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Factors Affecting Hotel Recommendation: Before the COVID-19 Pandemic and After the Reopening

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Abstract

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During the COVID-19 pandemic, numerous people lost their lives, and a lot of industries were affected (The World Health Organization, 2021). The hospitality industry was affected the most and 70% of hotel employees lost their jobs (Wang et al., 2021). In the United States, the hotels and resorts had to close due to an executive order (Barti et al., 2020). After a few months, when hotels reopened, the industry had to face challenges due to social distancing, travel restrictions, and safety issues (Gursoy & Chi, 2020). During that time, not only did customers' expectations change but also their recommendation of the hotels to friends and colleagues changed (Miao et al., 2021).

There are several previous studies that found out which factors made customers recommend hotels to others, but none of the studies had determined which factors were affecting guests' hotel recommendations after the reopening from the COVID-19 pandemic. The study used secondary data (online surveys) from one of the well-known integrated resorts located in the western United States. Data was collected in June of 2019, before the COVID-19 pandemic, and in June of 2021, after a one year from the reopening from the pandemic closure. The key variables are cleanliness, location, room, service, and value. From the findings, hotel managers can determine what the hotels can do to increase guest recommendations after the reopening from the COVID-19 pandemic.

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Chapter 1

Introduction

The first chapter included eight sections. The first section introduced the justification and background of the study. Problem statements and research questions were provided in the second and third sections. The purpose and significance of the study were introduced in the fourth and fifth sections. The sixth and seven areas discussed delimitation and limitations. Lastly, the definitions of terms were provided.

Justification and Background

In 2019, COVID-19 was first found in Wuhan, China, and it spread quickly into different countries including the Americas, Europe, South-East Asia, Eastern Mediterranean, Western Pacific, and Africa (WHO, 2021; Zheng et al., 2021). By 2020, more than 80% of countries have closed their borders, stopped issuing visas, suspended flights, and proposed travel restrictions (Barti et al., 2020). Based on other research, when the pandemic started, the hospitality industry got hit faster than other industries, and it took a long time for it to begin to recover (Nicola et al., 2020; Zheng et al., 2021). This is not the first pandemic that people faced. In 2003, when there was a SARS virus outbreak, over three million people who used to work in the hospitality industry lost their jobs (Zheng et al., 2021). After SARS, people's lifestyles also changed; for example, they embraced outdoor activities and eco-tourism (Miao et al., 2021; Wen et al., 2021).

According to WHO (2021), more than 222 million COVID-19 cases have been confirmed globally including four million deaths. In addition, international tourists' arrival decreased by 85% from January to May 2021 compared to 2019 (UNWTO, 2021). America lost 72% of tourist arrivals, Europe lost 85%, Africa lost 81%, the Middle East lost 83%, Asia and the Pacific lost

95% of travelers. On top of that, international tourism lost around US$1.1 trillion in export revenues (UNWTO, 2021).

Zheng et al. (2021) stated that due to COVID-19, the hospitality industry lost their customers, and travel fear made people not want to travel. However, when people traveled, they protected themselves from health risks more than before. After vaccines being distributed, many people are eager to travel, however their ideas and thoughts about travel and hotels might have changed due to the pandemic and public fear (Roche, 2021; Zheng et al., 2021). As previous research discovered, people like to travel to cities that have a low number of COVID-19 cases, where they can feel safe and not exposed to the risk of the virus (Gursoy et al., 2020). Generally, guests are not familiar with the travel location, and they like to see the online reviews or hear experience from others (Vermeulen & Seegers, 2009). Selecting hotels was always an important decision for them (Miao et al., 2021). When they booked hotels, they considered hotel comfort factors and hotel compensatory factors (Sohrabi et al., 2012). Hotel comfort factors include hotel staff and their services, pleasure, car parking, room comport, room cleanliness, and network service (Sohrabi et al., 2012). Hotel compensatory factors include expenditure, security, protection, and recreational information (Sohrabi et al., 2012). Therefore, most people tend to look at hotel reviews or ask for recommendations before they book hotels (Kim & Hardin, 2010; Vermeulen & Seegers, 2009). When they do, they will be able to have a second experience and make a good decision for booking hotels (Vermeulen & Seegers, 2009; Wen et al., 2021). Some guests recommend hotels and leave positive reviews, but some leave negative reviews based on their stay (Barreda & Bilgihan, 2013; Vermeulen & Seegers, 2009). Therefore, it is essential to know which factors affect guests to recommend hotels to others after the reopening on June 4th, 2020, from the shutdown.

Theoretical Background

The theoretical backgrounds of this study are the service quality model and servicescape model. First, the service quality model is based on the customer expectation about service and perceived service (Gronroos, 1984). After most hotels reopened from their closures in the U.S in June 2020 (Stuz, 2020), guests have different expectations of hotels, and based on services that they receive from hotels, they may or may not recommend hotels. Second, the servicescape model determined that people act differently depending on the physical environment (Bitner, 1992). Guests may recommend hotels to others based on the physical environment, which are hotel rooms and location. From the findings, hotels and management teams can estimate what makes guests recommend hotels to friends and colleagues. Moreover, they will understand the status quo, guest preferences, and thoughts about hotels after the reopening.

The current study will be beneficial for the hospitality industry, including hotels, resorts, and Airbnb. Since the study will compare the determinants of guests' recommendations before and after the reopening from the COVID-19 pandemic, the hospitality industry can also understand the recent travel trends. By knowing the factors influencing guests' hotel recommendations after the reopening, hotels can effectively increase occupancy rates and take care of their guests well. Most importantly, when hotels can concentrate on the influential factors, it will help the hospitality industry to recover faster. Guests would rather travel and stay in hotels where they can fulfill their needs (Sohrabi et al., 2012). That is, by applying these factors as a priority, hotels will be able to recover faster and attract more guests.

Problem Statement

COVID-19 brought adverse effects in numerous industries and businesses (Barti et al., 2020). It is known that due to the pandemic, the hospitality industry was paused for growth

(Nicola et al., 2020). However, it is not known which factors affect guests to recommend hotels after the reopening. Dube and Black (2010) discovered that traumatic events led people's behavior change and thoughts. In 2001, when the terrorists attached the United States, Americans were panicked and changed their behaviors in several ways. First, people cared about a product quality more than before. Second, they considered about time management more than before because they were uncertain about their security and longevity. Third, they reevaluated their priorities which means they started to think about their family as number one priority. Therefore, from the COVID-19 pandemic, people might change their expectations about hotels and consider different factors before they recommend a hotel to others. In the past, there was no such time in history that all the hotels were closed due to an executive order (Stepleton, 2020).

After the reopening from the COVID-19 pandemic, many hotels were uncertain how to keep guests safe from COVID-19, and the situation was challenged (Gursoy & Chi, 2020). Numerous hotels developed safety health plans to keep their employees and customers safe from COVID-19 (Gursoy & Chi, 2020; MGM Resorts International, 2020). According to Gursoy et al. (2020), in 2021, over 50% of customers stated that they are unwilling to travel and stay at hotels soon, and only around 33% of customers responded that they like to travel and stay at hotels. Most people did not feel comfortable traveling, and 18% said they preferred to travel to a destination that only has a few COVID-19 cases, offering tests and providing isolation when needed. Also, 40% of people said they would pay more to stay at hotels that provide safety precautions.

Since safety is essential during COVID-19, several hotels announced safety plans and one of the well-known Las Vegas resorts developed the seven-point safety plan (MGM Resorts International, 2020). The purpose of the plan is to keep everyone safe and not spread the virus

(MGM Resorts International, 2020). According to Chan and Lam (2013), guests consider safety as one of the critical components when they make hotel booking decisions, and based on the safety plan, hotel guests will recommend the hotels to friends and colleagues.

After the reopening, guests' expectations about hotel stay and consumption needs might differ because their lifestyle and travel preferences have changed (Wen et al., 2021; Zenker & Kock, 2020). Not only safety is an important component, but also other factors affect guests' hotel recommendations to others such as their friends and colleagues. COVID-19 was a big issue in the hospitality industry in all countries, and it is vital to know how to overcome challenges and behave well. Therefore, this research will guide the hospitality industry to understand which factors affect guests to recommend hotels before the COVID-19 pandemic and after the reopening.

Research Questions

This study answers the following research questions:

1. Which factors affect guests to recommend a hotel to others before the COVID-19 pandemic?
2. Which factors affect guests to recommend a hotel to others after the reopening from the COVID-19 pandemic?
3. What can hotels do to increase guest recommendations after the reopening?

Purpose of the Study

The purpose of this study is to discover which factors affect guest hotel recommendations before the COVID-19 pandemic and after the reopening from the pandemic, more specifically as follows:

1. Determine what factors affect guests' hotel recommendations before the COVID-19 pandemic.

2. Determine what factors affect guests' hotel recommendations after the reopening from COVID-19 pandemic.

3. Compare and contrast factors affecting guests' willingness to recommend a hotel to others before and after the reopening from COVID-19 pandemic.

This study uses secondary data (i.e., surveys data), and respondents are guests who stayed at an integrated resort located in the western United States during June 2019 (before the pandemic) and June 2021 (after the pandemic). Total 169 guests responded to the survey in June 2019 and 212 guests completed the survey in June 2021. Respondents are over 21 who are from the United States. The key variables are cleanliness, location, room, service, and value. The independent variable is the recommendations of the hotel. From the findings, the hotels will understand which factors affect guests most to recommend the hotels to others after the reopening. Furthermore, it will lead hotels to get many recommendations and increase guests' satisfaction.

Significance of the Study

This research contributes to both theoretical and practical knowledge of the likelihood of hotel recommendations to friends and colleagues. From a theoretical perspective, this study is unique as it compares the factors affecting hotel recommendations before the COVID-19 pandemic and after the reopening. The study used service quality model and servicescape model to provide a comprehensive understanding of which factors affect guests to recommend hotels to others after the reopening. Berry et al. (1988) stated that the service quality model demonstrates how to achieve desired quality in service, and it includes five dimensions including reliability, assurance, empathy, and responsiveness. Bitner (1992) developed the servicescape model, and this model defined that people change their behaviors depending on the environment. It includes

ambient condition, space/function, and signs, symbols, and artifacts. In this study, room and cleanliness are associated with this model.

This research is necessary because COVID-19 negatively impacted the hospitality industry (Wang et al., 2021), and people's travel styles have changed (Wen et al., 2021). For more than a year, numerous people could not travel due to travel restrictions (Gursoy & Chi, 2020), but now some countries have changed the travel rule due to vaccines being distributed (Roche, 2021). From a practical standpoint, the results of this study can allow hotels to provide high-quality service based on guest preferences. From the findings, hotels will understand guest preferences, ways to build a good relationship with guests, and increase revenue to overcome the loss that they had during pandemic closure. Overall, hotels will be able to operate hotels well to receive more positive guest recommendations.

Delimitation

The study includes three delimitations. First, the data was collected from guests who stayed at an integrated resort in the western United States instead of getting data from several resorts. Second, the study used survey data that were taken in June of 2019 and 2021 only, instead of utilizing all months. Third, the survey was not based on open-ended questions; therefore, the guests might have various opinions regarding factors affecting hotel recommendations.

Limitations

There are limitations to this study. First, every pandemic is unlike, and it could cause different effects in the hospitality industry (Zheng et al., 2021). Thus, it is difficult to clarify that hotels need to focus on the finding of this study to receive positive recommendations with other future pandemics. Second, each country faced different challenges due to the difference in

COVID-19 case numbers, executive orders, and rules (Barti et al., 2020; UNWTO, 2020). Therefore, it might be difficult to say that these factors affect guest hotel recommendations in all the countries and cities. The subsequent study can focus on other industries that were affected, different types of pandemics, geographic areas, time, and type of resorts. Lastly, since at the time of writing the COVID-19 pandemic is still an ongoing crisis and there are some COVID-19 variance viruses, the literature on the subject is still limited.

Definitions of Terms

The following terms have specific operational definitions and are utilized in this research.

Cleanliness: It is a physical aspect, and there is a criterion. There should be no organic or inorganic noticeable stains on objects, and they should be free from germs, trash, and dirt (Zemke et al., 2015; Zhang et al., 2020). On top of that, whoever cleans the area should understand what specific surfaces were touched a lot during guests' hotel stays (Park et al., 2019).

Location: The area that is close to the airport, numerous transportations, and tourist attractions are considered a good location for tourists (Latinopoulos, 2020).

Room: Room in this study includes the room size, interior design, decoration, furniture, lighting, and artwork (Sadhale & Sathe, 2021).

Service: It is a non-physical aspect which is intangible, variable, inseparable, and temporary during a hotel stay (Zhang et al., 2020). It includes some characteristics such as staff skills, service attitudes, knowledge, and friendliness (Shao, 2017).

Value: Guests received the tangible or intangible product or service for the price (Bojanic, 1996). When guests pay lower prices, they tend not to expect high service or product. In contrast, when they pay high prices, they expect high service or product (Bojanic, 1996).

Recommendation: Guests express their positive opinions based on their experience and share their thoughts with others (Veloso et al., 2019). The other guests use this recommendation for future planning and booking (Veloso et al., 2019).

Word-of-Mouth: Guests share their hotel experience and opinions with others (Hernández, 2015; Wang et al., 2015). The other guests use this information source before they make a hotel reservation (Litvin et al., 2008).

