

REVVING UP REVENUE: UNLOCKING THE POWER OF CANCELLATION
POLICIES ON BOOKING INTENTIONS

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Over the years, last-minute cancellations and no-shows have presented difficulties for the hospitality sector, negatively affecting hotel operations and revenue. The cancellation policies of hotels have changed significantly as a result. These rules have been modified to act as “price fences” as a result of revenue management strategies used in the hotel industry. This study aims to find out how various cancellation policies impact consumers’ perceptions of risk and intent to reserve hotel rooms at various times. The study provides insight into the factors that affect consumer behavior and choices for hospitality goods and services by examining these elements. The results of the study offer some understanding into how hotels and other hospitality businesses can use cancellation policies to customize their marketing strategies to meet consumer needs and preferences while successfully managing revenue and profitability.

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
LIST OF TABLES AND FIGURES.....	vii
CHAPTER 1. INTRODUCTION	1
1.1 Problem Statement	1
1.2 Significance of the Study	4
1.3 Purpose of the Study	5
CHAPTER 2. LITERATURE REVIEW	7
2.1 Revenue Management.....	7
2.1.1 Origin of Revenue Management.....	7
2.1.2 Revenue Management in the Hospitality Industry.....	7
2.1.3 The Applications of Revenue Management in Hotel Industry	9
2.2 Cancellation Policies.....	11
2.2.1 Backgrounds	11
2.2.2 Factors Affecting Cancellations.....	12
2.3 Construal Level Theory and Temporal Distance	14
2.4 Booking Intention	16
2.5 Perceived Risk	17
CHAPTER 3. METHODOLOGY	21
3.1 Design and Participants.....	21
3.2 Procedure	22
3.3 Measures	23
3.4 Manipulation Check.....	24
CHAPTER 4. RESULT	25
4.1 Sample Profile.....	25
4.2 Reliability Test.....	25
4.3 Hypothesis Testing.....	26
CHAPTER 5. DISCUSSION AND IMPLICATIONS.....	29

5.1	Discussion	29
5.2	Theoretical and Practical Implications.....	30
5.3	Limitations and Future Studies	31
APPENDIX: CONSTRUCTS AND MEASUREMENT ITEMS.....		33
REFERENCES		35

LIST OF TABLES AND FIGURES

	Page
Tables	
Table 1: ANOVA results	27
Table 2: Moderated serial mediation results	28
Figures	
Figure 1: Conceptual model.....	20
Figure 2: Experimental stimuli examples for cancellation policy: refundable vs. non-refundable	23
Figure 3: Interaction plot between cancellation policy and temporal distance.....	27

CHAPTER 1

INTRODUCTION

1.1 Problem Statement

Bookings, which are also known as advanced reservations, are a fundamental aspect of hotel management when it comes to managing supply and demand. Customers typically make reservations in advance to ensure that they have a room available to them, given the limited number of rooms that are usually available (Chen & Xie, 2013; Lee, 2018; Smith et al., 2015). By allowing customers to make advanced reservations, hotels can balance supply and demand, which can help to increase revenue and profitability. It is for this reason that advanced reservations are often considered to be the best indicator of how well a hotel will perform in the future (Smith et al., 2015).

In hotel revenue management, bookings serve to reflect a range of factors such as room occupancy, arrivals, price sensitivity, and cancellations, among others. These factors are crucial when it comes to forecasting bookings, which is a key aspect of hotel revenue management. Based on booking forecasts, hotel operators can staff employees adequately and ensure they have enough inventory available to provide the best possible service to their guests. Therefore, bookings are a primary tool for forecasting a hotel's performance (Chen & Xie, 2013; Lee, 2018; Smith et al., 2015). Additionally, managing bookings ensures that hotel managers can better manage cash flow and ensure that they have enough funds to invest in other facilities. However, despite the importance of advanced reservations, many things can happen between the booking window and arrivals, such as cancellations. Cancellations occur for various reasons, including illness, bad weather, natural disasters, calendar changes, or other unclear reasons. For example, during the COVID-19 pandemic, numerous issues arose for travelers, leading to flight cancellations due to

travel bans imposed by other countries or stay-home orders (Business Insider, 2020).

Despite the importance of advanced reservations, cancellations can have a significant impact on a hotel's revenue and occupancy. During the COVID-19 pandemic, many travelers canceled their bookings due to travel restrictions, causing a significant loss of revenue for hotels. Therefore, it is crucial for hotels to have a cancellation policy that is fair to both guests and the hotel. A well-designed cancellation policy can help minimize the impact of cancellations on a hotel's performance. By doing so, hotels can remain profitable and ensure that they provide the best possible service to their guests.

Recently, the hotel industry witnessed a 15% booking revenue loss due to cancellations in 2019. Increased online bookings and the global pandemic in recent years led to more frequent booking cancellations, resulting in further profit losses. The loss had risen by 20% due to cancellations in 2022, which was a 33% increase from 2019 (Avvio Blog, 2022). It is the case that customers cancel reservations in the last minute, which has a significant impact on hospitality business operations (Chen et al., 2011). Cancellations can be detrimental to hotel revenues. When guests cancel their reservations at the last minute, it is harder for hotels to fill those empty rooms, especially since hospitality products are perishable. This not only impacts hotels' revenues due to the loss of those particular rooms but also creates a new trend like the "domino effect" on future bookings. Although there are several circumstances for hotels to waive cancellation fees, the considerable loss of revenue is caused by last-minute cancellations and no-shows (Chen et al., 2011), especially when it comes to "deal-seeking" customers. For example, it costs \$0 for hotel guests to cancel their existing reservations and rebook with cheaper rates at the last minute when they find a better deal (Chen & Schwartz, 2013; Schwartz, 2012). 51% of hotel customers think a cancellation policy is crucial when booking a hotel for a leisure trip, whereas 53% of them agree

with the importance of a cancellation policy when they reserve rooms for a business trip (Statista.com., 2019). Resultingly, several hotel chains have started implementing more restrictive cancellation policies by not waiving charges for last-minute cancellation (Riasi et al., 2019).

