 0,654 | 0,346 | | |
| Environment (EN) | 0,907 | 0,823 | 0,177 | | |
| Coordination (CO) | 0,902 | 0,814 | 0,186 | | |

Discriminant validity was evaluated using a precise execution of the Fornell and Larcker criteria (Henseler et al., 2015) in order to confirm that a construct is unique from others (Hair et al., 2017) in which the square root

of the AVE must be greater than the highest correlation with the other components. The Fornell and Larcker criterion reveals sufficient discriminant validity (Table.3).

**Table 3.** Discriminant Validity Fornell & Larcker Criterion

| | CL | CO | ES | EN | GS | HK | HL | SA |
|---|---|---|---|---|---|---|---|---|
| CL | 0.941 | | | | | | | |
| CO | 0.745 | 0.900 | | | | | | |
| ES | 0.745 | 0.761 | 0.939 | | | | | |
| EN | 0.717 | 0.805 | 0.839 | 0.859 | | | | |
| GS | 0.775 | 0.808 | 0.770 | 0.843 | 0.899 | | | |
| HK | 0.560 | 0.698 | 0.745 | 0.712 | 0.738 | 0.907 | | |
| HL | 0.680 | 0.783 | 0.742 | 0.749 | 0.715 | 0.606 | 0.927 | |
| SA | 0.735 | 0.791 | 0.826 | 0.727 | 0.719 | 0.685 | 0.791 | 0.912 |

*Hypothesis Testing*

By and large, this study hypothesizes that every preparedness practice improves guest satisfaction. In other words, increased adoption of each preparedness practice results in increased guest satisfaction. Correlation analysis indicates that each preparedness practice positively correlates with guest satisfaction. Considering the relationship between independent variables, there are four correlation coefficients greater than 0.70. In multiple regression analysis, a high correlation between independent variables is the first indication of significant multicollinearity, followed by other indicators (Hair, Black, Babin & Anderson, 2014).

**Table 4.** Hypothesis Testing – First-Order Construct

| Path Analysis | Original Sample | St-Dev | T- Statistics | P -Values |
|---|---|---|---|---|
| CL -> GS | 0.302 | 0.091 | 3.321 | 0.001 |
| CO -> GS | 0.157 | 0.130 | 1.209 | 0.227 |
| EN -> GS | 0.393 | 0.100 | 3.924 | 0.000 |
| ES -> GS | -0.070 | 0.120 | 0.582 | 0.561 |
| HK -> GS | 0.244 | 0.098 | 2.484 | 0.013 |
| HL -> GS | 0.059 | 0.090 | 0.651 | 0.515 |
| SA -> GS | -0.067 | 0.110 | 0.608 | 0.543 |

Source: The owner is Finding

The hypothesis is tested using multiple regression analysis with the PLS bootstrap, consistent with SmartPLS 3's implementation. As demonstrated in Table 4, only three correlations exhibit statistically meaningful t-values at 0.05 ($t > 1.96$) and a non-zero confidence interval. Thus, only three preparedness practices, Cleanliness (CL), Environment (EN), and Hazard Knowledge (HK), have been shown to have a significant positive impact on guest satisfaction (GS). As shown in the table, the standard beta coefficients of the two relationships (i.e., the relationship between environment and guest satisfaction and the relationship between security and guest satisfaction) statistically significant have a negative sign. However, simple logic, theory, and the correlation coefficient all indicate a positive sign. When used in conjunction with multiple regression analysis, this sign of contradiction can also indicate the presence of multicollinearity (Hair et al., 2014).

Testing for tolerance and variance inflation factor (VIF) was performed in order to establish the presence of multicollinearity. To show substantial multicollinearity, tolerance values of less than 0.40 and VIFs of more significant than 2.50 are sufficient, according to Hair et al. (2014). Based on the assessment, all variables indicated a high degree of multicollinearity (CL= 2,875; CO= 4,521; EN= 4,634; ES= 5,610; HK=2,567; H=3,438; SA= 4,709) because other independent variables contribute for more than 75% of the variation of the variables. According to Hair et al. (2014), Multicollinearity results in shared variation across the independent variables. This may impair one's ability to forecast a dependent variable and determine the influence of the independent variables.

