The Impact of Covid-19 on Customers' Behavior to Hotel Industry in China

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Abstract: This study investigates the influence of the Covid-19 pandemic on consumer behavior within the hotel industry in China. Due to the severe spread of the epidemic, tourism and hotel industries in various countries and regions have been devastatingly affected. Utilizing the theory of planned behavior as a theoretical framework, the research employed a questionnaire survey, receiving 435 responses, of which 205 were valid. The findings indicate that the pandemic has significantly affected hotel consumers' behavior, with primary factors including risk management, contact-less services, cleanliness, and marketing strategies. The study revealed that risk management, contact-less services, hygiene and cleanliness, and marketing approaches significantly impact consumer behavior, while perceived risk did not show a significant impact. The research suggests that hotel managers should focus on risk management training, adopt contact-less services, enhance hygiene standards, and innovate in marketing to meet post-pandemic customer needs and improve revenue. The study contributes to understanding the behavioral changes of hotel consumers during the Covid-19 crisis and offers strategic recommendations for the hotel industry's adaptation and recovery.

1. Introduction

1.1 Background of the Study

An unknown type of pneumonia was discovered for the first time in Wuhan, the capital of Hubei Province, China in 2019. On December 31, China officially reported this new type of corona virus to the World Health Organization. On January 30, 2020, the World Health Organization once again announced the emergence of a "public health emergency of international concern". This is the follow-up to the World Health Organization's announcement in 2018 that the Congo (DRC) Ebola virus outbreak is a "public emergency of international concern", which is the most recent one since the health incident. On February 11, 2020, the WHO officially named the disease COVID-19. Since the beginning of February 2020, daily news about COVID-19 has become the hot headline news of countries around the world.

With the outbreak of the COVID-19 epidemic, it caused global panic due to its human-to-human

transmission and its lethality. Countries around the world have been affected and have taken effective measures to curb the spread of the virus by implementing government administrative notices to block areas, restricting, isolating, wearing masks, and maintaining social distance, because of no vaccine to control the COVID-19 epidemic currently.

The continuous spread of COVID-19 and travel restrictions issued by various countries have caused immeasurable losses to the global tourism and hotel industry. Gloria Guevara, President and CEO of the World Tourism and Travel Council [1], put forward in the keynote speech at the World Tourism Cooperation and Development Conference on September 5, 2020, with the theme of "Restarting Tourism and Creating Prosperity", stated that, "Due to the COVID-19 global health crisis, a total of 121 million jobs worldwide are currently affected." He also claimed that traveling and tourism industry "have been facing collapse", and everyone is "fighting for survival" [1]. With the slowdown of global economic activity, the reduction in tourism is particularly sensitive to hotel industry[2].

Due to the suddenness and contagion of COVID-19, global business, trade, tourism and other activities in various countries have continued to be canceled or postponed, and the hotel industry occupancy rate has dropped sharply.

The total revenue of tourism in China in 2020 is expected to be about 7.2 trillion Yuan. But, with the rapid spread of the epidemic, the loss affected by the epidemic is about 30% of the total value predicted before the epidemic. Thus, the amount of loss is about more than 2 trillion Yuan. Since January 2020, the COVID-19 has spread rapidly across the country in China. Although the severity of the epidemic varies from place to place, hotels in most regions of the country have to shut down to stop the spread of the epidemic in accordance with the requirements of government departments. The continuation of the epidemic has not only brought irreparable losses to the operation of the hotel industry, but also provided lessons for the sustainable and healthy development of the hotel industry in post-pandemic era. After the epidemic, the business model of the hotel industry will also undergo profound changes.

In the first two months of 2020, hotel and home-stay accommodation companies lost more than 67 billion Yuan in turnover (is shown in Figure 1). A large number of rooms, private rooms, banquets, conferences, annual meetings and vacation plans that have been booked for the Spring Festival from January to February have been canceled. In February alone, the average revenue of mid-to-high-end hotels fell by 86% year-on-year, down to 4.95 million Yuan per unit, and the average revenue of mid- and low-end hotels fell 92% year-on-year, which was about 720,000 Yuan per unit. 74.29% of hotels and home-stays chose to close their stores directly, with an average of 27 days closed.
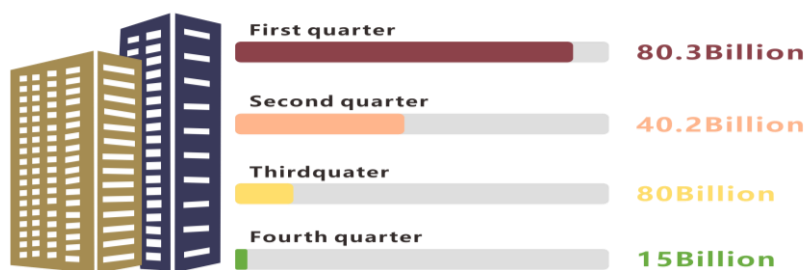
Figure 1: The Lodging Industry Turnover Forecast Analysis