Hotels have begun enforcing stricter cancellation policies in an effort to lessen the impact of cancellations on their revenue. When making a reservation, some hotels ask for a deposit or full payment, which can deter last-minute cancellations. Others offer non-refundable rates or charge a fee if a reservation is canceled within a specific period of time. Indeed, Marriott started tightening their free cancellation window in June 2017 by allowing new bookings to cancel for free for 48 hours and 72 hours for locations with high demand before arrival (Genter, 2017; White, 2017). According to Marriott's Updated Statement on Novel Coronavirus (COVID-19) (2020), the company significantly loosens the cancellation policy post-COVID-19 by shortening it from 48 to 24 hours before the scheduled arrival date. Similarly, Hilton began making stricter cancellation policies by applying new cancellation policies varying from 48 hours for most locations to 72 hours for high-demand locations in 2017 (McNutt, 2017a; White, 2017) but modifying it to 24 hours post-COVID-19 (COVID-19 hotel reopening FAQs, 2020). Following Marriott and Hilton, IHG made its cancellation policies stricter by allowing fundamental changes or cancellations up to 24 hours before the arrival date (McNutt, 2017b; Schlapping, 2017), and remained the same till now (CORONAVIRUS (COVID-19): Supporting your well-being and travel plans, 2021). Hyatt has had the beginning point of tightening the cancellation window since 2017 by allowing 24-hour cancellation policies for Hyatt members and 48 hours for non-Hyatt members (Dylan, 2017; Mest, 2018). Hyatt's cancellation policies nowadays are similar but have minor changes based on locations (Covid-19 travel updates | Hyatt Hotels & Resorts, 2022).

1.2 Significance of the Study

Long ago, airlines launched a policy that allowed their customers to cancel their advanced bookings at any time before departure or not to show up without penalty (Aydin et al., 2013). This policy brought over adverse outcomes as it was hard for airline firms to fill up canceled seats before departures. Similarly, hotel operators might not have enough time to sell the unsold inventory to other customers, especially with last-minute cancellations and no-shows (Xie & Gerstner, 2007). Due to this issue, many airlines, hotels, and rental car agencies have imposed charges on those who have reservations but fail to show up. Cancellation fees reflect the most vigorous disagreement between hospitality firms and their customers (Lee et al., 2021). These penalties are varied from 10% of the original price to 100% of non-refundable bookings (Phillips, 2004; Talluri & van Ryzin, 2004). Although presumptive hotel guests can cancel their bookings at a low cost, it is not ideal for hotel operators to deal with as it carries potential revenue loss (Chen & Xie, 2013). An increase in the rate of cancellation rates recently due to guests' adopting real-time booking technology works against hotel operators' revenue management strategies (Sawier, 2019).

Previous researchers found that hotels utilize a combination of overbooking and cancellation policies to reduce the risks related to cancellations and no-shows (Chen, 2016; Chen et al., 2011; Ivanov, 2014; Mehrotra & Ruttley, 2016; Noone & Lee, 2011; Phillips, 2005; Smith et al., 2015; van Ryzin & Talluri, 2005). The costs associated with overbookings are determined by considering the various levels of overbooking for each type of room and the actual number of cancellations, no-shows, and early departures (Ivanov, 2014). Even though effective bookings can help lessen the adverse effects of no-shows, a reasonable cancellation policy can result in fewer no-shows, lower costs, and greater resource utilization (Huang & Zuniga, 2014). With cancellation

options, customers are provided the benefits of reserving rooms in advance and adjusting their plans based on personal preferences (van Ryzin & Talluri, 2015). However, other factors need to be considered to manage cancellations and boost booking intentions effectively, and there is still a lack of empirical research regarding the topic in academia.

1.3 Purpose of the Study

Perceived risk is an essential factor that determines how consumers perceive the potential loss concerning their decision to purchase travel products either online or offline (Lee & Fernando, 2015). Based on their perceived risk and booking preferences, consumers may choose different booking options, such as non-refundable or refundable bookings. However, there are other factors that affect consumers' preferences, such as the temporal distance, which indicates the time between the reservation and travel dates (Trope & Liberman, 2010). When it comes to consumers' intention to book hospitality products, several factors influence their decision-making. These factors include cancellation policy, temporal distance, and perceived risks towards booking intentions. For instance, a consumer may be willing to book a non-refundable booking option if the temporal distance before the travel date is shorter, as they may feel more confident that their plans will not change. On the other hand, if the temporal distance is longer, a consumer may choose a refundable booking option to have more flexibility in case their plans change. Moreover, consumers' perceived risks towards booking intentions can also influence their intention to book hospitality products. For example, a consumer may perceive a higher risk associated with booking a hotel in an unfamiliar country, which may lead them to choose a more refundable booking option. The objective of this study is to investigate the multitude of factors that have an impact on consumers' decision-making process when choosing accommodation in the hospitality industry. This research scrutinizes factors such as pricing, location, and amenities to offer insightful observations for

businesses operating in the hospitality industry. By utilizing these insights, businesses can customize their booking options to cater to the unique needs and want of their customers, which can ultimately enhance customer satisfaction and loyalty. In summary, this research underscores the significance of comprehending consumer behavior in the hospitality industry and offers practical recommendations for businesses looking to enhance their booking options. Given the above factors, this study aims to explore the effects of cancellation policy, temporal distance, and perceived risk on the intentions to purchase hospitality products.

CHAPTER 2

LITERATURE REVIEW

2.1 Revenue Management

2.1.1 Origin of Revenue Management

The airline industry is where Revenue Management (RM) got its start. President Jimmy Carter signed the Airline Deregulation Act in 1978, which resulted in a reduction in the U.S. Civil Aviation Board's authority over airline pricing (Talluri & Van Ryzin, 2004). This act not only helped to create a robust competition environment for numerous air travel businesses (Fyall et al., 2013), but it also allowed established carriers to alter prices without the board's consent (Talluri & Van Ryzin, 2004). Price cutting and weapons became the most quickly implemented, enabling businesses to maintain market share points (Fyall et al., 2013). The idea of "Revenue" formally emerged and gained prominence in the airline industry in order to avoid a price war and strike a balance between selling seats at the highest price and utilizing the maximum amount of available capacity (Talluri & Van Ryzin, 2004).

Revenue management (RM) is utilized in the hospitality industry by leveraging the price elasticity of different consumer segments to maximize revenues (Ivanov & Zhechev, 2012). To maximize revenue per customer, it is essential to balance supply and demand, which is previously known as yield management (Dunn & Brooks, 1990; Upchurch et al., 2002). According to Kimes (1989), yield management was first used in the airline industry by measuring flying passengers per mile. Later, yield management was also found to have profound impacts on capacity-constrained industries (Heo & Lee, 2010).