Constructing a high-order model is a technique for overcoming multicollinearity (Hair et al., 2017). To develop a high-level construction model, theory and literature must be consulted. Instead of attributing the seven activities to guest satisfaction, The newly developed model illustrates the relationship between preparedness (a second-order construct) and guest satisfaction (Figure 1). Consequently, a positive relationship between preparedness and guest satisfaction was hypothesized (Table 5). The hypothesis was tested using consistent PLS bootstrapping. A 95 percent bias-corrected bootstrap confidence interval for hypothesis testing was computed using a bootstrap technique utilizing 500 bootstrap samples (Preacher & Kelley, 2011). Overall, the preparedness appears positive and significant to guest satisfaction. The result is above the threshold (t-values > 1.96; P-values = 0.00, at 80.8 percent in guest satisfaction (b = 0.93,3/t-values = 45.5214).

**Table 5.** Hypothesis Testing – Second-Order Construct

| Path | Standard Beta | Std-Dev | T-Statistics | *p*-Values | R2 | Decision |
|---|---|---|---|---|---|---|
| Preparedness -> Guest Satisfaction | 0.933 | 0.021 | 45.214 | 0.000 | 0.808 | Supported |

**Note:** Two-tailed test

This implies that implementing preparedness practices concurrently may significantly impact guest satisfaction instead of implementing preparedness in discrete practices.

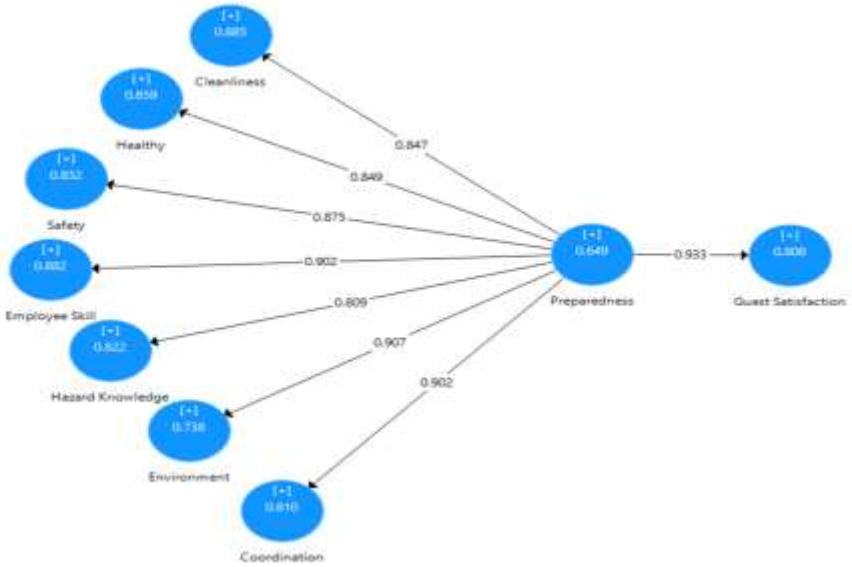


**Figure 2.** PLS Path Model

A second-order preparedness practice model is constructed, supported by preparedness theory, government policy, and empirical investigations. The path model hypotheses tested in this work are depicted in Figure 1. Preparedness, as a second-order construct, is comprised of seven interconnected practices.

All first-order construct indicators are allocated as second-order construct indicators using a repeat indicator technique (Hair et al., 2017). Convergent validity analysis and the CR of the second-order construct demonstrate that all external loadings of the first-order construct are within acceptable limits, ranging from 0.738 to 0.885. Similarly, the AVE and CR are 0.758 and 0.956, respectively. As a result, the second-order model's construct validity is sufficient.

Furthermore, using a blindfolding technique, the predictive relevance (Q2) demonstrates the models' capacity to predict the evaluated endogenous variables. These outcomes are derived using the score variable, which calculates the cross-validation redundancy. Q2 has a notable significance for the productivity of 0.698, which is larger than 0. This might imply that the model is predictively relevant.

***Importance-Performance Map Analysis (IPMA)***

IPMA is concerned with enhancing the quality of research finding (Ringle & Sarstedt, 2016). According to Ringle and Sarstedt, IPMA assesses the degree to which latent performance and manifest components are present in a PLS-SEM (2016). Path coefficients were previously used to draw conclusions, which IPMA extends. Implementing IPMA can give valuable insight into the contribution of a variable to a target construct or constructs in general. It is possible to prioritize the factors used to raise the target variable using IPMA. Furthermore, it can analyze at the indicator level, supporting researchers in finding the most critical activities to improve the construct's goal variables. Overall, IPMA impacts an organization's strategic decision for management action.

Table 6. shows that the overall preparedness construct has almost the same importance. However, cleanliness (CL) shows a lower level of importance than the other variables forming guest satisfaction, while the environmental (EN), employee skills (ES), and coordination (CO) have the highest importance. Hazard knowledge (HK) and environment (EN) are the variables with the highest performance. This is in line with the high importance of the loading factor for the first-order construct compared to the second-order construct for guest satisfaction.