1.2 Statement of the Problem

The impact of this COVID-19 epidemic has undoubtedly affected every single industry in the world. The most frightening influence to people is the serious threats to human life and health. People have changed their life habit and style to prevent the virus from outside to inside, from tangible to intangible, from offline to online. To be predictable, after COVID-19, the customers' behavior would be changed. However, there is no reliable evidence showed that how customers' behavior would be changed in China. So the objective of this research is to investigate the impact of COVID-19 on consumers' behavior in China, which could help the hotel managers for taking corresponding measures to meet customers' needs in post-pandemic Era.

1.3 Research Objectives

● To identify the factors which influence the customers' behavior because of COVID-19 epidemic in China.
● To determine how these five factors affect customers' behavior in hotel industry in China.
● To recommend the hotel company how to meet the customers' needs and increase the hotel's revenue.

2. Literature Review

2.1 Reviews of Key words

2.1.1 Perceived risk

Perceived risk refers to individuals' psychological evaluations of the probability and consequences of an adverse outcome[3]. The cognitive dimension of perceived risk refers to the probability and severity of outcomes that are evaluated from extant information while the emotional dimension of perceived risk is related with worry, concern, and fear that an individual experience about a potential threat [4].

2.1.2. Risk management

Risk refers to the possibility and consequence that the future occurrence of a matter is uncertain and has a negative impact on the realization of the goal[5]. Risk management is to deal with risks and seize opportunities to create or maintain the value of the company's assets, in addition to protect and improve the stock price, and maximize the value of the company [6]. Furthermore, the main goal of risk management is to deal with and control the risks, prevent and reduce losses, so as to ensure the smooth operation of the company, the society and various activities [6].

2.1.3. Contact-less service

The digital, intelligent, and contact-less service will reduce interpersonal contact and the risk of cross-infection,and thus boost customer's confidence in the service environment[7].Contact-less services aim to avoid human contacts ; stay in public areas, including self-check-in, remote check-in, face-scanning, voice control of room service, robotic room service, and the zero-second check-out, etc. in hotel industry [7].

2.1.4. Hygiene and cleanliness

Cleanliness includes another important criterion – hygiene. Hygiene has been determined to be a

potential enhancer of service quality[8]. Hygiene was defined to include the general cleanliness of personnel, food, and foodservice establishment[8].

The Hygiene Practices covers proper storage of food items, maintenance of clean environment during food preparation, and assurance of all dishes served clean and free of bacteria that can potentially cause further contamination and cause food borne illness[9].

2.1.5. Marketing approaches

The hotel industry has an opportunity to deploy the Web as an effective marketing tool, provided that it is able to respond to the demands of Internet commerce by being responsive, agile and innovative[10].

By implementing innovative and effective measures, organizations can leverage their resources to effectively meet consumers' needs, thereby creating higher customer value and providing enhanced support in managing risks[11].

2.2 Theoretical Framework

The theoretical framework of this study[12-13] illustrates that customer attitudes, subjective norms, and behavior control perceptions affect the relationship between personal behavior intentions. Although Zajonc [17] pointed out that cognition does not necessarily have an impact, the literature on risk perception and fear shows that risk perception precedes fear, not the other way around[14-15]. The current research will follow the method defined by Hutjens [13], which is based on the research of Rountree and Land (1996) [14] and Warr (1987)[15].
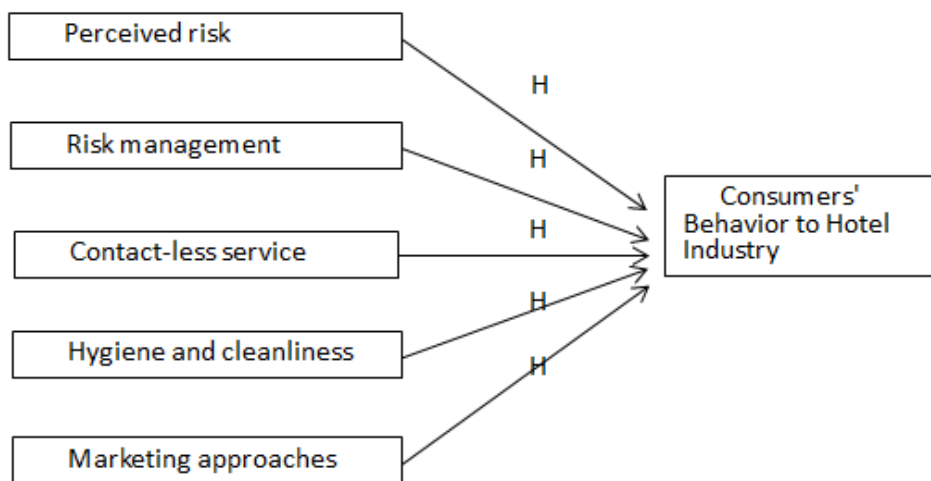
2.3 Conceptual Framework