Chapter 2

Review of Literature

Previous chapter mentioned that COVID-19 pandemic brought negative impacts on the hospitality industry. Many people changed their travel behaviors and lifestyles. They started to avoid places where many people gathered and were more concerned about their health than before the COVID-19 pandemic. When they made a hotel reservation, they preferred to read reviews from others or hear experiences to make a better booking decision. Therefore, this study will research which factors are affecting guests to recommend a hotel to others before the COVID-19 pandemic and after the reopening from the closure. The following review of literature will address six key areas of this research topic: (1) history of pandemics and economic impact, (2) people's behavior and lifestyle change during the COVID-19 pandemic, (3) COVID-19 impact on the hospitality industry, (4) word-of-mouth, (5) theoretical background including service quality model and servicescape model, and (6) hypotheses development.

The first section discusses the history of pandemics and economic impact. These past years, there were 19 major pandemics (World Economic Forum, 2020). Each pandemic impacted the economy but differently; thus, it is important to know how the economy recovered (Brodeur et al., 2020). The second section looks at the changes in people's physical health, psychological health, behavior, lifestyle, and reaction during the COVID-19 pandemic. During this period, people had to adopt the changes and it affected them negatively (Chen et al., 2020; Serafini et al., 2020; Shamshiripour et al., 2020). Most countries announced that COVID-19 was a pandemic and people's lives were changed and were not the same as before the pandemic (Rubin & Wessely, 2020). The third section describes how and why the hospitality industry crashed (Zheng et al., 2021). The most recent pandemic, COVID-19 brought tremendous negative

impacts on the hospitality industry because of interventions (Zheng et al., 2021). People could not travel, which in turn negatively impacted hotel occupancy and revenue (UNWTO, 2021). Also, numerous people who used to work at hotels lost their jobs (Aharon et al., 2021), but they also did not want to go back to work after the reopening from the pandemic (Williams, 2021). The fourth section explains about word-of-mouth. It effects on guests' booking behaviors and positive word-of-mouth bring positive view about hotels (Hussain et al., 2017). The fifth section describes this study's main theoretical backgrounds which are the service quality model and servicescape model. Based on these models, the 15 hypotheses of this study develop in the sixth section.

History of Pandemics and Economics Impact

When the population increases, diseases start to appear, and it becomes a constant problem in the world (World Economic Forum, 2020). In human history, there have been diverse pandemic events, and ever since the year 2000, there were more frequent virus outbreaks (Brodeur et al., 2020). This is because people were interacting with animals and other ecosystems, living together in large cities, and having trades with other countries (Brodeur et al., 2020; World Economic Forum, 2020).

According to the World Economic Forum (2020), after the year 1900, the major pandemics were Spanish Flu (1918-1919), Asian Flu (1957-1958), Hong Kong Flu (1968-1970), HIV/AIDS (1981-present), Swine Flu (2009-2010), SARS (2002-2003), Ebola (2014-2016), MERS (2015-present), and COVID-19 (2020-present). In 1918, the world had a difficult time due to the 1918 Spanish influenza pandemic, and after that, COVID-19 was the most serious pandemic (Ferguson et al., 2020). Pandemics always made people's lives difficult and created systemic economic shock (World bank group, 2020). Economies were forecasted to fall by seven

percent in 2020, as widespread social distances, a shrinking of financial conditions, and a collapse in external demand depressed activity (World bank group, 2020).

Brodeur et al. (2020), Brodeur et al. (2021), and Jonas (2013) stated that during the flu pandemics, two major reasons caused the economic crisis. First, social distancing and avoidance reactions caused a crisis. When people heard the pandemic news, they slowly reduced person-to-person contact. This followed the significant reduction in supply and demand. Also, when there was social distancing, lots of public gatherings got reduced, and public places were closed. Social distancing helped people to not distribute the virus, but it brought negative effects on economics. Second, the direct and indirect costs of diseases caused the crisis. Direct cost includes hospitalization and medical costs. When many people got viruses, it was difficult to take care of them all at the same time due to not having enough hospitals or medicine. Indirect cost includes businesses losing their workers and production. All these direct and indirect costs brought negative effects on the economy.

People's Behavior and Lifestyle Change During the COVID-19 Pandemic

COVID-19 changed people's physical health, psychological health, behavior, lifestyle, and reaction (Chen et al., 2020; Serafini et al., 2020; Shamshiripour et al., 2020; WHO, 2021). It was a threat and became a pandemic due to fast increasing case numbers (Barti et al., 2020). The government announced interventions such as social distancing, travel restrictions, and closure of public places (Barti et al., 2020). To contain the virus spread, the government had to issue these executive orders (WHO, 2020). According to Bezerra et al. (2020), 75.8% of people believed that social isolation would help to reduce COVID-19 case numbers.

The most recent pandemic, COVID-19, was first found in Wuhan, China in December 2019, and numerous people started to have symptoms of the virus (Zhu et al., 2020). People

experienced fever, headache, dry cough, tiredness, sore throat, loss of smell and taste (WHO, 2020). In late December 2019, other countries started to report that they had similar symptoms in their patients (Zhu et al., 2020). As time went by, it spread quickly, and most COVID-19 cases were confirmed by the Americas, Europe, South-East Asia, Eastern Mediterranean, Western Pacific, and Africa (WHO, 2021). COVID-19 got transmitted from person to person, by touching some objects or materials that were infected by a person who had the virus (WHO, 2020). As of October 2021, case numbers keep increasing due to virus variants. The World Health Organization (2021) defined that more than 219 million COVID-19 cases have been confirmed globally including 4.5 million deaths. Some people did not lose their lives but experienced brain hypoxia, carbon dioxide retention, edema, vascular dysfunction, and other morbid changes in their bodies (Wang et al., 2020).

COVID-19 brought psychological impacts to adults and children (Chen et al., 2020). During the pandemic, a lot of people started to have their anxiety because of family and friends' deaths due to the virus and heard of a high number of confirmed cases by the media (Rubin & Wessely, 2020). All the interventions including lockdown, stay at home, and social isolation, made people feel more uncomfortable than usual (Chen et al., 2020; Wang et al., 2020). They felt sad, angry, lonely, anxious, bored, worried, and stressed because suddenly they had to adapt to the pandemic situation (Chen et al., 2020; Serafini et al., 2020; Wang et al., 2020). When they were isolated at home, they were unable to enjoy outdoor hobbies, uncertain about their future, and unable to make plans for their lives (Parady et al., 2020; Serafini et al., 2020; Wang et al., 2020). On top of that, most of the people could not go back to work or meet other people to socialize (Serafini et al., 2020). Since they stayed at home for a long period of time, they felt fear

of job loss and financial insecurity (Khan et al., 2021). When there is financial hardship, people get the most stressed which harms their mental health (Kahn et al., 2021).

According to Shamshiripour et al. (2020), people changed their lives and behaviors due to COVID-19. These changes in behaviors manifested themselves in the hospitality industry in several ways. First, many people got furloughed, started to work from home, and utilized online meetings instead of face-to-face meetings. Second, people started to enjoy online shopping more than in-store shopping. People even ordered their groceries online. Third, with all social distancing, stay-at-home orders, and interventions required people to change their travel styles (Zheng et al., 2021). People thought several times before they planned for a trip and showed protective behavior about travel decisions (Miao et al., 2021). More than 50% of people stated that due to COVID-19, they canceled or delayed their trips because they were uncertain about traveling (Butler, 2020; Parady et al., 2020). People became reluctant to travel and stay at hotels because they thought hotels were places where diverse people interact together; thus, they thought if they travel, they have a high chance of transmitting a virus (Shamshiripour et al., 2020; WHO, 2020). Moreover, 43% of people stated that they neither felt comfortable nor safe taking planes to travel because airplane spaces were small and had to be shared with others (Butler, 2020; Parady et al., 2020).

COVID-19's Impact on the Hospitality Industry

COVID-19 slumped the hospitality industry's growth and suspended the growth (Nicola et al., 2020). The hospitality industry is one of the major economic sectors and is very sensitive to natural hazards like pandemics (Dube et al., 2021). China first discovered COVID-19, and its hospitality industry experienced negative effects first (Aharon et al., 2021). During the other pandemics, the hospitality industry experienced a large economic impact, financial losses, and it

took a long time to recover (Tanna, 2020; Zemke et al., 2015). One of the main issues was a low hotel occupancy (Zheng et al., 2021). Hotels experienced a significant hotel occupancy rate dropping by 89% by the end of January 2020 and a loss of over US$9 billion in revenue (Aharon et al., 2021; Nicola et al., 2020). Europe lost almost one-billion-Euro revenue every month (Duarte et al., 2020). United States hotels lost about $83.7 billion in room revenue in 2020 and $51.2 billion in 2021 compared to 2019 (Aharon et al., 2021).

Throughout history, there was no such time that all Las Vegas hotels closed except during the COVID-19 pandemic (Gursoy & Chi, 2020). MGM Resorts is one of the biggest resorts in Las Vegas with numerous properties on the Strip and they temporarily suspended all hotel operations on March 16th, 2020, for the first time due to government regulation (Stepleton, 2020). After 78 days, some properties reopened, but they had to set the 25% of capacity limitations and followed COVID-19 guidelines by the governor (Stuz, 2020). Due to all the rules and regulations, they could not operate hotels the same as before the pandemic (Stuz, 2020).

Before the pandemic, the hospitality industry was creating numerous jobs for people because the industry was growing and many people were traveling (Aharon et al., 2021). However, due to the pandemic, instead of creating jobs, 62 million hospitality employees lost jobs (Aharon et al., 2021). One of the well-known hotel brands, Marriott International furloughed about 174,000 employees and Hilton Worldwide borrowed 1.75 billion dollars to operate their business (Nicola et al., 2020). Moreover, when MGM resorts suspended the operations, it furloughed 62,000 employees, and after the reopening they did not bring 18,000 employees back due to business demand (Staff, 2020). Even though hotels called employees to come back to work, many employees declined (Aharon et al., 2021; Staff, 2020). This is because

the hospitality industry was not the same as before the COVID-19 pandemic and employees were worried about their health (Aharon et al., 2021; Staff, 2020).

Many people had to cancel their trips or hold on to their travel plans during the COVID-19 pandemic because of health threat, and infectious diseases at a travel location (Gursoy & Chi, 2020; Zemke et al., 2015). However, people started to travel when vaccines were distributed, and there was no limited occupancy for hotels (Chang et al., 2021; Roche, 2021; Zheng et al., 2021). As times went by, hotels started to pick up occupancy, and they needed to rehire many employees to run the hotels; however, it was not easy to hire them (Chang & Chang, 2021; Williams, 2021). Especially, numerous hotel housekeeping departments had a difficult time compared to other departments due to a shortage of staff (Levtchenko, 2020). They were overwhelmed and had tremendous pressure because they needed deep cleaning of all areas (Levtchenko, 2020). Chang and Chang (2021) stated that there are three reasons why it was difficult to hire hotel employees. First, hotels were the place where a lot of tourists gathered. As a result, people did not feel safe to work. Second, the government had many support programs; therefore, even though people did not have a job, they were able to live. Third, more than a year into the pandemic, some people started to rethink their careers and lives. Some people started to go to school or learn other skills and find other jobs. As a result, numerous hotels struggled to fill positions even as the demand grew (Williams, 2021).

Word-of-Mouth

When people travel, they want to make a good hotel booking decision (Sohrabi et al., 2012). Since service is invisible and intangible, people tend to rely on the recommendations more (Vermeulen & Seegers, 2009). There are some people who like to share their opinions regarding about products or services and this helps others to know products or service

information (Hernández, 2015). Word-of-mouth effects on guests' buying behaviors and it plays an important role before they make a purchase decision (Kowatsch & Maass, 2010). Also, products value increase based on positive word-of-mouth or recommendations from sellers or other customers (Kowatsch & Maass, 2010). Word-of-mouth became one of the effective marketing strategies due to a low cost and fast delivery (Trusov et al., 2009). Especially, it is an important factor in the hospitality industry because guests like to hear about other's experiences before they make a booking decision (Hussain et al., 2017). According to Cantallops and Salvi (2014), word-of-mouth mainly impacts on customers in three ways. First, customers reduce the risk of making a wrong booking decision. Second, customers improve their attitudes towards to a hotel because guests are aware of hotel. Third, guests can compare hotel information easily and it help them to make a good decision booking process. Since word-of-mouth impacts on guests' booking decisions, hotels need to make sure to satisfied guests and gain positive word-of-mouth (Hussain et al., 2017; Rajagura & Hassanli, 2017).

Theoretical Background

This study utilizes two models such as service quality model and servicecape model. Service quality is influenced by several factors including producers, guests, places, and day. Service providers may provide different services to customers based on their experiences, abilities, and tools (Mosadeghrad, 2011). Furthermore, servicecape is influenced by physical environment, atmospherics, and decorations (Bitner, 1992).

Service Quality Model

Service quality is the most important fundamental in the hospitality industry (Ali et al., 2021; Anwar, 2017; Bonjanic, 1996). In service organizations, it is important to provide good services constantly because it is profitable (Berry et al., 1988). Providing good services all the

time and measuring good or bad services is not easy because service can be invisible and intangible (Ali et al., 2021). According to Berry et al. (1988), depending on the employees and days, service quality can change because it occurs when employees deliver the service to guests. The service quality model can be defined as people's anticipation of service providers and their thoughts about services that they received (Ali et al., 2021; Bonjanic, 1996; Gronroos, 1984; Berry et al., 1988). Berry et al. (1988) defined that service quality models can also be an equation as SQ= P-E. SQ is service quality, P is the guests' sense of given service and E is guests' expectation of given service. Moreover, the SERVQUAL research design helps to measure service quality. The dimensions include reliability, assurance, tangibles, empathy, and responsiveness.