Generally, all the constructs of preparedness are nearly equal in importance, although Healthy (HL) is rated lower than the other variables contributing to guest satisfaction. The dimensions of the environment (EN), employee skills (ES), and coordination (CO) are rated as the most important in terms of overall importance in the table. The dimensions of hazard knowledge and the environment are the parameters that perform the best overall. Accordingly, the loading factor is significantly more critical for the first-order construct than the second-order construct of guest satisfaction.

**Table 6.** Latent Variable Index Values and Performance of the Target Contruct Guest Satisfaction (GS)

| Construct | CL | CO | ES | EN | HK | HL | SA | Average |
|---|---|---|---|---|---|---|---|---|
| LV Performances Values | 83.761 | 83.016 | 84.003 | 84.608 | 85.609 | 80.454 | 82.425 | 83.411 |
| LV Importance Values | 0,847 | 0,902 | 0,902 | 0,907 | 0,809 | 0,849 | 0,875 | 0,870 |

Source: Authors' Finding

On the indicator level, the analysis results are presented in Table 7. The IPMA analysis reveals that several indicators have high importance but low performance, such as in CL2 (importance = 0.05, performance = 82,965), which has high importance but low performance. However, there are indicators with the lowest achievement standards, such as HL2 (importance = 0.036; performance = 76.106), which has the lowest level of performance. According to the findings from the analysis of the importance and performance of preparedness indicators, the two variables are related. The importance value ranges between 0.036 and 0.054, while the performance value ranges between 76,106 and 87,369.

**Table 7.** Indicator Index Importance & Performance of Preparedness to Targeted Construct Guest satisfaction

| | **CL1** | **CL2** | **CO1** | **CO2** | **EN1** | **EN2** | **ES1** | **ES2** | **HK1** | **HK2** | **HL1** | **HL2** | **SA1** | **SA2** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Importance Values** | 0,054 | 0,05 | 0,053 | 0,049 | 0,05 | 0,045 | 0,054 | 0,047 | 0,046 | 0,052 | 0,048 | 0,036 | 0,048 | 0,044 |
| **MV Performances** | 84.513 | 82.965 | 84.292 | 81.637 | 87.389 | 81.416 | 84.513 | 83.407 | 85.841 | 85.398 | 83.628 | 76.106 | 82.743 | 82.080 |

Source: Author's finding

## V. DISCUSSION

The study's findings revealed that guest satisfaction at mid-scales in Bandung is significantly influenced by a hotel's ability to manage crises through preparedness during COVID-19. The implementation of preparedness is a part of hotel service quality in order to improve life safety and reduce risk. As a critical element to guest satisfaction, preparedness is measured by cleanliness, coordination, environmental factors, employee skills, hazard knowledge, health, and safety.

All preparedness practices are mutually supportive in their implementation, with one practice typically being aided by applying another. This finding indicates that in order to ensure guest satisfaction during a health crisis,

the preparedness dimension must be utilized. Preparedness is a necessary action that must be carried out holistically. In other words, adopting one practice may be contingent upon the application of others. This implies that adopting practices independently pushes businesses toward failure to implement preparedness. This could be one of the reasons that preparedness initiatives succeed in one hotel but fail in another.

Even though this pandemic will eventually end, the hospitality industry will never be able to return to the old normal. Pandemics have a long-lasting effect on society (Gossling et al., 2020). Customers have significantly higher expectations for hygiene and cleanliness and have a much higher appreciation for contactless service (Lau, 2020). Traditionally, many mid-scale hotels have strongly emphasized providing one-on-one service to their guests at each stay stage. However, following COVID-19, these processes and strategies may need to be revised.

The Importance Performance-Map Analysis (IPMA) supports the findings of the path analysis, which indicates that cleanliness and employee skill are the dimensions that have the most significant impact on shaping guest satisfaction in Bandung following the COVID-19 outbreak. Although the values between all dimensions are nearly equal in importance, health and safety have lower performance in terms of coordination when compared to the other forming dimension. Of course, this needs to be the primary focus of hotel management to improve the performance of the three dimensions mentioned earlier. At the indicator level, the analysis results show that the hotel's ability to maintain clean and tidy public areas and the employees' skills in providing services to reduce the risk of COVID-19 are critical to the guest.