2.1.2 Revenue Management in the Hospitality Industry

Revenue management (RM), which has its roots in the aviation sector, is now widely used

by a variety of businesses, including hotels, tour operators, shipping companies, car rental agencies, and many more (Kimms & Klein, 2007). There are some similarities between the airline and hotel industries, such as relatively fixed capacities, perishable inventories, low sales costs, or segmented demands based on customer type or market segments (Noon et al., 2003). Perishable service businesses have used RM extensively to handle inventories and generate more profits (Cetin et al., 2016; Guadix et al., 2010; Kimes & Wirtz, 2003). Both airlines and hotels sell perishable products. Once seats or rooms are sold in advance, they cannot be recovered or sold for a few days if they are not sold for a specific flight or night (Parasuraman et al., 1988). In other words, since hospitality products are perishable, it is crucial to sell any remaining goods and services before the arrival or the plane's departure dates (Sahay, 2007). Initially, airline companies used RM to predict demand and set prices (Kimes, 1989). However, it has since been expanded to include the hospitality sector, which includes lodging, dining, spas, and banquet services (Choi & Kimes, 2002; Kimes, 1999). The hospitality industry became one of the first to utilize RM techniques (Klein et al., 2020). Marriott International was the airline's first revenue management adoption (Cross et al., 2011).

According to Shoemaker and Gorin (2008), one of the most extensively researched topics in the hospitality industry is revenue management (RM). In the late 1980s and early 1990s, hoteliers became aware of how RM primarily got involved in room-related functions (Kimes, 2016). Since the middle of the 1990s, RM has been emerging in different hotel departments, such as moving the RM function into the sales and marketing department, although it could also be associated with the reservation department or front office department (Kimes, 2016). To improve hotel performance daily and maximize potential company revenues, hotel operators apply RM principles by balancing supply and demand (Tanpanyawat, 2011). Shoemaker (2005) also found

that hotels used to offer the same price to everyone, then they began using RM techniques by forecasting demand to proactively price services to maximize revenue. Since the early 1990s, several big companies in the hospitality industry, such as Hilton, Holiday Inn, Marriott, and Sheraton, have undergone significant transformation by upgrading from simple revenue management systems to integrated electronic property management systems (Kimes, 2003). It concludes that the implementation of revenue management systems can be seen to be imperative for the expansion of the hospitality industry, which helps to enhance its overall contribution to the global economy.

2.1.3 The Applications of Revenue Management in Hotel Industry

The RM strategy is used in the hotel industry to maximize revenue or yield by allocating the right amount of capacity to the right customer segment at the right price (Kimes, 1989). As hotel managers try to boost occupancy rates, revenue, and profits, RM has attracted a lot of attention recently (Bayoumi et al., 2013; Wilson et al., 2015). The quantity control approach and the dynamic pricing approach are the two main categories of hotel revenue systems (Aziz et al., 2011; Ingold et al., 2000; van Ryzin & Talluri, 2005). The quantity control approach divides rooms into different categories based on rates, room types, and length of stay. In order to maximize profits, the number of rooms allocated to each category is dynamically managed based on the fixed price. (Bayoumi et al., 2013).

On the other hand, the dynamic pricing approach is conducted by grouping similar room types into room classes. The prices of these room classes continuously change over time in response to changes in occupancy and availability (Bayoumi et al., 2013). By grouping similar room types together, the forecast will be more accurate (Bayoumi et al., 2013). Hotel rooms are perishable assets, so hotel operators seek to increase their revenues by utilizing a variety of tactics

to reach ideal dynamic rates (Abrate et al., 2012). Customers' online feedback and previous records of demand and room occupancy would also help hotels better understand customers' demands and future forecasting demands (Xu et al., 2019).

However, RM can be risky and complicated. For instance, inaccurate demand predictions could eventually lead hotels to a financial loss due to overbooked or unsold rooms (Law, 2004). Stayover is another case that also requests an extension of the reservation during the service period, which could result in similar problems to the network RM problem with overbooking and no-shows (Aydin & Birbil, 2018). As time passes through the booking horizon, the limit of overbookings could alter due to re-optimization. Ignoring the dynamics of cancellations and arrivals over time, hotel operators determine an overbooking limit based on the maximum number of reservations they are willing to take (Klein et al., 2020). In hotel revenue management, overbooking is essential to hedge against cancellations (Klein et al., 2020). Due to the inability to sell the unsold products to other customers before arrival or departure, the loss from cancellations is incredibly substantial in cases of last-minute cancellations and no-shows (Talluri & Van Ryzin, 2004; Tranter et al., 2008). The cumulative loss from cancellations and no-shows can have a detrimental effect on revenues; thus, hotel operators take different revenue management practices to minimize cancellations' negative impact on revenues (Chen et al., 2013). The effectiveness of revenue management can be optimized by having accurate forecasts, but cancellations are one of the significant reasons that scale down the accuracy of demand forecasts (Riasi et al., 2018). On the other hand, revenues can be increased with the help of cancellation policies by reselling early canceled reservations to someone else (Chen et al., 2013). Therefore, it is crucial for successful revenue management to accurately measure effective hotel occupancy with the varying hotel demand and the possibility of cancellations (Haensel & Koole, 2011).

2.2 Cancellation Policies

2.2.1 Backgrounds

Reservations canceled by consumers before the time of service are known as cancellations (Phillips, 2004; van Ryzin & Talluri, 2005). No-show bookings are for those who fail to arrive at the time of service without providing any prior notice (van Ryzin & Talluri, 2005). Hotel operators take more reservations than they can accommodate to offset the overbooking revenue loss (Noone & Lee, 2011; van Ryzin & Talluri, 2005). When cancellations or no-shows occur, hotels have another chance to make up for those issues thanks to overbooking (Chen, 2016). However, overbooking can also cause problems in the absence of cancellations, as there is always a booking limit for any suppliers. Due to overbooking, hotels can refuse customer service, which may bring over complaints and negatively impact the development of social reputation (Guo et al., 2016). On the other hand, if the cancellation rate is not considered, the anticipated demand could not be accurate. Subtracting the number of no-shows and cancellations from the total number of requests yields the net demand (Morales & Wang, 2010). To determine net demand, bookings cancellation forecasting is necessary (Lemke et al., 2013; van Ryzin & Talluri, 2005). Cancellations are found to be a crucial component of hotel revenue management since they have a great impact on room reservation systems (Sánchez-Medina & Eleazar, 2020). In addition, it also occurs to another negative result is that hotel is obligated to compensate customers, including reallocation costs (Noon & Lee, 2011). This consequently leads to the loss of future revenue as it is possible that customers would not come back or look for other alternatives. An obvious solution to the overbooking matter is having cancellation and no-show penalties, which helps reduce cancellations, no-shows, and revenue risk (Chen, 2016). Hotels are required to honor reservations and have rooms available for customers who expect to arrive. Customers must also pay

cancellation fees in return if they cannot make it (Smith et al., 2015; van Ryzin & Talluri, 2005).