According to Ali et al. (2021), the first dimension is reliability, and it applies when hotels provide accurate services or solve problems at the right time. Reliability is important during check-in time. When staff can check-in guests at check-in time by providing an accurate room type those guests book for without making mistakes, guests will be satisfied. Also, during check-out time, when staff can fix billing issues or resolve complaints about their stay in a short time, guests will think that they are receiving good services. The second dimension is assurance, and it defines providing employees' knowledgeable service to guests. This helps guests to trust hotels more and can make guests think that what they paid is valuable and worthy. When guests ask questions about information, including hotel facilities, restaurant hours, tours, transportations, and staff provide the right information quickly, guests feel that what they paid is worth it. The third dimension is tangibility, and it includes hotel facilities, location, and cleanliness of rooms. This can give the first impression about hotels to guests and can give an image that these hotels can provide good services to guests. The fourth dimension is empathy, and it shows employees

care and attention towards guests. When guests complain and employees listen and understand situations, guests feel happy. The fifth dimension is responsiveness, and it explains how the staff is willing to assist guests with their requests and response. When guests request special amenities or upgrades that staff can honor, guests will be satisfied with exceptional services. The reliability, assurance, empathy, responsiveness, and dimensions are associated with the service variables in this study. The tangibles dimension is related to the room, location, cleanliness, and location dimensions. All five dimensions can affect guest ratings on the quality of services they received, compared to the amount they paid to stay at a hotel (i.e., value).

Overall, service quality affects guest satisfaction (Radojevic et al., 2017; Tefera et al., 2016). When hotels fulfill guests' expectations and provide outstanding services, they will be satisfied and will recommend hotels to others (Anwar, 2017; Gronroos, 1984). Once guests are satisfied with services, it brings numerous advantages to hotels such as having a good relationship with guests, gaining loyalty, attracting more customers, and increasing hotel revenue (Radojevic et al., 2017).

Servicescape Model

Bitner (1992) stated that the physical environment, atmospherics, and decorations influence guests' satisfaction, guest behavior, and social interactions between guests and employees. The physical setting is important because it can influence customer satisfaction without employees providing services to them (Bitner, 1992). The interesting fact about physical settings is that they can be changed and managed by people (Bitner, 1992). Once the physical setting is changed, it might attract guests to visit or make them avoid the place (Bitner, 1992). The servicescape includes the following: (1) spatial layout, (2) ambient conditions, (3) signs, symbols, and artifacts. First, spatial layout includes furniture arrangement and room layout.

Second, ambient conditions include air quality, smell, noise, temperature, and lighting. Air quality is a cleanliness variable in this servicescape model because some hotels allow guests to smoke, and non-smokers do not like smoky air quality. Some guests think casino hotels are too smoky, which means they have a negative thought about air quality (Lucas, 2008). Third, signs, symbols and artifacts include room decorations, colors, and designs (Bitner, 1992; Lin, 2004). This is related to room condition in this study. Bellizzi and Hite (1992) discovered that colors and lights affect personal moods and emotions. A physical environment that has warm and bright color backgrounds attract more customers than a place that was decorated with dark colors (Bellizzi & Hite, 1992). Also, when a room's ceiling is high, furniture is laid out well, the interior is fancy with luxurious decorations and meets guests' standards, it influences guests' overall hotel experience and makes them feel satisfied (Lin, 2004; Line & Hanks, 2019). The spatial layout, ambient conditions, signs, symbols, and artifacts are associated with the room and cleanliness variables in this study. When guests stay in clean rooms in a good condition, their behaviors change, they feel satisfied with their stay and like to share the experience with others (Litvin et al., 2008; Wang et al., 2015). Therefore, these variables in the servicescape model can affect guests to recommend hotels to others (Line et al., 2019).

When guests are satisfied, they like to recommend their experience to others (Litvin et al., 2008; Wang et al., 2015). Word-of-mouth is the most important component when customers purchase products or book hotel rooms (Litvin et al., 2008; Wang et al., 2015). Line et al. (2019) discovered that, based on the servicescape model, when a customer is satisfied with hotels, they are likely to spread positive word-of-mouth about the hotels. Especially in the hospitality industry, new guests tend to rely on others' opinions because others already experienced services

(Vermeulen & Seegers, 2009). At the end of the day, guests' satisfaction will make them circulate positive word-of-mouth (Litvin et al., 2008).

Hypotheses Development

Past research has proven that customer satisfaction is a paramount factor in the hospitality industry to gain customer loyalty, have a good relationship with guests, increase hotel revenue, and attract more customers and receive positive word-of-mouth and reviews (Ali et al., 20201; Radojevic et al., 2017; Wang et al., 2017). Based on the service quality model by Berry et al. (1988), when hotels provide exceptional services and meet guests' expectations, guests will be satisfied and recommend hotels to others (Litvin et al., 2008; Radojevic et al., 2017). Guests might think cleanliness, location, room, service, and value are important factors during their hotel experience. After the reopening from COVID-19, guests still might consider those five factors before they recommend hotels, but it is unsure. Therefore, the study developed this study developed following 15 hypotheses.

Effect of Cleanliness on Guest Recommendation

Room cleanliness has been a core factor and basic expectation for guests (Barber & Scarcelli, 2010; Sharma & Kaushik, 2021; Zemke et al., 2015). Clean hotel rooms affect guest satisfaction and their consumption behaviors (Barreda & Bilgihan, 2013). Researchers found that when hotel room cleanliness meets guests' expectations, their satisfaction increases, and when cleanliness does not meet their expectation, they will have a negative impression. They also revealed that people wrote negative reviews more frequently when their hotel rooms were not clean during their stay (Barreda & Bilgihan, 2013). Moreover, during hotel stays, most guests complained about cleanliness to hotel staff because their rooms were not clean (Barreda &

Bilgihan, 2013; Zemke et al., 2015). Some guests stated that they would pay a premium price to get disinfection guaranteed clean rooms (Zemke et al., 2015).

It is a known fact that hotels are areas where many people share places, interact with each other, and touch the same surfaces (Park et al., 2019; WHO, 2020). After the reopening from the pandemic, 5,800 out of 10,000 (58.4%) people stated that they want to know what hotels are doing to protect them from virus outbreaks (Butler, 2020). Although cleanliness was an important component (Lockyer, 2005) before book hotels, now it has become a more important component (Sharma & Kaushik, 2021; Wachyuni & Kusumaningrum, 2020). The housekeeping department agreed that COVID-19 made them think that clinically cleaning all areas is essential and safety is a priority (Sharma & Kaushik, 2021). Therefore, a lot of hotels announced new cleaning and sanitization procedures to protect and give a safe impression to guests (Levtchenko, 2020). One of the brand hotels, Wyndham Hotels and Resorts partnered with Ecolab and announced, “Stay Safe” which promised guests that safety is first (Hotels by Wyndham, 2021). Wyndham trained their employees to use EPA registered disinfectants to clean rooms, and other public areas (Hotels by Wyndham, 2021). After the reopening from the pandemic, people demanded cleanliness more than before and it affected a hotel's image (Atadil & Lu, 2021; Sharma & Kaushik, 2021). Therefore, the current study expects that after the reopening from the pandemic, it is more important to keep rooms and facilities clean to make guests feel satisfied and recommend hotels to others. Based on the aforementioned theories and prior studies, the following hypotheses were advanced:

H1a: Guests’ satisfaction with hotel cleanliness had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.

H1b: Guests' satisfaction with hotel cleanliness had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.

H1c: The effect of guests' satisfaction with hotel cleanliness on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.

Effect of Location on Guest Recommendation

Nowadays, hotel locations are one of the tangible attributes because people can research about surrounding areas of hotels and overview in advance (Melinas et al., 2019). According to Latinopoulos (2020) and Yang et al. (2018), convenient location is an important factor for guests with the following reasons: accessibility to points of interest, easy access for transport, and surrounding environment. It is not only an important factor for hotel guests but also essential for hotels to be successful in the short and long term for operation and logistics. When people travel, they are uncertain about the city's location. However, when a hotel is located in the center of the city, guests perceive that it is comfortable because they have accessibility to points of interest. Guests have a chance to maximize the utility of the city and can visit many places without spending much time. A good location has easy access to transportation and guests can utilize different transportations. Having the availability of both public and private transportation makes a big difference during a hotel stay.

Butler (2020) reported that about 50% out of 10,000 people stated that when they made a hotel reservation, they wanted to know how COVID-19 was affecting the local area. The pandemic made people prefer to travel to destinations that only have a few COVID-19 cases and offer tests and provide isolation when needed (Gursoy et al., 2020). Huang et al. (2020) discovered that when people traveled during the COVID-19 pandemic, they would rather walk, ride bicycles, and take personal cars to avoid the risk of contacting other people. They also

preferred to travel to their original destination where it was close to their city (>300km). In addition, guests wanted to hear positive stories about a local area (Butler, 2020). It explains that guests would rather stay in hotels that have good neighbors and a safe surrounding environment (Yang et al., 2018). When guests are dissatisfied with the location, they will leave negative reviews and ratings (Melinas et al., 2019). In sum, after the reopening from the pandemic, it is possible that hotel locations played a more important role in positive customer reviews and recommendations to others. Accordingly, this study proposed the following hypotheses:

H2a: Guests' satisfaction with hotel location had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.

H2b: Guests' satisfaction with hotel location had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.

H2c: The effect of guests' satisfaction with hotel location on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.

Effect of Room on Guest Recommendation

Bitner (1992) stated that the physical environment influences people's behavior. When guests walk into beautiful rooms, it creates a good impression (Obinwanne & Alozie, 2019). Hotel rooms are taking a major part in hotel business because it affects hotel's performance, high revenue, and guests' hotel experience (Kuang & Zhang, 2017; Siguaw & Enz, 1999). To keep a high occupancy rate, hotels need to keep updating and remodeling their rooms (Kuang & Zhang, 2017). Nowadays, well-decorated hotel rooms stand out more than standard design rooms (Kuang & Zhang, 2017). Design and interior include lights, floors, ceiling, walls, and windows (Obinwanne & Alozie, 2019). Hotels can control room designs and conditions to provide a fancy hotel stay to guests (Baek & Ok, 2017). When guests make booking decisions, they care about

room styles, arts, and cultural designs which look stylish and pleasant (Kuang & Zhang, 2017). The study has proven that hotel room colors, designs, lights and styles influence guests' satisfaction and their hotel booking decision (Baek & Ok, 2017; Lin, 2004; Obinwanne & Alozie, 2019). This is why hotels always seek an opportunity to update their rooms and they want to make travelers feel comfortable like home while they stay at hotels (Siguaw & Enz, 1999). Nowadays a lot of hotel guests are sensitive and selective about their environment (Obinwanne & Alozie, 2019). According to Doherty (2021), during the COVID-19 pandemic numerous hotels updated their rooms like a home with a private dining room which allowed people to work from hotels. Also, hotels removed many decorations, accessories, and updated floors to hard wood instead of carpets to keep rooms more hygienic as well as to meet customers' new expectations after the reopening from the pandemic. Thus, the current study expects that guest satisfaction with hotel rooms to have a more significant effect on guest recommendation after the reopening. In sum, the current study developed the following hypotheses:

H3a: Guests' satisfaction with hotel rooms had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.

H3b: Guests' satisfaction with hotel rooms had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.

H3c: The effect of guests' satisfaction with hotel rooms on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.

Effect of Service on Guest Recommendation

The hospitality industry was growing rapidly, and people demanded services (Jasinskas et al., 2016). During the pandemic, people were not able to travel due to restrictions, but after the

reopening, they want to travel and receive services (Zheng et al., 2021). Even though service can be intangible or invisible, guests sometimes do not care about spending money to purchase it if they can gain the service that they are looking for (Ali et al., 2021). A lot of hotels provide similar services to guests; therefore, it is necessary to provide superior services to retain old customers and attract more new customers (Jasinskas et al., 2016). Fulfilling customers' requests and satisfaction is always a challenge because their needs always change (Ali et al., 2021). In addition, since service is a performance, they cannot take it home (Getty & Thompson, 1995).

Many hotel guests expressed that when they stayed at hotels, greeting was one of the services that significantly affected their satisfaction (Brown & Azaroff, 1994). When hotel employees provide a friendly service attitude, have an empathic feeling, provide professional service, and solve problems quickly, customer satisfaction ratings tend to go up (Chen et al., 2015; Kuo, 2017; Shao, 2017). Furthermore, when a hotel provides a high level of customer service, it can help the hotel company create customer loyalty (Getty & Thompson, 1995). This is because there is a relationship between service quality and guest satisfaction (Tefera & Govender, 2016). That is, most hotels can improve guest satisfaction and gain positive word-of-mouth if they provide high quality services (Ali et al., 2021; Getty & Thompson, 1995). Superior service will build guests' loyalty, and in turn they will recommend hotels to others which will help hotels make critical revenue (Carev, 2008). Especially after the reopening from the pandemic, guests have demonstrated different service expectations to protect themselves from COVID-19, and hotels have changed their service policies and procedures to meet guest expectations. Atadil and Lu (2021) stated that self-service technology got popular and became a trend during COVID-19 pandemic due to social distancing and guest privacy. For example, hotels have implemented robot room service, mobile check-in and out, and voice control systems

to provide safe service. Thus, the current study expects that after the reopening from the pandemic, high level of services played an essential role to make guests to satisfied more and recommend a hotel to others. In sum, this study expected to develop the following hypotheses:

H4a: Guests' satisfaction with services had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.