Most mid-scale hotels in Bandung have obtained a Cleanliness, Hygiene, Safety, and Environment (CHSE) certificate. However, several indicators of hotel preparedness, such as the condition of hotel toilets, health-recommendation services, hotel environmental awareness, and consistency in monitoring the application, all show poor performance in comparison, but the difference is still relatively small. In addition to these factors, some indicators, such as isolation rooms and medical facilities, are considered unimportant but have mediocre performance. This should concern management, who would instead concentrate on indicators of preparedness that are considered essential but have poor performance, such as medical facilities.

The findings of this study emphasize the critical role of human resources, especially employee skills, as a preparedness element to mitigate the risk post mega health crisis. Sutton and Tierney (2008) suggest that these roles are reflected in employee coordination abilities and skills. However, human capital can also be applied to tasks, human resource development programs, evaluation procedures, and other programs. More substantially, the summary analysis in Table 8 demonstrates that the importance of constructing preparedness indicators is very similar, with an essential range of 0.036 to 0.054. Furthermore, the high loading factor observed in this study indicated a strong correlation between the indicators in the construct. This implies that all indicators are equal and mutually beneficial in increasing guest satisfaction. This may help to support complementarity between indicators when developing constructs.

The study result supports Yu Song et al. (2022) finding that after COVID-19, guest satisfaction becomes higher, with the primary factor being service. Yang and Lau (2016) concur that service quality is essential to customer satisfaction. Based on the study, the level of service a hotel delivers is determined by the quality of its human resources. Furthermore, it reflected the management program through its preparedness to make guests feel comfortable and satisfied. Many studies have discussed the relationship between service quality and guest satisfaction, but no one has related how crisis management through preparedness can affect guest satisfaction. This study emphasized the role of preparedness, especially cleanliness dan human resources, through employee skills in the hotel business.

Hotel preparedness, as an inherent component of the business, is a dynamic plan that could be divided into a series of measures at each phase of a disaster to reduce risk, improve response to calamities, and accelerate recovery (Badri & Kazemi, 2020). While Bandung is now in the post-pandemic phase, preparedness activities such as preventive measures must continue to be consistently implemented. According to the literature, the idea of preparedness can be divided into two categories: mitigation and response activities; instead, it serves as the foundation for comprehensive planning and action. The ability of a hotel to provide secure and safe accommodations is critical when evaluating the establishment's products and services.

## VI. Conclusion and Recommendation

This study examines the effect of preparedness on guest satisfaction. Subsequently, analyze the level of importance and performance of preparedness to guest satisfaction at a mid-hotel in Bandung City following the COVID-19 pandemic. The study results show that preparedness positively and significantly affects guest

satisfaction. This is reinforced by the fact that R2 is 0.808. As a result, 80.8 percent of guests' satisfaction can be attributed to preparedness. The preparedness application demonstrates how a hotel manages the COVID-19 health crisis and reflects the quality of hotel services. The size of the business is essential in determining disaster preparedness and the ability to ensure that products and services are appropriately delivered. According to the study, preparedness cannot be implemented in pieces but must be integrated. Preparedness is shown through actions that show cleanliness, health, safety, employee skills, knowledge of hazards and the environment, and coordination, all of which satisfy guests more.

The findings indicate that cleanliness and employee skills play an essential role. However, with low performance in shaping guest satisfaction, the hotel manager should focus on service and invest in human resources to improve capabilities to deliver products and services post-health crisis. Even though the city of Bandung is starting to enter an epidemic era, it does not mean the spread of COVID-19 has disappeared, but the rise and fall in the number of cases make the crisis challenging to predict. Knowing the level of guest satisfaction will help hotel management and the academy develop mitigation strategies for health crises.

*Implications*

The finding provides theoretical implications for crisis management through the application of preparedness that contributes to guest satisfaction during a health crisis. This study confirms that the hotel can satisfy the guest even in the unpredictable COVID-19 crisis by implementing a preparedness element. Even though the hotel sector has changed after the outbreak, service remains the industry's core value. Practically, this research suggests a business strategy for hotels to strengthen the quality of human resources through skills development and improve the quality of hotel cleanliness and sanitation to ensure the hotel's guests are safe and comfortable with well-maintained cleanliness.

*Limitations*

It is important to note that this study has some limitations, including the fact that it measures guest satisfaction based on the implementation of preparedness in the context of health crisis management rather than other satisfaction factors such as the quality of room products, food and beverage products, or services provided during the hotel's guest cycle. Furthermore, the number of respondents in this study was small when compared to the total number of respondents, and the majority of those who participated stayed for one night during the pandemic, which could have influenced their experience, knowledge, personal perceptions, and unreasonable expectations, as well as their circumstances, which were not appropriate. After the pandemic, more research is expected to be done to see how preparedness affects guest loyalty.

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