2.2.2 Factors Affecting Cancellations

Previous research on how hotel guests make reservations has shown that cancellation policies do not have a significant influence on customer decisions, but deadlines do. (Chen et al., 2011). In some circumstances, guests consider cancellation policies as "hidden traps" because it increases their travel costs from their unwariness (Perkins, 2004). Moreover, those who make a reservation in advance, but cancel afterward, believe that they are not obligated to pay as they did not utilize the service (van Ryzin & Talluri, 2005). Prior researchers found that it is an increase in a number of "deal-seeking" customers who cancel last-minute reservations in order to find the same or a similar product or service at a lower price (Chen & Xie, 2013; Chen et al., 2011). The "Book and Search" strategy is increasingly desirable in consumer booking behaviors but undesirable for the industry (Duetto, 2016; Sawier, 2019). Because of selling perishable products, hotels cannot prevent revenue losses without charging cancellation penalties (Ivanov et al., 2015). Therefore, cancellation policies are found to help decrease the number of cancellations and accurate forecasting (Zakhary et al., 2011). However, hotels' overall performance gets negatively impacted caused by the rising rate of cancellation activity, which has distorted data related to reservations, including pick-ups, reservation regret statistics, conversion details, and demand forecasts (Pederson, 2018).

Cancellation policies can potentially reduce and prevent undesirable cancellation behaviors in the hotel industry. The purpose of cancellation policies is to lessen the negative impact of cancellations on hotels' revenue and profitability. However, an unanswered question has been raised: Which cancellation policy will result in the best financial contribution? Depending on consumers' booking preferences, they may choose non-refundable bookings at a lower cost or

refundable bookings at a premium price. Restrictive cancellation policies are “non-refundable” policies that may result in declining bookings and revenue. Restrictive cancellations are conducted by having guarantee methods for reservations in the prevention of cancellations or no-shows to minimize revenue loss (António, 2019). This is because of customers' lower propensity to make reservations when strict cancellation policies are applied (Chen et al., 2011; Park & Jang, 2014; Smith et al., 2015). Although it depends on each hotel's booking policy, the cancellation penalty can cost "anywhere between one night's rate (plus tax) to the entire cost of reserved stay" (Stellin, 2003). Hotels can make cancellation policies stricter by charging higher penalties, but they can lose customers to competitors like Airbnb due to their affordable rates (Chen & Xie, 2017; Guttentag, 2015). Adam Anderson, the managing director of Industry Relations at Expedia, has stated that refundable booking cancellation rates are seven times higher than non-refundable ones (Ogul, 2015). Another type of cancellation policy is a moderate cancellation policy, which provides a flexible cancellation policy with a window of 1-3 days before the check-in date and allows customers to cancel their reservation without paying any penalty within that booking window (Riasi et al., 2019). Compared to the restrictive cancellation policy, this policy has longer cancellation windows and is more lenient to customers. According to Altin et al. (2022), moderate cancellation policies are more favorable to both hotel operators and consumers as it helps to improve financial performance better than strict or loosened cancellation policies. Implementing effective cancellation policies can help to increase consumers' booking intentions which can benefit growing revenue and profitability. Similar to the airline industry, more and more hotels are adjusting their cancellation penalties to act as “price fences”, in which higher room rates are charged with more lenient cancellation policies, or discounted room rates are applied with stricter cancellation terms (Tsai & Chen, 2019). Moderate cancellation policies are still the most favorable

for consumers (Altin et al., 2022). However, customers' cancellation policy preferences vary on different hotels as most large, and branded hotels allow their properties to decide their own cancellation policies (Altin et al., 2022). Therefore, this study aims to find out the most effective cancellation policies for branded hotels. The upcoming section will present the framework and hypotheses and discuss the empirical tests conducted on these hypotheses.

2.3 Construal Level Theory and Temporal Distance

Construal level theory (CLT) is a psychological framework that explores how the distance between a person and an object or event affects the mental representation of that object or event. According to Trope and Liberman (2010), the concept of psychological distance highlights the idea that people use varying levels of mental abstraction to understand different subjects or ideas. Therefore, when people think about something that is psychologically distant, they tend to use more abstract concepts, while they use more concrete concepts for things that are psychologically closer. For example, when thinking about a trip to a foreign country, people may use abstract concepts such as culture and customs, while when thinking about a trip to a nearby city, they may use more concrete concepts such as transportation and accommodation. This means that psychological distance can affect not only mental representation but also judgment and decision-making. Therefore, it is important to think about how psychological distance affects things when studying these processes. According to CLT, psychological distance can be composed of time, space, social distance, probability, or any other dimension that can be conceived as psychologically near or distant (Grazzini et al., 2018). Temporal distance, social distance, hypotheticality, and spatial distance are examples as dimensions of psychological distance, which are found to be independently relevant to consumer choice (Liberman et al., 2007). In accordance with CLT, different actions can lead to varying levels of abstraction (Grazzini et al., 2018). Low construal

level (concrete) specifies those who focus on peripheral and detailed aspects such as “how” people do things (Aggarawal & Zhao, 2015). By contrast, high construal level (abstract) reflects the tendency of processing information abstractly, and explaining the reasons of actions, such as “why” people do things (Aggarawal & Zhao, 2015). Consumers’ booking intention, thus, is seen to be affected by construal mindsets. According to Labroo and Lee (2006), consumers’ purchase or booking intentions are directly impacted by construal mindsets.

“Temporal distance” is one type of psychological distance, which is defined as the measurement of time between the perceiver’s present time and the target event (Bar-Anan et al., 2006). According to CLT, the temporal distance between the present and the future events affects how the events are mentally represented (Trope & Liberman, 2003). High-level construal of information pertaining to distant future events is more abstract, whereas low-level construal pertaining to near-future events is more concrete. A longer time interval (high-level construal) reflects that the booking date is further from the travel date, while a shorter time interval (low-level construal) indicates that the customer booked the travel product when the travel dates are relatively close (Liberman et al., 2002). In the context of hotel bookings, temporal distance plays a crucial role in shaping people's travel plans. Specifically, it refers to the time gap between the reservation and arrival dates. Previous researchers have explored how people's travel confidence varies with the temporal distance between their current situation and their planned travel date (Nussbaum et al., 2003). Interestingly, people tend to be more confident about their far-traveling plans than their near-traveling plans. This can be attributed to the fact that people have a greater sense of anticipation and excitement about far-off trips. As a result, the cancellation rate is found to be higher for reservations made further in advance when people have considerable time before the arrival date (Lee et al., 2021). This underscores the importance of considering the temporal

distance when making hotel reservations and can help hotels better anticipate cancellations and plan their inventory accordingly. This is because a longer time interval allows people to get more updated information along with forming the intention to change their behaviors (Kah et al., 2016). Moreover, customers must pay more cancellation fees when the arrival date closes. Therefore, an inverse relationship can be formed between the time interval to travel and the cancellation penalty.