H4b: Guests' satisfaction with services had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.

H4c: The effect of guests' satisfaction with services on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.

Effect of Value on Guest Recommendation

Value is linked to price and quality, and it is determined based on the quality of services that guests received compared to the money that they paid (El-Adly, 2019; Rajagru, 2016). Value has three patterns which include the following: (1) low price, (2) whatever one wants in a product, and (3) quality that guests receive for what they paid (Berry et al., 1988). Price plays a big role towards the value, and it indicates the amount of sacrifice and quality (Chen et al., 2015; Hellstrand, 2010). People consider price and value a lot before they make hotel room reservations (Hellstrand, 2010). When guests pay a small amount, they do not expect a high level of service; however, if they pay a lot, they expect full, perfect services (Rajagru, 2016). Keiningham et al. (2014) stated that customers and hotels are exchanging value. When customers pay a high price for service, hotel revenue goes up and guests receive high-quality service as well as gain satisfaction. Normally guests cannot decide service quality and value until they receive it (Getty & Thompson, 1995). Sometimes guests receive beyond and above services; however sometimes they might receive services lower than they expected (Milfelner et al.,

2011). If they think overall hotel stays were valuable, they tend to be satisfied, revisit, have loyalty, and recommend hotels to others (Rajaguru, 2016; Rajaguru & Hassanli, 2017). Due to COVID-19, many people lost jobs and had financial problems (Aharon et al., 2021). Since they have financial problems, their spending behavior has changed (Garner et al., 2020). People reduced spending money on unnecessary items including traveling and eating at restaurants (Garner et al., 2020). Therefore, the current study believes that after the reopening from the pandemic, it is important to make guest to think that a hotel stay is valuable because this can possibly have an effect on their satisfaction and recommendation of the hotel to others. Accordingly, this study proposed the following hypotheses:

H5a: Guests' satisfaction with hotel value had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.

H5b: Guests' satisfaction with hotel value had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.

H5c: The effect of guests' satisfaction with hotel value on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.

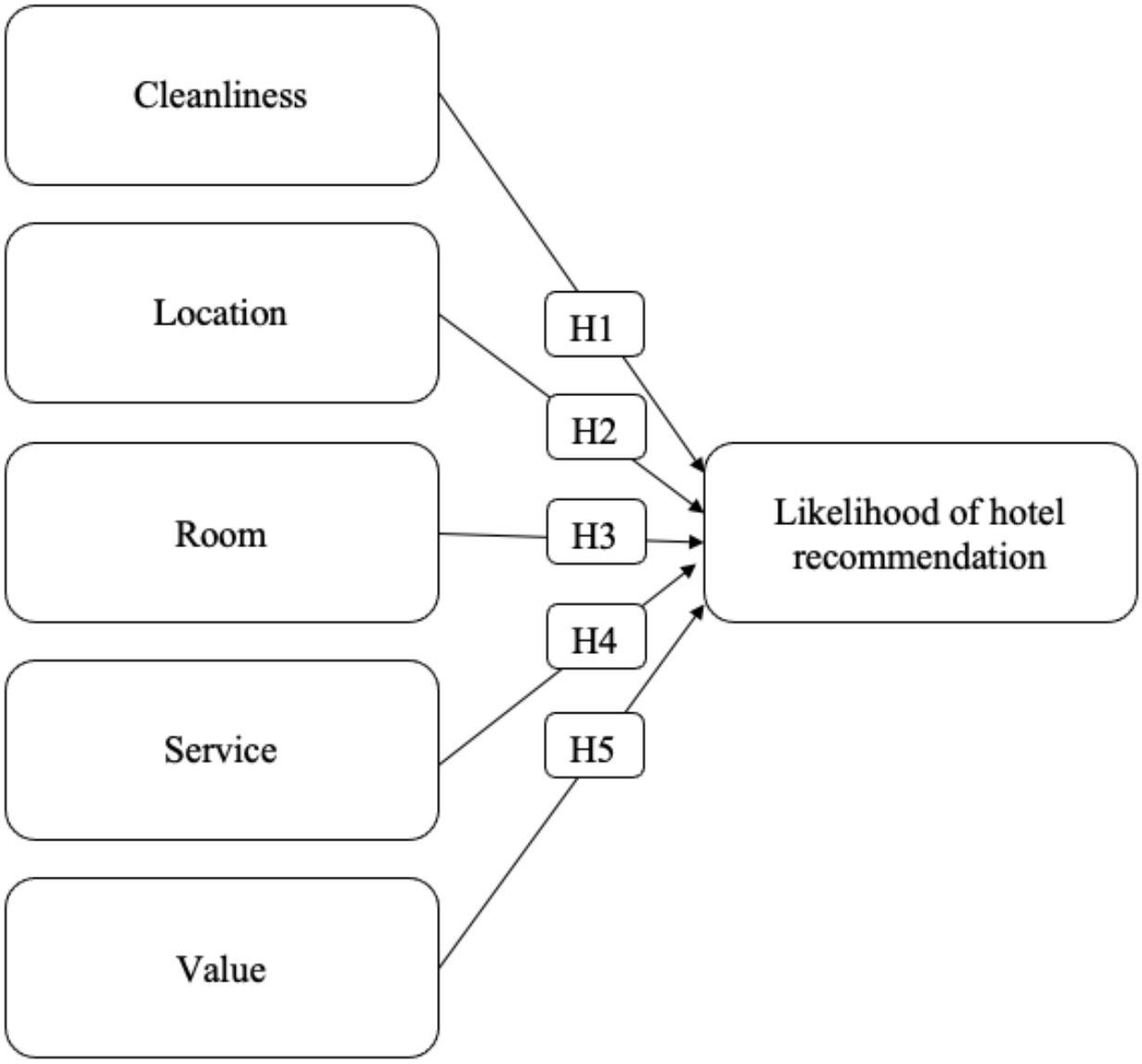


Figure 1. Research Model

Table 1 Summary of Hypotheses

Hypotheses
H1a: Guests' satisfaction with hotel cleanliness had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.
H1b: Guests' satisfaction with hotel cleanliness had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.
H1c: The effect of guests' satisfaction with hotel cleanliness on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.
H2a: Guests' satisfaction with hotel location had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.
H2b: Guests' satisfaction with hotel location had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.
H2c: The effect of guests' satisfaction with hotel location on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.
H3a: Guests' satisfaction with hotel rooms had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.
H3b: Guests' satisfaction with hotel rooms had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.
H3c: The effect of guests' satisfaction with hotel rooms on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.
H4a: Guests' satisfaction with services had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.
H4b: Guests' satisfaction with services had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.
H4c: The effect of guests' satisfaction with services on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.
H5a: Guests' satisfaction with hotel value had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.
H5b: Guests' satisfaction with hotel value had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.
H5c: The effect of guests' satisfaction with hotel value on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.

Chapter 3

Methodology

The goal of this chapter is to explain the research method of the study. It uses a quantitative method to help readers better understand the factors affecting guests to recommend hotels to others before the COVID-19 pandemic and after the reopening. This chapter describes the research questions, methodology selection, multiple linear regression method, random forest in machine learning, secondary data, data collection, study participants, biases, ethical concerns, and summary.

Research Questions

This chapter identifies the method used to find the following research questions.

RQ1: Which factors affect guests to recommend a hotel to others before the COVID-19 pandemic?

RQ2: Which factors affect guests to recommend a hotel to others after the reopening from the COVID-19 pandemic?

RQ3: What can hotels do to increase guest recommendations after the reopening?

Methodology Selection

Qualitative research is not about numbers, and it finds opportunities to study deeper phenomena and participants (Arendt et al., 2012). In contrast, quantitative research finds the relationship between variables, and results can be shown as numbers (Assaf & Tsionas, 2019). The purpose of this study is to find out which factors are affecting guests to recommend hotels to others during June 2019 (before the COVID-19 pandemic) and June 2021(after the reopening). The secondary data is valuable to this study because it was gathered from an integrated resort, and it included data from previous years without having a recall bias. Furthermore, the study

focuses on multiple linear regression and random forest in machine learning techniques. It combines several prediction decisions and indicates composite decisions (Breiman, 2001).

Multiple Linear Regression

Multiple linear regression (MLR) method was used in plenty of past studies when researchers wanted to find out the relationship between independent variables and dependent variables (Uyanik & Guler, 2013). This study's goal is to discover factors affecting hotel recommendations before the COVID-19 pandemic and after the reopening from COVID-19. Therefore, multiple linear regression is one of the methods to find out the relationship between variables. To use multiple regression, independence, multicollinearity, correlation coefficient, multivariate normality, linear relationship, and homoscedasticity should be adopted (Williams et al., 2013).

Random Forest in Machine Learning

According to Breiman (2001), random forests procedures grow numerous classification trees, and each tree provides classification. Later, the forest selects the classification that gets the most votes from each tree. There are two groups of methods such as bagging and boosting. In bagging, trees are not teaching each other and work alone. In boosting, trees are learning from the previous trees' mistakes and correcting them for trees that follow. There are three main advantages of using random forest: (1) it runs large data with a high accuracy, (2) it can take many input variables, (3) it gives an idea of what variable is a necessary classification. Thus, this study used random forest in machine learning to understand factors affecting guests' hotel recommendations.

Secondary Data

Church (2002) explains that secondary data is data that was already collected or analyzed by others and new researchers do not involve themselves in collecting it. Even though data was not collected by researchers, they reutilized this data and reanalyzed it for answering other research questions that were not found in the original study. Using second data brings advantages and disadvantages. Dale et al. (1989) and Johnston (2017) suggest that the main advantage of using secondary data is that researchers can save money and time. Normally it requires a long time to get a large amount of data and financial support. The main disadvantage of using secondary data is researchers cannot gain additional data regarding follow-up questions and they are not sure how well the data was collected.

In this study, secondary data is used for the following main two reasons. First, it is not easy to obtain 2019 data. When a researcher asks participants about past years' experience, it could cause recall bias, which makes a systematic error because most participants do not remember past events and experiences with details (Yuksel, 2017). Second, this study used data from the same hotel that was collected in June 2019 and June 2021. The hotel asked the same questions to participants; therefore, it is easy to compare the findings from two different periods.

Data Collection

This study uses secondary data; therefore, the Institutional Review Board (IRB) is exempted, and the company name is anonymous. The data used in this study is the result of online surveys distributed to guests who stayed at a well-known integrated resort in the western United States in June of 2019 before the pandemic or June of 2021 after the reopening from the pandemic. There are two monthly data in this study including June 2019 (before the COVID-19 pandemic) and June 2021 (after the reopening from the COVID-19 pandemic). It compares the

same month which is June; instead of different months to protect seasonal variation. During the data collection period, the resort did not remodel rooms, but some staff members were changed. The guests could utilize any devices to take surveys as long as it allowed them to have internet. Therefore, the secondary data (i.e., online survey data) was recorded electronically and was saved automatically in the company's cloud database. Later, the researcher received the Excel file and transferred data to SPSS to analyze the results.

The survey began with a mandatory linear numeric scale type question from range 0 (not at all likely) to 10 (extremely likely). It asked how likely they were to recommend the hotel to friends or colleagues. The other five questions (Table 2) used a star rating scale to ask about the cleanliness, location, room, service, and value. Participants could choose stars between 1 to 5. Following is the five-star rating system; 1 = “very unsatisfied”, 2 = “unsatisfied”, 3 = “neutral”, 4 = satisfied and 5 = “very satisfied”. The demographic data was collected through reservations automatically; therefore, surveys did not include demographic information. After removing incomplete responses, 169 complete responses were used for June 2019 and 212 responses were used for June 2021.

Study Participants

Surveys were written in English; therefore, the guests had to understand English, but it did not have to be their native language to take surveys. This is because the survey questions were simple. Participants were recruited through the integrated resort by email. The survey was sent to a guest's email that they provided during check-in and had seven days to complete the survey from their check-out dates. To receive the online survey, every guest had to stay at the hotel during June 2019 or June 2021 for a minimum of one night. The participants were not limited to any genders or age groups, but everyone had to be 21 years old or above. Since the

survey link and guest reservations were connected, the demographic questions such as age, segment groups, and states were automatically collected.

Biases

This study minimizes the following biases: recall bias, selection bias, and potential bias. First, the survey could not be taken after seven days from their check-out dates; thus, it avoids recall bias. When guests have unlimited time to take surveys, there is a possibility that guests might confuse the experience with other hotel stays. Second, the survey was sent to all guests who provided a correct email address; thus, it avoids selection bias. Third, the study uses surveys that were only sent to guests who stayed at the hotel at least one day during the particular period; therefore, it avoided having random respondents who stayed at other hotels.