Figure 2: Conceptual Framework Model

The study intends to study the factors influence consumers' behavior to hotel industry in COVID-19 epidemic. Therefore, for this current study, only hygiene and cleanliness, contact-less service were included[16]. Meanwhile, consumers' perceived risk, the risk management strategies or capabilities of an organization, as well as the marketing approaches are also be considered in the previous studies. So the framework using in this research is conducted by these five potential factors directly effected to the consumers' behavior (is shown in Figure 2). According to the conceptual framework, it can be concluded that the defined hypotheses are shown in Table 1.

Table 1: Defined Hypotheses

No.	H	Hypotheses
1	H1	Perceived Risk has a significant impact on customer's behavior towards hotel industry.
2	H2	Risk management has a significant impact on customer's behavior towards hotel industry.
3	H3	Contact-less service has a significant impact on customer's behavior towards hotel industry.
4	H4	Hygiene and cleanliness have a significant impact on customer's behavior towards hotel industry.
5	H5	Marketing approaches has a significant impact on customer's behavior towards hotel industry.

3. Research Methodology

The research is divided into five parts. The first part is research design. Researchers use descriptive research and investigation methods to conduct research. Second, these data come from people who work or live in China and have experience staying in hotels. The sampling procedure is a non-probability method to facilitate sampling. Third, researchers choose to use online questionnaires as research tools. The fourth part is data collection through online distribution of "Questionnaire Star". Finally, conduct a thorough statistical analysis of the data, encompassing both descriptive and inferential analyses.

3.1 Research Design

Researchers use descriptive and inferential data analysis for quantitative research. This study adopts the research design method of questionnaire survey.

3.2 Data gathering and Sampling Procedures

The target population of this study is people who work or live in China and have experience staying in hotels. According to the 2019 National Star-rated Hotels Statistics Report of the Ministry of Culture and Tourism of China, as of June 30, 2019, the total number of star-rated hotels nationwide was 10,284.

In this study, the researchers used non-probability sampling procedures to find sampling units. The selected method is convenience sampling which is collected from the population who are convenient and accessible to respond the survey.

3.3 Research Instruments/questionnaire

The questionnaire is divided into screening questions, variable questions and demographic factors. In order to obtain some special interviewees, the researchers used screening questions, including "Did you live in China?" and "Have you stayed in a hotel?" There are 5 variables in the variable question, namely, perceived risk, management risk, and Contact services, cleaning and hygiene, marketing methods. The study encompasses four subcategories of perceived risk, three aspects of risk management, four dimensions of non-contact services, four concerns regarding cleanliness and hygiene, and four facets of marketing strategies. Finally, demographic issues include gender, age, occupation and monthly income level.

3.4 Collection of Data

The global Internet is being fully integrated into various fields of economic and social production and life. With the popularization of smart phones and tablet computers, the research questionnaire will be conducted through online channels, using the "Questionnaire Star" online questionnaire as a survey tool. The benefits and advantages of using online channels to issue questionnaires are fast, easy to use, and low cost. The questionnaire was distributed to 200respondents using a convenient sampling method. The subjects of the survey will be people who live or live in China, as well as people who have stayed in hotels.

3.5 Statistical Analysis of Data

Researchers applied descriptive analysis to determine and analyze demographic data, including gender, age, and income level from respondents. Therefore, this study uses descriptive analysis to present the research and uses quantitative methods to collect data from the respondents. Moreover, the researchers applied the inferential analysis to study an essential impact of COVID-19 in customers' behavior in hotel industry. In order to investigate the hypothesis, the researchers used Multiple Linear Regression to test and examine the factors influence customers' behavior.