2.4 Booking Intention

Buyers' conscious plan or intent to buy a product or service is defined as purchase intention (Spears & Singh, 2004). Therefore, consumers' intention to book a hotel room is referred as booking intentions. Previous researchers explore that one of the key factors of the behavioral intention dimensions is the concept of purchase intention (Ali, 2016; Amaro & Duarte, 2015; Hsu et al., 2018; Zeithaml et al., 1996). Consumers' intention to purchase a product or service is suggested to be a strong predictor of their overall behavioral intentions toward products or services. In other words, a key factor to affect consumers' decision to engage in certain behaviors related to a product or service is their willingness to purchase it (Ariffin et al., 2018). Nowadays, it is very crucial for business owners to understand the factors that impact consumers' purchasing intentions. By understanding consumers' intentions, businesses can better forecast their behaviors and design effective marketing strategies that resonate with their target audience. This can help businesses build strong customer relationships or increase their customer loyalty. Since the advent of the Internet, more prospective travelers are using hotel websites or online travel agencies to make hotel reservations (Buhalis & Law, 2008; Law & Wong, 2003; Lee & Morrison, 2010; Wong & Law, 2005; Xiang & Gretzel, 2010). The most globally used distribution channel for customers to buy any tourism-related products or services is the online channel. The best benefit consumers can get information related to hotels, room rates, or cancellation policies (Park et al., 2017). In other

words, consumers' intention to book relies on brief but strong messages that hotel managers put on the website. Hotel booking intentions bear a higher level of risks and uncertainty due to the influence of different factors such as scarcity or other customers' perceptions of the products (Reisinger et al., 2001; Sirakaya & Woodside, 2005). Previous literature shows the relationship between risk perceptions and hotel booking intention, which can be used to explore the role of risk perception in purchase intention, specifically the focus of tourist purchase intention (Ajzen, 1985; Pavlou, 2003). Moreover, these studies also demonstrate that when customers perceive any potential travel risks, it leads to their plan changes or booking behaviors, including cancellations. The adverse effects of perceived risks on online travel booking intentions can be lessened by implementing risk-reliever tools on travel websites, which can also improve booking intentions by reducing the impact of perceived risks (Lin et al., 2009). Safety perception and perceived risks are critical in predicting consumers' traveling behaviors. There are fluctuations in individuals' perceptions of safety and risk, which affects their decision-making, including destination choice, mode of transportation, lodgings, etc.

2.5 Perceived Risk

Risks are perceived as unknown when people lack knowledge (Bassarak et al., 2017). Perceived risks are defined as the evaluation of a customer's level of uncertainty before purchasing any products in terms of the potential nature and extent of the loss which may happen through the purchase and use of the products (Cox, 1967). Perceived risks are also referred to subjective beliefs held by consumers about the risks associated with achieving a desired outcome (Venkatraman, 1991). These beliefs may be impacted by various factors, such as personal experiences, cultural background, and social norms. Perceived risks are categorized into different dimensions, including performance risk, financial risk, psychological risk, social risk, and physical risks (Bart et al.,

2005; Laroche et al., 2004). For instance, there are several risks that customers may consider when deciding to make a reservation at a restaurant they have never been to before (Huang et al., 2020). Financial risk is one of these dangers, which appears when a customer is unsure of the cost of the food and worries that it might be too pricey. A further risk is the performance risk, which is connected to the caliber of the restaurant's service. A bad dining experience may result if the service is poor. Customers may also perceive a physical risk if they are concerned about getting sick and are unsure of the restaurant's cleanliness. Another element that might increase the overall perceived risk, where the consumer's sense of self is at risk, is a psychological risk. Consumers should be aware of all these factors before making a choice because the perceived risk is typically a combination of them. Only by assessing risks is a decision-maker aware of the outcomes before making a choice (Dowling, 1986).

Even though the degree of risk perceived in a particular behavior or circumstance may vary depending on the situation, an individual's tendency to find risk appealing or attractive tends to remain constant across various situations (Nicholson et al., 2005). Indeed, consumers have more likelihood to take risks when they believe they are knowledgeable in a given situation and avoid risks when they think they're less knowledgeable (Heath & Tversky, 1991). Therefore, hotel operators should consider different aspects to better comprehend the internal processes related to risk-taking and improve risk predictions (Bryant & Dunford, 2008). Thus, to increase hotel revenues, hotel operators associate cancellation policies with possible risks that consumers may have before booking rooms. The cancellation policy of a potential service provider should be taken into account. Choosing a free cancellation policy can also benefit consumers, as it offers some level of protection if unanticipated events might interfere with their travel plans. Customers can reduce the perceived risk of the purchase by paying a fee for this protection, which ultimately

raises their level of satisfaction with the service (Riasi et al., 2018).

A state of shortage in which the demand for products or services goes beyond their supply is defined as scarcity (Kemp & Bolle, 1999). A scarcity message is included as the desired stimulation to emphasize limited opportunities, such as limited availability (Lynn, 1991). In the hospitality industry, scarcity is considered one type of perceived risk that consumers have before finalizing their decision. The feelings of risk because of the inherent uncertainty are regarded as the cause of decision-making related to scarcity. According to Aggarwal et al. (2011), one example of perceived risk is the feeling of missing out on the chance to make a better decision in the future. When the scarcity appeal emphasizes competition among consumers, it is anticipated that powerful consumers who are more competitive will perceive lower levels of risk than powerless consumers (Huang et al., 2020). This is because strong consumers are less likely to feel threatened by competition and are more confident in their ability to compete. A sense of exclusivity and urgency may also be sparked by the scarcity appeal, which may further compel influential consumers to act. However, powerless consumers are more likely to feel threatened by competition and may interpret the allure of scarcity as a sign of possible loss or exclusion. Higher levels of perceived risk and lower engagement levels may result from this.

In order to encourage engagement and reduce perceived risk, it is crucial to take consumer power dynamics into account when designing scarcity appeals in online booking contexts. In hotel bookings, scarcity can be aligned with perceived risk when providing customers with information on hotel inventory and the perceived value of their products. Scarcity messages can be made under various forms with a scarcity principle, such as only 1 room left (Gabler & Reynolds, 2013). Previous researchers have already discussed how perceived risk has an influence on the hotel industry (Park et al., 2017; Song et al., 2019). Message credibility, booking lead time, and message

transparency differently perceived the effects of scarcity (Kim et al., 2020).