Ethical Concerns

The study utilized secondary data, which answers different hypotheses and research questions from the original survey. The researcher was not involved in collecting data, but it still brought ethical concerns such as data confidentiality, security, and potential harm minimization. To protect privacy and confidentiality, this research mixes of the following conditions. First, all personal information such as names or identification information was removed before analyzing data. Second, the participants volunteered to take an online survey. Third, it did not cause any damage to the participants. Moreover, all data was safely saved in a locked folder after analyzing the result; therefore, it will not cause any future risks.

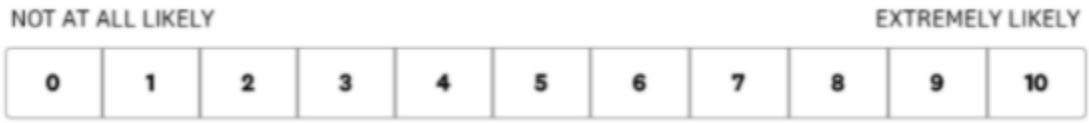
Summary

Chapter 3 discussed the methodology of this study. To answer the research questions, it used secondary data and analyzed data by multiple linear regression and random forest methods. Study participants were gathered from the integrated resort who were over 21 and the current

study made sure to avoid any possible biases and ethical concerns. The next chapter will provide the research result based on Chapter 3 methodology.

Table 2 Survey Items

1. How likely are you to recommend the hotel to friends or colleagues?



Please rate the followings:

2. Cleanliness

3. Location

4. Room

5. Service

6.Value

Chapter 4

Results

This chapter presents the results of this study to answer the following research questions:

1. Which factors affect the response variable “Likelihood to Recommend a hotel” to others before the COVID-19 pandemic?

2. Which factors affect the response variable “Likelihood to Recommend a hotel” to others after the reopening from the COVID-19 pandemic?

Additionally, this study will attempt to determine what the hotels can do to increase guest recommendations after the reopening from the COVID-19 pandemic.

This study utilized secondary data that was collected from a well-known integrated resort in the western United States. The statistical software SPSS and the statistical software environment R were used to analyze data. Specifically, the current study uses multiple linear regression (MLR) and the method of random forest (RF) from Machine Learning to discover key predictors affecting guests' hotel recommendations before COVID-19 and after the reopening from the COVID-19 pandemic. This chapter describes the demographic profile of the respondents, the results from multiple linear regression analysis, and the results from the machine learning method of random forest.

The MLR method fits a linear model to a continuous response Y as a linear function of the potential predictors (Uyanik & Guler, 2013). The method of RF is a decision tree-based method in which a large number of decision trees are used (i.e., 1000), with each decision tree using randomly selected predictors from all potential predictors. Each decision tree yields a predicted Y value (Y. pred); the average of these 1000 Y. pred values is the predicted Y-value

from RF (Lantz, 2015; Singh et al., 2018). The performance of the RF prediction is assessed by Root Mean Squared Error (RMSE) or Node Purity.

Demographic Profile of the Respondents

Respondents were recruited through emails and responded to an online survey. They must stay at the hotel at least one day with an age over 21 to receive the online survey. After deleting the same pattern of answers, 169 responses were used in June 2019, and 212 responses were used in June 2021. Table 3 and 4 describe the demographic profile of the respondents including respondents' age, segment groups, and states.

As shown in Table 3, in June 2019, the majority of respondents aged were between 40-49 years old (29%), followed by 50-59 years old (26%), 30-39 years old (24.3%), 60-69 years old (8.9%) and 21-29 years old (7.1%) and 70 years old or older (4.7%). The majority of respondents visited the hotel for the casino (34.3%), transient (30.8%), leisure (23.7%), and convention (11.2%). In addition, the most respondents were from California (27.2%), Texas (10.1%), Washington (7.1%), and Arizona (4.7%).

Table 4 represented the demographic background of guests who responded to the survey in June 2021. The majority of respondents were aged between 40-49 years old (32.5%), followed by 30-39 years old (25.5%), 50-59 years old (18.4%), 21-29 years old (13.2%), 60-69 years old (8.5%) and 70 years old or older (1.9%). Most respondents visited the hotel for transient (45.3%), casino (28.8%), leisure (16.5%), and convention (9.4%). In addition, the respondents were from the following states: California (26.9%), Texas (12.3%), Washington (7.1%), and Arizona (6.1%). The remaining respondents (47.6%) were from other states.

Comparing June 2019 and June 2021 demographic profiles of respondents, in 2019, the mean age of the respondents was approximately 46.23 years old and in 2021, it was

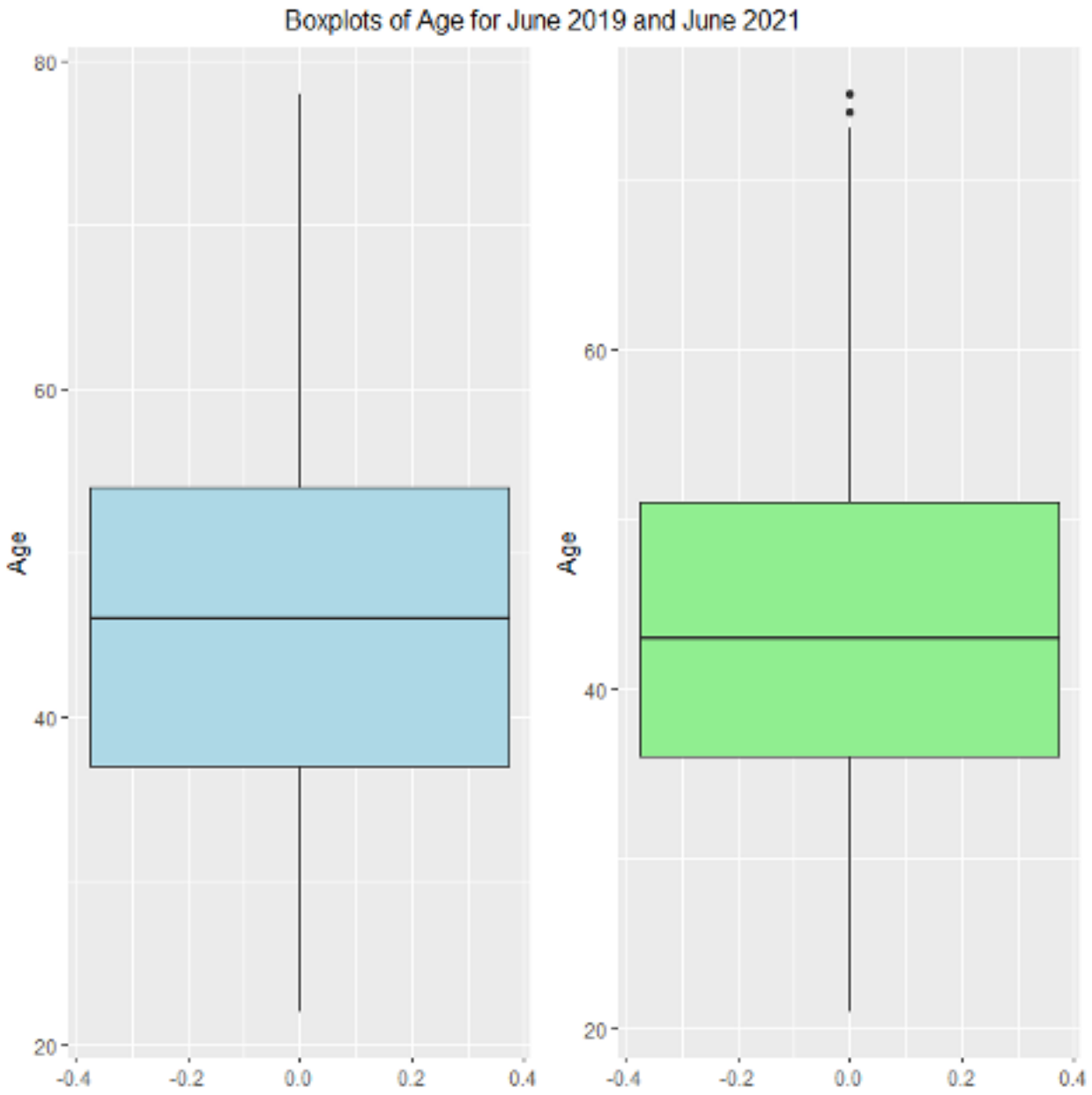
approximately 43.42 years old. Figure 2 explained that over the past two years, guests' average ages were getting younger. Moreover, in June 2019, casino guests visited the hotel the most, but in June 2021, transient guests stayed at the hotel more than casino guest.

Table 3 Demographic of Respondents in 2019 (N = 169)

Age Groups	N	%
21-29 years old	12	7.1
30-39 years old	41	24.3
40-49 years old	49	29
50-59 years old	44	26
60-69 years old	15	8.9
70 or older	8	4.7
Segment Groups		
Casino	59	34.3
Convention	19	11.2
Leisure	40	23.7
Transient	52	30.8
States (Top 5)		
CA	46	27.2
TX	17	10.1
WA	12	7.1
AZ	8	4.7
Other States	86	46

Table 4 Demographic of Respondents in 2021 (N = 212)

Age Groups	N	%
21-29 years old	28	13.2
30-39 years old	54	25.5
40-49 years old	69	32.5
50-59 years old	39	18.4
60-69 years old	18	8.5
70 or older	4	1.9
Segment Groups		
Casino	61	28.8
Convention	20	9.4
Leisure	35	16.5
Transient	96	45.3
States (Top 5)		
CA	57	26.9
TX	26	12.3
WA	15	7.1
AZ	13	6.1
Other States	101	47.6



Note: A box plot of age by year suggests that the mean age of players has decreased in 2021. This was confirmed by the method of t-test.

Figure 2. Box Plot of Age for June 2019 and June 2021

Multiple Linear Regression Analysis

Multiple Linear regression is one of the methods that most research uses to analyze data (Mason &Perreault, 1991; Uyanik & Guler, 2013). Therefore, the current study also uses multiple linear regression to identify factors influencing guests' willingness to recommend the hotel before the COVID-19 pandemic and after the reopening. To evaluate an overall model fit, this study used the R^2 and adjusted R^2 values. Multiple regression is based on the following six assumptions: independence, multicollinearity, correlation coefficient, multivariate normality, linear relationship, and homoscedasticity (Williams et al., 2013). The multiple linear regression has been used in numerous studies to test a model fit (Hair et al., 2010), and when the p-value is less than 0.05, it is statistically significant (Hooper et al., 2008). Moreover, Knofczynski and Mundfrom (2008) indicated that, depending on the sample size, there would be a statistically significant difference. Therefore, sample sizes should be determine based on numbers of predictor variables.

First, Williams et al. (2013) stated that to use multiple linear regression, a dependent variable and independent variables should be independent. As Figure 6 and 8 shown, these variables are good for multiple regression. This study's dependent variable is the likelihood of hotel recommendation, and the independent variables are cleanliness, location, rooms, service, and value. Second, when fitting an MLR model, the predictors should not have very high multicollinearity as measured by the Variance Inflation Factor (VIF); all VIF values were less than 5 for both 2019 and 2021 (See Table 7 and 8). Hence the predictor data did not suffer from high multicollinearity (Kim., 2019). In addition, Table 7 and 8 indicated how the dependent variable, likelihood to recommend hotels, was predicted by each independent variable. Third, the correlation was tested between a dependent variable and independent variables: the Figure 3

(June 2019) and Figure 4 (June 2021). These factors scales can range from -1.0 to 1.0 (Mukaka, 2012). Therefore, these correlation plots represented that there were no errors and variables were linearly related. Fourth, multivariate normality was evaluated by the P-P plot (Figure 9,10). The figures showed a straight line; therefore, there were no non-normality issues. Next, homoscedasticity was assessed based on histograms (Figure 5,7). Data were normally distributed, but to be clearer, standardized, Cook's distance and standardized DFFIT were additionally evaluated. All standardized scales were lower than 3, Cook's distance scale was not higher than 1, and standardized DFFIR score was not higher than 2 (Cook, 2011; Field, 2017). Table 5 and 6 explained model summaries, and when the adjusted R square is close to 1, it means a multiple regression model fit (Rahman et al., 2015). June 2019 adjusted R square was 0.78 and June 2021 was 0.77; therefore, the model accounted for 78% in June 2019 and 77% in June 2021. Overall, the regression model was statistically significant; however, it was not the best method for this study to finalize the result because the survey response was ordinal.

Random Forest Analysis

The current study also used Random Forest (RF) to achieve classification accuracy and provides the importance of different variables (Pal, 2005). The RF is a decision tree-based approach that can be used for regression and classification problems. It fits a large number of decision trees, each time using randomly selected predictors, and then uses the average of all fitted values (in case of regression) as the predicted response.

In the case of RF, the variable importance for each predictor is computed. The first importance measure is obtained from permuting Out of Bag (OOB) data: OOB error is the average prediction error on each training sample, using only the trees that are left out the is the predictor in the bootstrap sample. This is repeated for all other predictors. The difference

between the mean squared error (MSE) is averaged over all trees and then divided by the standard deviation of the differences.

The percentage of mean square error (%IncMSE) indicates how much RF model accuracy decreases if the current study leaves out that factor and finds the importance of each factor (Rumano, 2019). Figure 11 and Table 9 demonstrated that before COVID-19, guests liked to recommend hotels based on the following factors: value, service, cleanliness, room and location. Moreover, Figure 12 and Table 10 indicate the importance of variables after the reopening from COVID-19, and it includes value, service, room and cleanliness. After the reopening, the location factor no longer significantly affected guests to recommend hotels to others.