4. Result and Discussion

4.1 Data Analysis

This research is based on the questionnaire data collected by on-line survey APP, using a multiple linear regression model to examine the impact of the five independent variables of perceived risk, risk management, contact-less services, hygiene and cleanliness, and marketing approaches on the hotel. The investigation focuses on the interplay of influential factors among the dependent variables related to consumer behavior within the industry.

4.2 Descriptive Analysis

In this part, it will show the demographic characteristic of people from survey collection collected from 435 respondents in China. This research conducted an online survey with both qualitative and quantitative questions. Totally 28 questions in Chinese language and experienced by China's largest free on-line survey APP [16]. The project team obtained 205 valid questionnaires. Therefore, this research will analyze 205 respondents who live in China and have stayed in hotels since the case was detected in Wuhan, China in December 2019.

4.3 Inferential Analysis and Multicollinearity Validation

The above figure is the result obtained by multiple linear regression (Table 2). The Adjusted R Square value is 0.513, which means that the above five independent variables are Perceived risk (PR), Risk management (RM), Contact-less service (CS), Hygiene and cleanliness (HC), Marketing approaches (MA) can get 51.3% of the value to support the dependent variable. The P-value values of Risk management (RM), Contact-less service (CS), Hygiene and cleanliness (HC), and Marketing approaches (MA) are all supported, while the P-value value of Perceived risk (PR) is greater than 0.05, not supported.

The multicollinearity problem is verified by the variance inflation factor (VIF). And all the VIF in this research are less than 5.00, which means that there are no key issues in this study.

Table 2: Multiple Linear Regression Result, Dependent Variable: Consumers' Behavior in Hotel Industry

Variables	Standardized Coefficient (β)	VIF	P-Value	Result
Perceived risk	-.048	1.316	.391	Not supported
Risk management	.179	1.391	.002	Supported
Contactless service	.126	1.338	.027	Supported
Hygiene and cleanliness	.441	1.731	.000	Supported
Marketing approaches	.199	1.654	.002	Supported
R Square	.525			
Adjusted R Square	.513			

5. Conclusion and Recommendation

The purpose of this study is to find more than 200 consumers who have lived in China and have experience staying in hotels during the COVID-19 epidemic to discover their behavior changes to the hotel industry during this special event. In order to obtain relevant data, this study finally used multiple linear regression methods to evaluate the results of 205 valid respondents through on-line questionnaire surveys.

This study found that the perceived risk of customers is crucial to the hotel industry under the epidemic. Through the experience of dealing with the epidemic, hotel operators found that hotel industry and hoteliers need to adopt appropriate methods to convey low-risk information to consumers, and take further active actions to reduce the possibility of consumers' infection. These measures are employed with the aim of reducing customers' perceived risk and fostering or enhancing consumer confidence.

Hotel managers and practitioners need to think carefully and formulate risk management training in their daily work, so as to cultivate the risk awareness and emergency response capabilities of management and employees.

During and after the epidemic, the application of contact-less services or facilities will become a trend in the hotel industry, especially in the restaurants, guest rooms, and any other public areas in the hotel. These areas are the spaces where customers and hotel staff have relatively intensive contact. Providing contact-less services would help to reduce the worry and anxiety caused by consumers' contact with other people in public areas. At the same time, through the implementation of new technical solutions, it helps to provide work efficiency, reduce labor costs, and help companies reshape the fashion label with a "high-tech sense".

According to the result of this research, in the epidemic environment, hygiene and cleanliness factors do directly affect consumer behavior. It can be suggested that the hotel companies should improve hotel sanitation standards as soon as possible and use more professional methods to upgrade cleaning procedures in order to further improve and insure the level of sanitation and health safety. Of course, these upgraded measures can be based on the recommendations of the local official public health agencies, or the World Health Organization and the Centers for Disease Control and Prevention.

During the COVID-19 epidemic, the people living in China were forcibly isolated at home by government request, which has made people more dependent on the Internet for information acquisition and communication with other people. Therefore, based on this, in order to have more contact with consumers and deliver the information of both hotel and products to consumers, hotel companies need to rely on innovative marketing strategies or methods to attract or expand their customer market. It is suggested that the hotel company can increase the investment of funds and

manpower in network promotion, and conduct promotion in a way that people love and are used to.

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