Based on the literature review, the following hypotheses are proposed:

H1: Cancellation policy and temporal distance have a significant interaction effect on perceived risk.

H2: Perceived risk will mediate the interaction effect of the cancellation policy and temporal distance on booking intention.

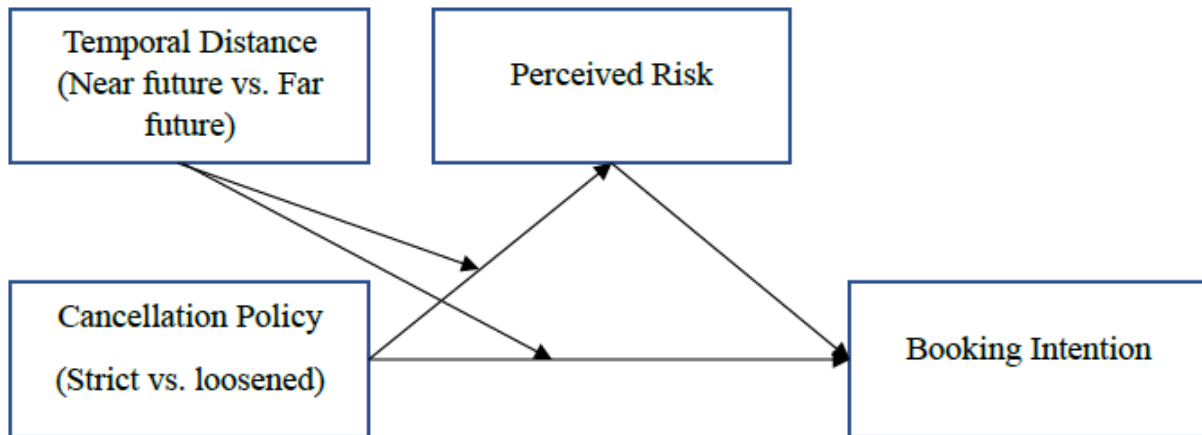


Figure 1: Conceptual model

CHAPTER 3

METHODOLOGY

3.1 Design and Participants

An experimental study was conducted to examine the hypothesized relationships between independent variables and dependent variables. The settings used for the study are online hotel bookings. Cancellation policy, temporal distance, and perceived risk associated with booking behavior are defined as independent variables, whereas booking intentions are explained as the dependent variable. When two or more manipulated independent variables are used in an experiment, a factorial design is used, which enables researchers to examine the effects of the independent variables in various contexts or with different subject types (Campbell & Stanley, 1963). For clarification, the cancellation policy for hotel online bookings is divided into two types: strict cancellation policies, which are money-related, such as non-refundable rates, and loosened cancellation policies, which are non-money-related, such as refundable rates. Temporal distance is described as the amount of time between the event time and the target event (Bar-Ana et al., 2006). Precisely, the near future and far future imply how far from the booking date to the arrival date. The independent variables may lead to the willingness to book. Study 1 will be used as a setting based for this study, followed by a 2 (Cancellation Policy: Strict vs. Loosened) x 2 (Temporal Distance: Near Future vs. Far Future) within the subject experiment. This study aims to examine which cancellation policies consumers choose when planning a leisure trip and how the window time between booking dates and arrival dates can influence their decision. To answer this question, the current study examines the effect of temporal distance and cancellation policies on booking intentions through perceived risk. This section describes this study's scenarios, subjects, stimuli and procedures, and measures.

3.2 Procedure

A total of 200 participants were chosen for the study from the Prolific panel data platform, which offers high-quality and diverse samples for experimental design studies (Palan & Schitter, 2018). After clicking on the Qualtrics link on Prolific, participants were first required to read the general information and guidelines related to the experiment and then asked to fill out an online informed consent form. Following that, the participants were randomly assigned to one of the four experimental conditions: (cancellation policies: strict vs. loosened) x (temporal distance: near future vs. far future). In these experimental conditions, the participants were asked to consider booking the following hotel room with a nightly room rate of \$179 at a branded hotel in the place they were going to travel after searching for hotel booking websites. The room rate from the scenario depended on the market price of the conducting experiment time. The temporal distance was manipulated by the booking window time. The participants were told to imagine booking their trips a week or six months in advance. The manipulation of the temporal distance (a week or six months) was adopted from previous research (Choi et al., 2019; Stephan et al., 2011). The hotel in the scenario provided two different cancellation options for the same room type and same room rates: (1) “Non-Refundable” with strict cancellation policies of non-refundable rates; and (2) “Refundable” with loosened cancellation policy of refundable rates (see Figure 2). Rooms from these two options also had the same amenities which include Air conditioning, high-speed internet, an in-room safe, a minibar, a TV, an iron, a coffee machine, and an accessible bathroom. In reality, hoteliers include more cancellation options depending on which booking options they offer such as the offers of “Deals & Packages,” but in order to avoid potential bias, only two booking options will be offered to respondents. An image of the room was adopted from the Marriott Official website and also provided to the participants with all information mentioned above. Next,

manipulation checks for the participants' attention were required; when there were a couple of questions associated with information provided from the image. Then, only participants who passed manipulation checks were moved to the next questions related to their preferences for cancellation policies and their risk perceptions including financial risk, psychological risk, and time risks. To sum up the survey, respondents were required to answer questions related to demographics.

Guest Room, 1 King



Non-Refundable

- Air conditioning
- Hi-speed internet
- In-room safe
- Minibar
- TV
- Iron/Coffee machine
- Accessible bathroom

\$179

Per night

SELECT

Guest Room, 1 King



Refundable

- Air conditioning
- Hi-speed internet
- In-room safe
- Minibar
- TV
- Iron/Coffee machine
- Accessible bathroom

\$179

Per night

SELECT

Figure 2: Experimental stimuli examples for cancellation policy: refundable vs. non-refundable

3.3 Measures

Initially, participants are requested to express their risk perceptions for cancellation policies. Based on the scenario, a Likert-type scale between 1-7 (1= strongly disagree, 7 = strongly agree) is used to measure and instruct participants to select how likely they are to choose the cancellation policy they are assigned from the scenario. According to Jang et al. (2021), some

respondents may have a tendency to choose the same response for every cancellation option if a Likert scale is utilized for finalizing booking decisions. This is because a Likert-type scale between 1-7 can create an equal possibility of choosing two different cancellation options. Moreover, in reality, there is only one choice made by consumers; therefore, this study will stimulate the real-life situation to measure participants' preferences accurately. Following that, booking intention measurement items were adopted from Kim et al. (2015). The measurements of perceived risks were adopted from Jang et al. (2022), Park and Tussyadiah (2017), and Park et al. (2004).