Support for Hypotheses

Table 11 summarized support for the proposed hypotheses. There are 15 hypotheses, and the current study's findings supported 12 but did not support three. The hyphothesis1c predicted that after the reopening from COVID-19, guests will consider a cleanliness factor more when they recommend hotels to others. However, the current study's results indicated that after the reopening, the cleanliness factor had less of an affect on guests' recommendations (See Figure 11 and 12). Moreover, hypothesis 2b predicted that location factor would influence guests' hotel recommendations after the reopening. However, the current study indicated that after the reopening, location was not a factor that affected guests' hotel recommendation. Therefore, hypothesis 2c was also not supported.

Summary

The current study used multiple regression and random forest methods to find results. Based on the outcomes from the random forest method, before the COVID-19 pandemic, value, service, room, cleanliness, and location were the significant factors that affected guests to recommend a hotel to others. However, after the reopening from COVID-19, only four factors which are value, service, room and cleanliness affected guest's recommendations.

Table 5 Model Summary (June 2019)

R Square	Adjusted R Square
0.7869	0.7791

Note: Predators: cleanliness, location, rooms, service, and value, Dependent Variable: Likelihood to recommend a hotel

Table 6 Model Summary (June 2021)

R Square	Adjusted R Square
0.7705	0.7638

Note: Predators: cleanliness, location, rooms, service, and value, Dependent Variable: Likelihood to recommend a hotel

Table 7 Multiple Linear Regression Coefficients with VIF for each predictor (June 2019)

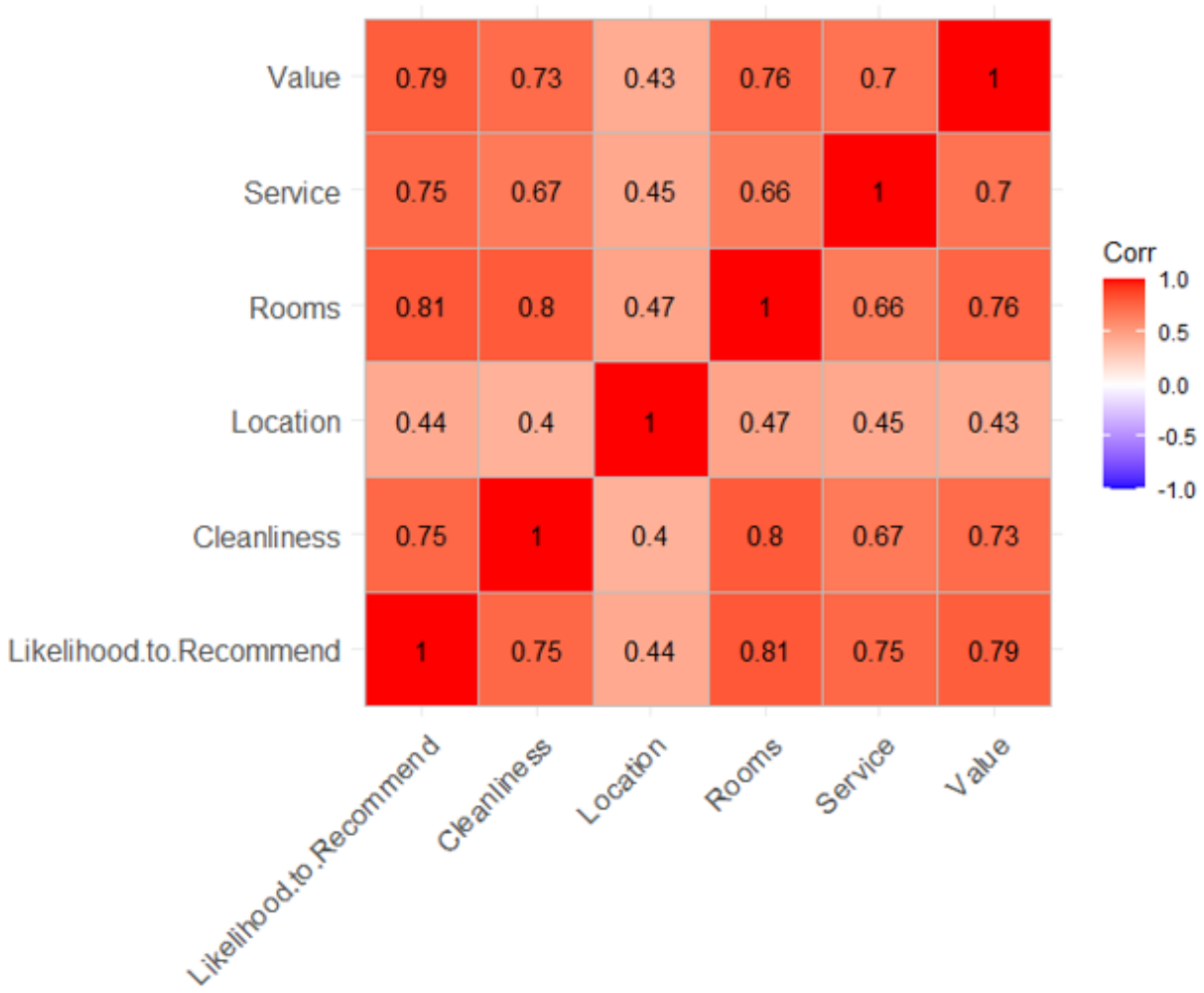
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	p-value	t-value	VIF
(Intercept)	-3.86	0.31		0.03	-2.16	
Cleanliness	0.03	0.08	0.01	0.95	-0.06	3.33
Location	0.41	0.07	0.12	0.02	2.31	1.56
Rooms	0.88	0.08	0.36	0.00	5.62	3.51
Service	0.81	0.07	0.33	0.00	5.10	2.46
Value	0.65	0.07	0.25	0.00	4.48	2.65

Table 8 Multiple Linear Regression Coefficients with VIF for each predictor (June 2021)

	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	p-value	t-value	VIF
(Intercept)	-3.86	0.31		0.50	-0.86	
Cleanliness	0.03	0.08	0.01	0.15	1.45	3.36
Location	0.41	0.07	0.12	0.76	-0.31	1.36
Rooms	0.88	0.08	0.36	0.00	5.86	3.64
Service	0.81	0.07	0.33	0.00	5.24	2.29
Value	0.65	0.07	0.25	0.00	4.54	3.00

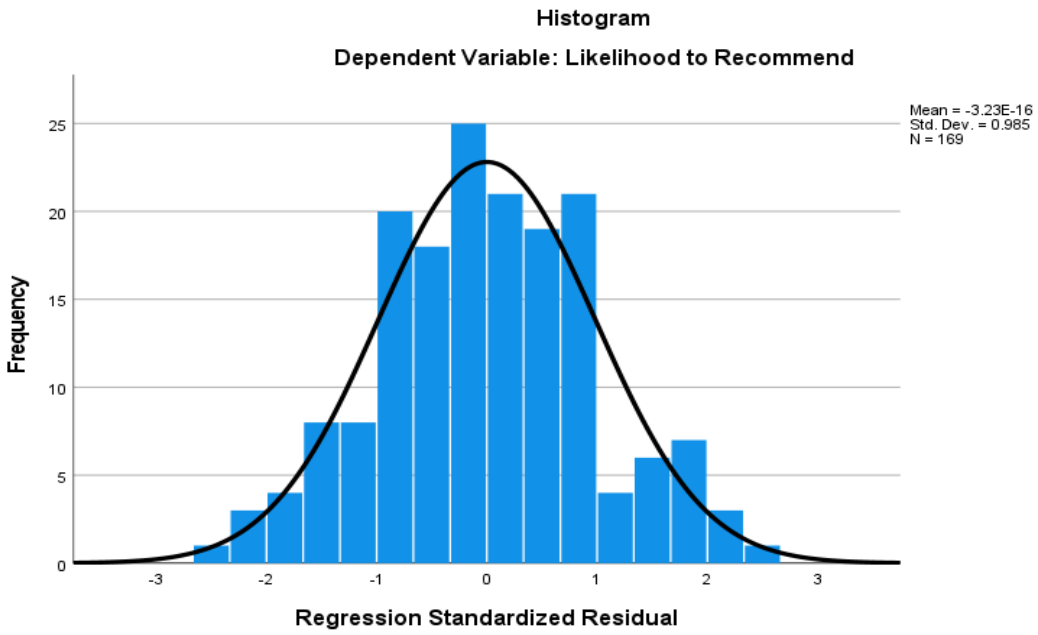
Note: Correlation plots of the 2019 response variable and the predictors.

Figure 3. Correlation Matrix (June 2019)



Note: Correlation plots of the 2021 response variable and the predictors.

Figure 4. Correlation Matrix (June 2021)



Note: Mean=-3.23, E-16, Std. Dev.= 0.99, N=169

Figure 5. Histogram (June 2019)

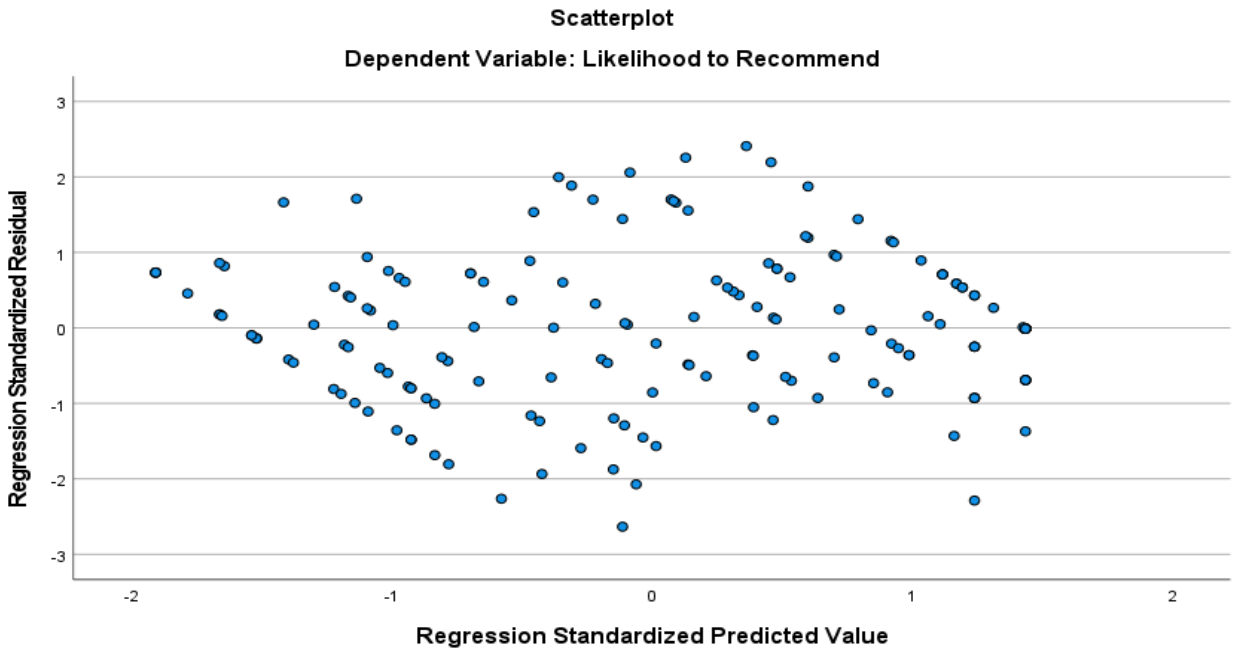
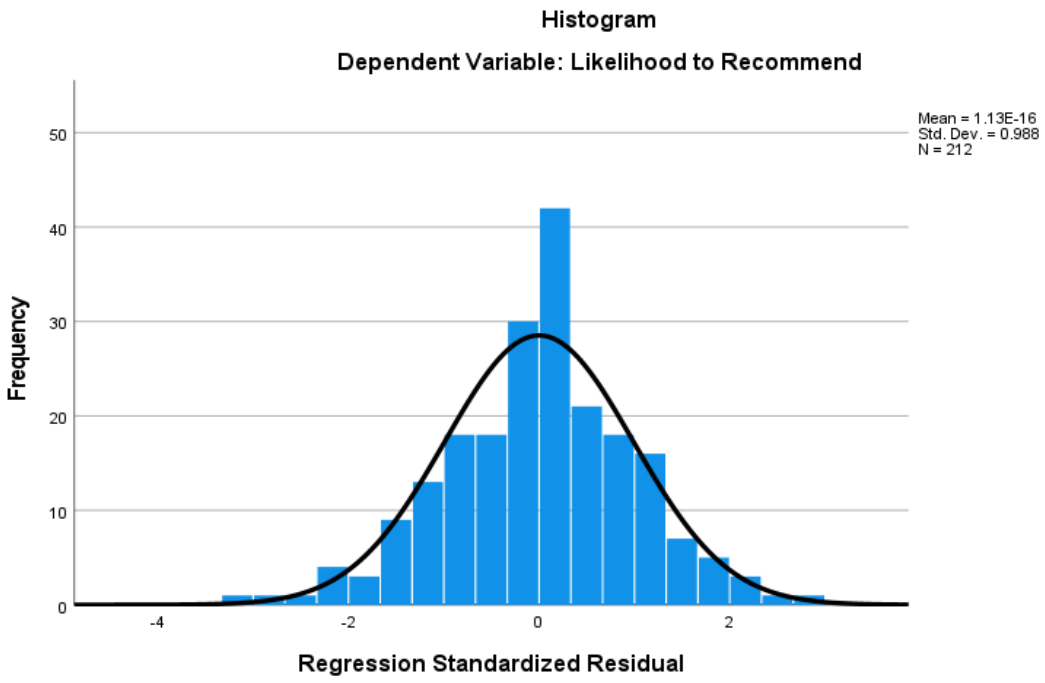


Figure 6. Scatterplot (June 2019)



Note: Mean=1.13, E-16, Std. Dev.= 0.99, N=212

Figure 7. Histogram (June 2021)

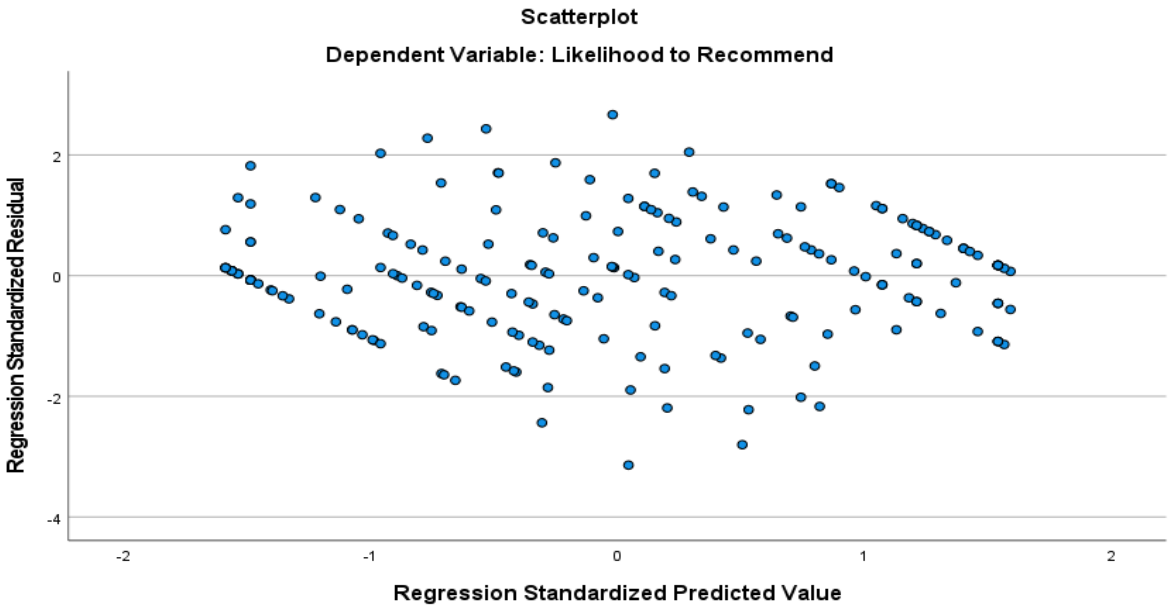


Figure 8. Scatterplot (June 2021)

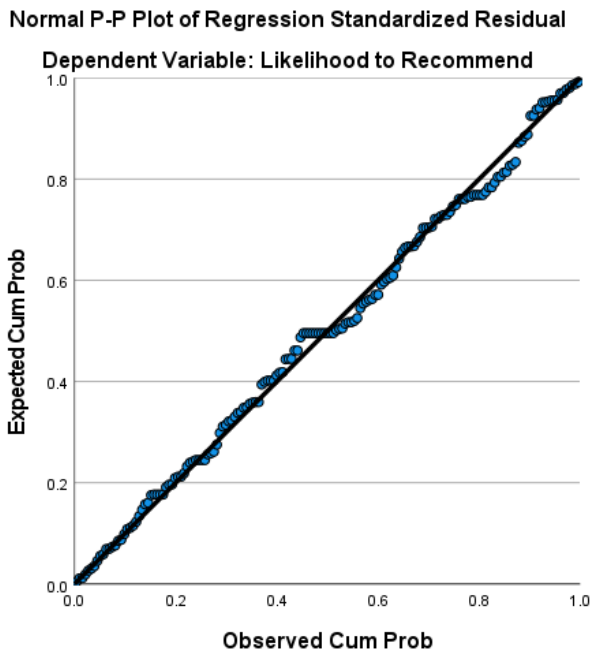


Figure 9. P-P Plot (June 2019)

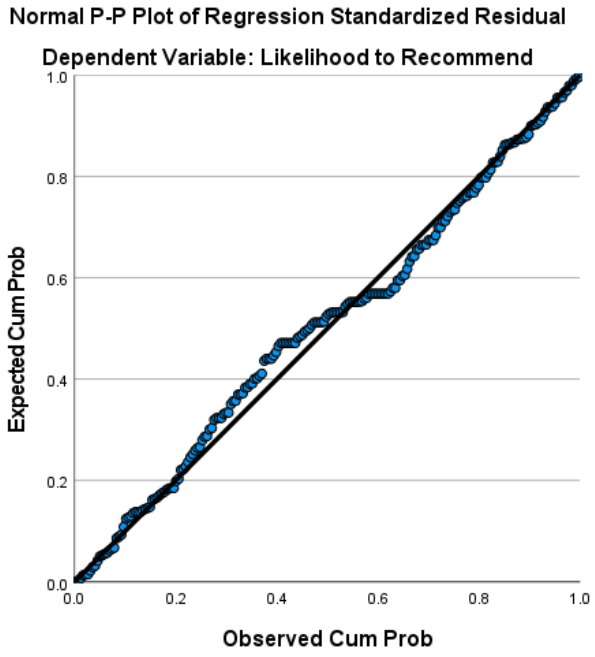


Figure 10. P-P Plot (June 2021)

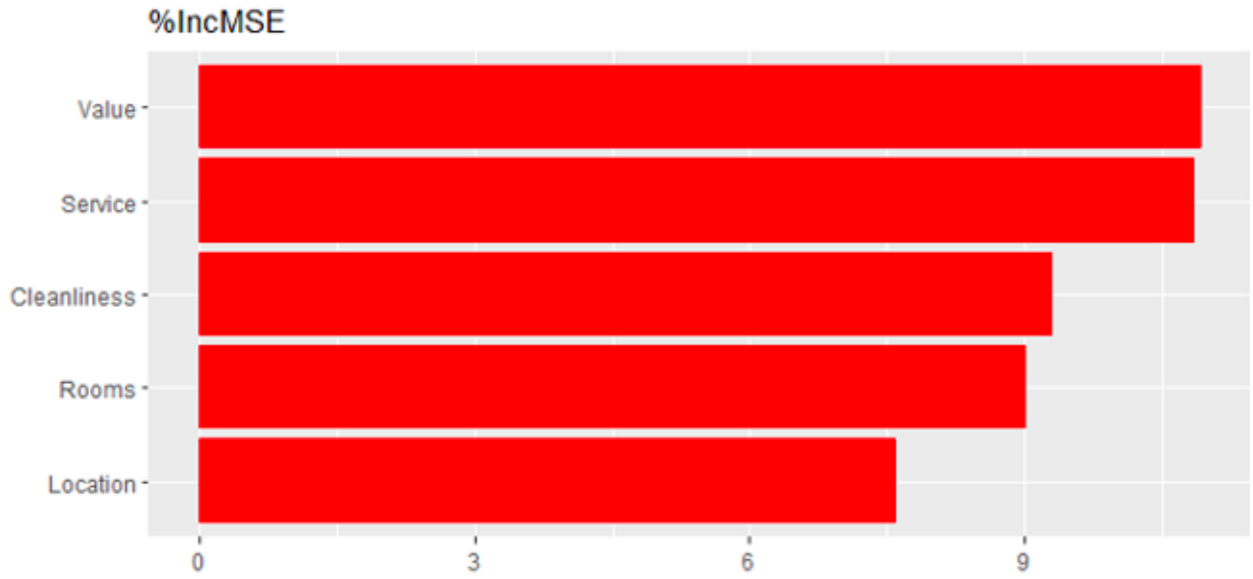


Figure 11. Variable Importance Plots of Significant Predictors in Regression (June 2019)

Table 9 % IncMSE (June 2019)

Predictor	
Value	12.52
Service	12
Cleanliness	10
Room	9
Location	7.5

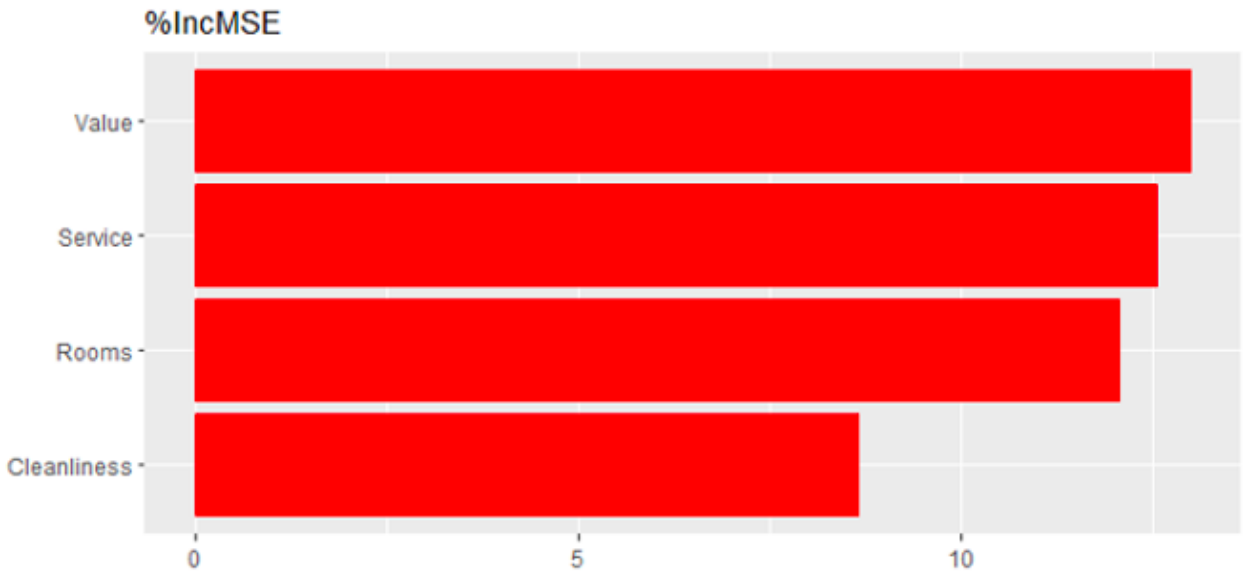


Figure 12. Variable Importance Plots of Significant predictors in Regression (June 2021)

Table 10 % IncMSE (June 2021)

Predictor	
Value	12.9
Service	12.2
Cleanliness	8.55
Room	11.9

Table 11 Results of Testing Hypotheses

H1a	Guests' satisfaction with hotel cleanliness had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.	S
H1b	Guests' satisfaction with hotel cleanliness had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.	S
H1c	The effect of guests' satisfaction with hotel cleanliness on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.	NS
H2a	Guests' satisfaction with hotel location had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.	S
H2b	Guests' satisfaction with hotel location had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.	NS
H2c	The effect of guests' satisfaction with hotel location on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.	NS
H3a	Guests' satisfaction with hotel rooms had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.	S
H3b	Guests' satisfaction with hotel rooms had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.	S
H3c	The effect of guests' satisfaction with hotel rooms on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.	S
H4a	Guests' satisfaction with services had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.	S
H4b	Guests' satisfaction with services had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.	S
H4c	The effect of guests' satisfaction with services on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.	S
H5a	Guests' satisfaction with hotel value had a positive effect on their willingness to recommend the hotel before the COVID-19 pandemic.	S
H5b	Guests' satisfaction with hotel value had a positive effect on their willingness to recommend the hotel after the reopening from the COVID-19 pandemic.	S
H5c	The effect of guests' satisfaction with hotel value on their willingness to recommend the hotel is stronger after the reopening from the COVID-19 pandemic.	S

Note: S=Supported; NS= Not supported.

Chapter 5

Discussion and Implications

Chapter four analyzed the data using multiple regression and random forest methods. The random forest method answered this study's research questions, and this chapter summarizes and discusses the findings. Lastly, this chapter explains the theoretical implications, practical implications, and limitations of the study and recommendations for future research.

Discussion of Findings

The purpose of this study is to find out which factors caused guests to recommend hotels to others before the COVID-19 pandemic and after the reopening from COVID-19. The pandemic brought many changes to the hospitality industry (Gursoy & Chi, 2020; Zheng et al., 2021), and this affected guests' hotel preferences and travel styles (Wen et al., 2021; Zenker & Kock, 2020). Even though survey questions were the same in June 2019 and June 2021, the results were different. As shown in Figure 11, before the COVID-19 pandemic, June 2019, guests considered five factors when recommending hotels to others. The order of their preferences was as follows: (1) value, (2) service, (3) cleanliness, (4) room, and (5) location. However, after the reopening from the COVID-19 pandemic, June 2021, the results slightly changed. The guests ranked the important factors as (1) value, (2) service, (3) room, and (4) cleanliness (See Figure 12). Furthermore, in June 2019, five factors were significant; however, in June 2021, location was not a significant factor that affected guests' willingness to recommend a hotel to others. The study also revealed that after the reopening from the COVID-19 pandemic, value, service, and room factors had stronger effects on guests' willingness to recommend as compared to before the COVID-19 pandemic. On the other hand, after the reopening, the

cleanliness factor was less important, and location was not a significant factor that affected guests to recommend hotels to others.