3.4 Manipulation Check

To ensure that participants have taken in the information given to them, manipulation checks are utilized in the research. In order to accomplish this, there are a few inquiries about the data shown in the image, and participants have to recall information about the room's details and the cancellation options to be able to answer these questions. Only those participants who provide accurate responses to these questions will be moved forward to the main questions for this study. The questions of manipulation checks include indicating the cancellation policy shown on the hotel website: (1) refundable rate, (2) non-refundable rate, and (3) I do not remember; and choosing when their stay would occur: (1) a week from now, (2) 6 months from now, and (3) I do not remember (Song et al., 2019).

CHAPTER 4

RESULT

4.1 Sample Profile

First, whoever failed the manipulation checks or provided incorrect responses to the attention check was not included in the final result of the analyses. A total of 102 out of 200 participants made up the final sample and was analyzed through One-way analysis of variance (ANOVA). Among 102 participants, 46.1% were male, 51% were female, and 2.9% were other. 73.5% were White, 10.8% were Black or African American, 1% were American Indian or Alaska Native, 10.8% were Asian, and the rest of 3.9% were other. The participants' ages ranged from 18 to over 60, with 26.5% from 18-25, 30.4% from 26-33, 19.6% from 34-41, 7.8% from 42-49, 8.8% from 42-49, and 6.9% over 60. All the participants were in high school or higher education, with 16.7% less than high school, 23.5% high school graduate, 21.6% some college, 9.8% having a 2-year degree, and 28.4% having a 4-year degree. Last but not least, annual household incomes vary from 0 to over \$100,000, when 16.7% made under \$25,000, 23.5% made between \$25,000 - \$49,999, 21.6% made between \$50,000 – 74,999, 9.8% made between \$75,000 - \$99,999 and 28.4% made \$100,000 or above.

4.2 Reliability Test

To test the reliability of the measures in this study, SPSS was used for the reliability analysis. From the collected data, the Cronbach's alpha index of this study varies from 0 to 1, with 0.91 for perceived risk and 0.96 for willingness to book. According to Hair et al. (2010), the acceptance of the Cronbach's alpha value is over 0.70. As shown in the data above, all the Cronbach's alpha values of the multi-item scale were accepted for each variable, as they ranged from 0.91 to 0.96.

4.3 Hypothesis Testing

A 2 x 2 (cancellation policy: strict vs. loosened) x (temporal distance: near future vs. far future) between-subjects ANOVA with perceived risk as the dependent variable was conducted. The main effect of cancellation policy ($F_{(1,98)} = 98.04$, $p < 0.001$) on perceived risk was significant, and temporal distance ($F_{(1,98)} = 1.75$, $p > 0.05$) on perceived risk was not significant. The data analysis results showed a significant interaction effect between cancellation policy and temporal distance on perceived risk ($F_{(1,98)} = 14.76$, $p < 0.001$). Therefore, Hypothesis 1 is supported (see Table 1). The results of the interaction effect between cancellation policy and temporal distance on perceived risk are presented in Figure 2. The cancellation policy effect on perceived risk was significant in the 6-month temporal distance condition.

To examine the proposed model to explain the joint effects of cancellation policy and temporal distance, a moderated mediation test was conducted using Process Model 8 (Hayes, 2017). The bootstrapping method with 95% confidence intervals revealed the indirect effect of perceived risk for each temporal distance. The results indicate that the conditional indirect effect of cancellation policy on booking intention through perceived risk was statistically significant (Indirect effect = - 1.05, BootCI = [- 1.73, - .47]). Specifically, a non-refundable rate can induce perceived risk, resulting in increased booking intention in both near future and far future temporal distance conditions (Indirect effect = - .65, BootCI = [- 1.16, - .24]) and (Indirect effect = - 1.700, BootCI = [- 2.52, - .98]), respectively (see Table 2). The indirect effect of the cancellation policy on booking intention is greater when the travel date is further from the travel date. Taken together, Hypothesis 2 was supported.

Table 1: ANOVA results

Source	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta Squared
Intercept	1069.083	1	1069.083	804.710	<.001	.891
Cancellation	98.043	1	98.043	73.798	<.001	.430
Temporal	1.753	1	1.753	1.319	.254	.013
Cancellation x Temporal	19.602	1	19.602	14.755	<.001	.131
Error	130.196	98	1.329			
Total	1498.750	102				
Corrected Total	245.748	101				

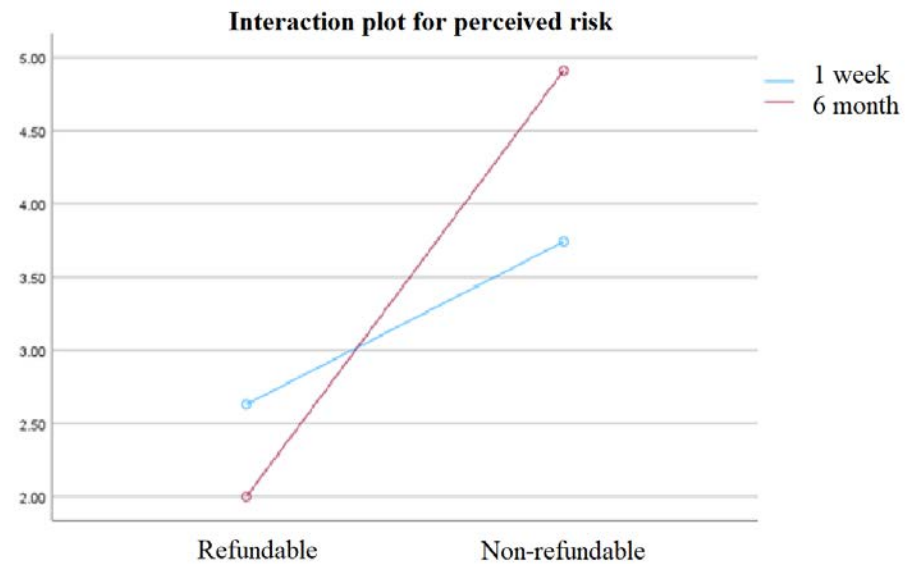


Figure 3: Interaction plot between cancellation policy and temporal distance

Table 2: Moderated serial mediation results

Indirect effects (CC→PR→BI) by temporal distance	Effect	95% Confidence Interval	
		Lower Limit	Upper Limit
Index of moderated mediation	-.1.05	-1.73	-.47
Low	-.65	-1.16	-.24
High	-1.70	-2.52	-.98

CC: Cancellation policy, PR: Perceived risk, BI: Booking intention

CHAPTER 5

DISCUSSION AND IMPLICATIONS

5.1 Discussion

This study provides valuable insights into the complex interplay between cancellation policies and booking window time and how they influence consumers' booking behavior. The research findings reveal that cancellation policies and temporal distance have a significant impact on the probability of consumers' booking. More specifically, the interaction between the two factors affects consumers' perceptions of risk, which ultimately influences their booking intention.

When presented with a non-refundable policy, consumers tend to perceive higher risks associated with booking, which is a natural response to the possibility of losing their money in the event of a cancellation. Interestingly, however, this increased perception of risk results in more bookings for both near and far future travel dates. It appears that the indirect effect of the cancellation policy on booking intention is more potent when the travel date is further away. This suggests that consumers' willingness to take a risk and commit to a non-refundable policy increases as the temporal distance from the travel date increases.

To elaborate on this point, it appears that when customers are presented with non-refundable options, they become more willing to book but also perceive a higher level of risk associated with their decision. This is an important finding that indicates that the perceived risk is a key factor in the booking decision-making process. It is important for businesses to take into account consumers' perceptions of risk when designing their booking policies. By doing so, businesses can tailor their policies to the specific needs and preferences of their customers and potentially increase their booking rates. Furthermore, this study highlights the importance of understanding the impact of temporal distance on consumers' booking behavior. It suggests that

consumers' perceptions of risk and their willingness to commit to a non-refundable policy are influenced by the temporal distance from the travel date. As such, businesses should consider offering different cancellation policies for different temporal distances to cater to the different needs and preferences of their customers.

In conclusion, this study provides valuable insights into the intricate relationship between cancellation policies, temporal distance, perceived risk, and booking behavior. By understanding these factors, businesses can design more effective booking policies that meet the specific needs and preferences of their customers, ultimately leading to increased booking rates and customer satisfaction.

5.2 Theoretical and Practical Implications

This study provides several significant theoretical and practical implications. First of all, the indirect impact of cancellation policies on booking intentions is stronger for further travel dates than nearer travel dates, which aligns with the construal level theory. This contends that consumers have more abstract thoughts about future events than they do about present events. For instance, customers may think more abstractly such as the overall experience of further future trips, rather than the specific details like the weather. As stated, they are more confident about their plans when the travel date is far away, which leads to more willingness to book for non-refundable rates. Higher perceived risks are observed because of this abstract thinking, which in turn can lead to a higher intention of booking. On the other hand, when making last-minute travel reservations, consumers might consider other factors such as weather or cancellation policy. Because of that, concrete thinking results in a higher chance of booking refundable options. By illustrating the important role of temporal distance in decision-making, the theoretical implications for the construal level theory are found to support the proposed hypotheses. Second, the impact of

cancellation policies on booking intentions is indirect and mediated by perceived risks. This suggests that hotel operators should take into account both financial and psychological impacts on consumers. Third, because of the indirect influence of cancellation policies on booking intention for further travel dates, hoteliers should consider providing more non-refundable rates for those targeted consumers. Creating targeted pricing strategies by offering non-refundable rates for future travel dates can help to increase bookings. Moreover, this can also help hotels to have better forecasting for upcoming arrivals, as well as doing inventory to fill up occupancy. Additionally, this can be seen implication for marketing strategies such as promoting travel for future dates. Finally, there is no difference between perceived risks and temporal distance, which reflects that the amount of time between booking and arrival dates does not significantly influences how people perceive risks. Post-COVID-19, consumers are more likely to care less about any potential disasters, as the industry already shows them how efficiently they worked to make it right for their customers.

5.3 Limitations and Future Studies

Although the findings of the study are expected to contribute to the current literature and the discipline theoretically and practically, several limitations and future research opportunities exist in this research. First, the study was performed based on hypothetical scenarios. Although these study settings are widely spread and commonly used in studies examining consumer behavior, there could be a gap between real consumer experiences and the experiment concerning the external validity. Therefore, future studies can consider implementing a field experiment to provide a more immersive hotel booking environment. Second, there is a growing number of studies that examine the effects of payment timing when making online hotel reservations. As many hotels give options for delayed payments, future research can examine the interaction effects

between the timing of payment options and cancellation options on booking intentions. Further, future studies can include other stimuli such as marketing ads, framing, and other psychological aspects to explore how they influence consumers' booking intentions. Third, the study was performed based on a single price point, assuming that consumers are booking a midscale hotel. Future studies can replicate studies to explore consumer booking intentions for other hotel scales such as upscale and luxury hotels. Further, the current study was designed to for a solo leisure trip. However, other types of travel (e.g., family trip and business trip) may provide notable findings and implications for the practitioners and researchers. Lastly, consumer booking intentions can be observed from a longitudinal perspective. Although the industry is getting back to normal after experiencing the COVID-19 pandemic, perceived risk is expected to be higher than the pre-COVID period. On this aspect, it is possible that consumers show other preferences depending on the passage of time or current COVID situation.

APPENDIX
CONSTRUCTS AND MEASUREMENT ITEMS

Constructs	Items
Perceived Risk (Jang et al., 2022)	<ol style="list-style-type: none"> 1. Booking the hotel room with the [Non-refundable/ Refundable] option would be an inappropriate way to spend money. 2. If I booked the hotel room with the [Non-refundable/ Refundable] option, I would be concerned that the financial investment would not be wise. 3. If I booked the hotel room with the [Non-refundable/ Refundable] option, I would be concerned that I would not get my money's worth from the booking. 4. Booking the hotel room with the [Non-refundable/ Refundable] option would not provide value for the money I spent.
Perceived Psychological Risk (Jang et al., 2022)	<ol style="list-style-type: none"> 1. The thought of booking the room with the [Non-refundable/ Refundable] option makes me feel uncomfortable. 2. The thought of booking the room with the [Non-refundable/ Refundable] option gives me a feeling of anxiety. 3. The thought of booking the room with the [Non-refundable/ Refundable] option causes me to experience tension.
Perceived Time Risk (Jang et al., 2022)	<ol style="list-style-type: none"> 1. Booking the hotel room with the [Non-refundable/ Refundable] option could lead to an inefficient use of my time. 2. Booking the hotel room with the [Non-refundable/ Refundable] option would take too much time / be a waste of time due to adjustments or refunds.
Booking Intention (White et al., 2011)	<ol style="list-style-type: none"> 1. If I were going to book a hotel room, the probability of booking this hotel room is 2. The probability that I would consider booking this hotel room is 3. The likelihood that I would book this hotel room is

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