Eventually, from these findings, hotel operators can understand guests' travel trends, preferences, and opinions about staying at hotels after the reopening from COVID-19. By knowing these findings, hotel managers can differentiate themselves from other hotels. The hospitality industry is more sensitive from the pandemic than other industries (Dube et al., 2021); therefore, understanding each pandemic and guest behavior is essential. The current study provides empirical support for a previous study by Miao et al. (2021) that suggested after the reopening from COVID-19, hotel managers need to build new strategies to attract customers. If so, hotels can increase the likelihood to recommend hotels to others because guests' views and preferences have changed. COVID-19 is different from other pandemics because it has affected the hospitality industry globally, and the duration of the pandemic is longer than other pandemics (Kenny & Dutt, 2022). Therefore, it is crucial to compare which factors are causing guests to recommend hotels to others.

Theoretical Implications

The current study is unique because COVID-19 brought ample changes in the hospitality industry (Nicola et al., 2020; Zheng et al., 2021), and this is the first study comparing the factors that affect hotel recommendations before the COVID-19 pandemic and after the reopening. This study adopted the servicescape model by Bitner (1992) where servicescape influenced guests' behaviors and intentions to recommend hotels to others (i.e., word-of-mouth). Moreover, it adopted the service quality (SERVQUAL) model (Berry et al., 1988), which includes the following dimensions: reliability, assurance, tangibles, empathy, and responsiveness. The current

study makes multiple contributions by increasing understanding of which factors significantly affect guests to recommend hotels after the reopening from the COVID-19 pandemic.

First, this study demonstrates that before COVID-19 and after the reopening, the value factor significantly affected guests to recommend hotels to others. This finding is aligned with those of other studies that were conducted before COVID-19 (El-Adly, 2019; Rajesh & Rajesh, 2016; Wu & Liang, 2009). These previous studies supported that value is an important factor to increase customer satisfaction. Chan et al. (2021) stated that every guest has different opinions about value; however, they are aware that when they pay low prices for hotels, services and room qualities can be lower than luxury hotels where they pay a high amount. More specifically, a value is determined based on service or products that guests received, and a good value means sum of reasonable price and good quality (El-Adly, 2019; Wu & Liang, 2009). This study provides new insights into hospitality literature by examining the relationship between a guest's perceived value of a hotel and his/her willingness to recommend the hotel, before and after the reopening from COVID-19. More importantly, this is the first study which revealed that after the reopening, value influences guests to recommend hotels more significantly than before COVID-19.

Second, this study demonstrates that the service factor played an important role before COVID-19 and after the reopening. This study provides support for previous studies conducted before the pandemic (Carev, 2008; Jainskas et al., 2016) that proposed that providing great service makes guests satisfied and is a key to success in the hospitality industry. The findings of this study are also aligned with Wu and Liang (2009) who surveyed luxury hotel restaurant customers and demonstrated that before COVID-19, a high-quality service had a positive effect on guests' satisfaction. The current study found that when guests received great personal service

from hotels, they liked to recommend those hotels to others. After the reopening, guests still cared about service as an important factor; however, guests are expecting different service such as expecting self-service technologies to avoid human contact (Kim et al., 2021; Shin et al., 2020). Thus, this study's findings indicated that after the reopening from COVID-19, service had a great influence on guests to recommend hotels to others.

Third, this study indicates that the room influences guests to recommend hotels to others before COVID-19 and after the reopening. Bitner (1992) mentioned that the physical environment affects people's behavior. This study's findings are aligned with those of other studies conducted before COVID-19 (Baek & Ok, 2017; Bitner, 1992; Kuang & Zhang, 2017; Lin, 2004; Obinwanne & Alozie, 2019) which found that guests care about physical environment, room styles, conditions, and designs before they book hotels. The current study is also consistent with the finding of a previous study which revealed that guests like to experience updated hotel rooms and facilities after the reopening (Jiang & Wen, 2020). More importantly, this is the first study which revealed that after the reopening, rooms influence guests to recommend hotels more significantly than before COVID-19.

Fourth, this study demonstrates that cleanliness is an important factor for guests to recommend hotels before COVID-19 and after the reopening. The finding is consistent with previous studies (Lockyer, 2005; Zemke et al., 2015) that were conducted before COVID-19, and cleanliness affected guests booking decisions. Kim et al. (2005) interviewed hotel managers and found that after the SARS pandemic, hotel occupancy dropped, and guests started to pay extra attention to cleanliness. Other studies that were conducted during COVID-19, (Atadil & Lu ,2021; Sharma & Kaushik, 2021; Wachyuni & Kusumaningrum, 2020) also indicated that COVID-19 influenced guests to expect rooms and facilities to be extra clean and is the major

criteria that affected their hotel recommendation. However, this study result was different than previous studies. The current study demonstrates that the factor cleanliness was less important after the reopening. This study believes that before COVID-19, not every integrated resort was kept clean to the same degree, but after the reopening all hotels and restaurants were sanitized as mandated by local, state and federal orders (Levtchenko, 2020). Therefore, this is the first study which revealed that after the reopening, cleanliness influenced guests to recommend hotels less than before COVID-19.

Lastly, this current study found that before the COVID-19 pandemic, the location factor affected guests' hotel recommendations, but after the reopening, it was not a significant factor anymore. This study's finding aligns with other previous studies (Latinopoulos, 2020; Pan, 2002; Yang et al., 2018) which demonstrated that before COVID-19, guests considered location before they made booking decisions because they cared about public facilities, convenience, accessibility. Latinopoulos (2020) reviewed 56 hotels' online reviews in Thessaloniki and found that location was a significant factor that affects hotel price and hotel rating. However, the current study revealed, after the reopening from COVID-19, location is not an important factor anymore. Guests do not care about public facilities that much because they are still afraid of taking public transportation (Huang et al., 2020). Thus, after the reopening from COVID-19, location is not a significant factor that is affecting hotel recommendations.

Practical Implications

Previous studies and this study defined that the COVID-19 pandemic dramatically changed the hospitality industry (Wang et al., 2021). Also, after the reopening, guests considered factors affecting hotel recommendations differently compared to before the COVID-19 pandemic. This study provided helpful practical implications. After the reopening from COVID-

19 pandemic, when hotel managements wanted to attract guests and receive recommendations, they had to put extra effort into providing a good value, providing exceptional service, updating rooms, and maintaining cleanliness.

First, the findings implied that after the reopening from COVID-19, value was more important for guests when recommending hotels to others compared to before COVID-19. Hotel managers need to understand that value takes a critical role when guests recommend hotels to others. Therefore, hotels need to keep seeking ideas to ensure guests feel that hotel stays are valuable. During COVID-19, providing a safety kit that includes a sanitizer and a mask might be one of the ways to make guests think the hotel stay was valuable. This is because, even though their hotel stays and service are fleeting and invisible after the visit, amenities are a product that is visible. With a safety kit, guests will remember their hotel stay and possibly recommend hotels to others. Therefore, to receive guests' recommendations, it is essential to provide good service and facilities at a valuable price.

Second, before COVID-19 and after the reopening, guests scored service as the second most important factor. The findings indicate that hotel managers should re-evaluate their service quality and discover new ways to provide exceptional services such as adopting new technologies. Especially in the hospitality industry, hotels need to prove that they are providing safe services; after the reopening from COVID-19, some hotels adopted robot staff or AI services to keep providing contactless services (Shin et al., 2020). Before the COVID-19 pandemic, guests used to prefer human staff service rather than robot staff services, but after the reopening from COVID-19, results changed to the opposite (Kim et al., 2021). They changed because robot staff provided contactless services and kept a social distance. At the same time, human staff may spread viruses while robot staff do not take risk of contagion (Kim et al., 2021).

Therefore, hotel managers need to have an open mind regarding adopting new technologies and to ensure guests are satisfied. Once they are satisfied with services and feel safe, they will recommend hotels to others.

Third, the current study's findings suggest that hotel managers need to keep updating their rooms. During COVID-19, many people were not able to travel, and now their expectations about hotel rooms have been increased. Guests expect that hotels remodeled rooms while they were closed entirely for a few months (Jiang & Wen, 2020; Miao et al., 2021). Some hotels have been updating their rooms to attract more guests. For example, they started to update their floors to hard floors instead of carpets because hardwoods can keep rooms cleaner than carpets (Doherty, 2021). However, most hotels lost their money during the closure and could not afford to remodel rooms. Hotel managers should think about updating rooms because it is part of the investment. They need to purchase some features and add them to rooms. One example is installing air purifiers in rooms which helps eliminate harmful odors (Chan et al., 2015). After the reopening from the COVID-19 pandemic, the room factor was still an important factor that affected guests to recommend hotels to others; therefore, hotel managers need to make sure to review their rooms and update them if needed.

Fourth, the findings suggest that hotel operators need to re-evaluate the cleaning procedures with different standard points. It is important to check if housekeeping is following the new procedures or if they are not following them well. Guests were worried about visiting hotels because there were many high touchpoints, and COVID-19 is transmitted from person to person. However, guests believe that due to states and federal orders, hotels are following specific cleaning procedures to keep them safe. Therefore, housekeeping managers should train

housekeeping teams well to follow the cleaning procedures, sanitize public areas, and clean rooms. It might be a good idea to adopt robot housekeeping to decrease staff and guests contact.

Lastly, from the findings, hotel operators know that after the reopening from COVID-19, location is not a significant factor that affects hotel recommendations. People get COVID-19 from human contact; therefore, they like to avoid public transportation. It would be a great idea for hotels to rent bicycles or scooters to guests. Moreover, after the reopening, numerous hotels advertised their rooms as offices to attract local people. Since many people worked from home, hotels attracted them to work in hotel rooms. Therefore, these people might not care about hotel location because they visit hotels to work. Since the location factor does not significantly affect guests' hotel recommendations, it is a great change for some hotels that are not located in central parts of a city. These hotels need to rent office products and provide high-quality room services instead of worry about the hotel location.

Limitations and Future Research

Every study has limitations and providing limitations could assist other studies to be more improved. This section provides four main limitations for this study, and it recommends future research to improve followings.

First, the study collected the data from one integrated resort that was located in western United States, and surveys were completed in June 2019 and June 2021. Each country faced the COVID-19 pandemic differently with various regulations (Barti et al., 2020); thus, the findings of this study cannot generalize for all hotels that are in other countries or cities. The future study should recruit respondents who stayed in other resorts in different countries. This will improve the study result to be more generalizable and not just a particular country.

Second, the survey only included six questions that were simple and did not ask in-depth questions. Since the survey was too simple, there is a possibility that some respondents were confused about questions. There could be many other factors that affect guests to book or recommend hotels to others beyond these five factors which were cleanliness, location, room, service, and value. This study's survey asked respondents to measure each factor between 1 through 5 stars. Since it did not use open-ended questions, respondents did not get an opportunity to mention other factors that are affecting hotel recommendations before the COVID-19 pandemic and after the reopening besides five predictors that were mentioned. The future study should ask questions differently such as using open-ended questions or asking more questions in detail to discover factors that are affecting hotel recommendations before COVID-19 and after the reopening instead of asking respondents to rate stars for predictors.

Third, this study only focused on the COVID-19 pandemic, and different pandemics can cause different effects on the hospitality industry. Therefore, this study cannot determine that guests would care about value, service, room, and cleanliness as essential factors to recommend hotels to others after the reopening from the pandemic. Moreover, at the time of writing, some countries are still struggling due to a high number of COVID-19 cases and yet to say that the COVID-19 pandemic has been over in the United States. This study discovered the factors affecting hotel recommendations after the reopening from the COVID-19 pandemic but not after the COVID-19 pandemic.

Fourth, initially, 222 respondents responded to the survey for June 2019, and 271 guests completed the survey for June 2021. However, the study had to remove 53 responses for June 2019 and 59 responses for June 2021 due to the same pattern responses. This could cause errors in the result. The future study should utilize rank order questions if they want to find out which

importance influences the hotel recommendations the most. This helps respondents to decide which factors are affecting them in order and prevents them from responding to the same patterns.

Summary

This study discovered the factors affecting hotel recommendations before COVID-19 and after the reopening from COVID-19. After data analysis, this study concluded that before the COVID-19 pandemic, value, service, cleanliness, room, and location in that order were significant factors that affected hotel recommendations. However, after the reopening from COVID-19, the order of importance was changed to value, service, room, and cleanliness. In addition, value, service, and room influence on guests' willingness to recommend hotels stronger after the reopening from the COVID-19 pandemic. On the other hand, cleanliness was less important, and location was not a significant factor. At the time of the writing, COVID-19 is still an ongoing crisis; therefore, it suggests hotel managers focus on value, service, room, and cleanliness to enhance guests' satisfaction and gain recommendations from them. COVID-19 brought numerous changes into the hospitality industry; however, if hotel management understands the status quote and guests' preferences, they can overcome the hardship.

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Hotel Operations Manager July 2019 - Aug 2020
Mandalay Bay Resort & Casino Las Vegas, Nevada

Front Desk Lead Oct 2018 - July 2019
Excalibur Hotel & Casino Las Vegas, Nevada

Front Desk Agent April 2017 - Sept 2018
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