

Exploring The Characteristics of Artificial Intelligent Hotel Consumers and Consumers' Choice Intention

Yichao Wu^{1, a, *}, Wen Bao^{1, 2, b}, Min Wang^{1, c}

¹Woosong Graduate School, Woosong University, Daejeon, South Korea

²Department of Modern Services, Lanzhou Vocational Technical College, Lanzhou, China

^ayichaowuian@gmail.com, ^bbwen0586@gmail.com, ^chospitalitygraduateschool@gmail.com

Abstract

This paper analyzes the importance of the selection factors of people of different ages, genders and educational backgrounds in choosing Alibaba's "FlyZoo" future hotel, a new type of artificial intelligent hotel, as well as the importance and satisfaction of the services provided by the hotel during the stay. This paper discusses the characteristics of the consumer population and the consumer's choice intention. This paper firstly discusses the development situation of the artificial intelligent hotel in China, and describes the reasons for the development of the artificial intelligent hotel. The research methods of literature analysis, questionnaire and quantitative analysis are used to analyze the current problems of the artificial intelligent hotels, such as Alibaba's "FlyZoo" future hotel, and put forward reasonable and constructive suggestions. Determine the characteristics of the main consumer groups and consumers' intention to choose the artificial intelligent hotel.

Keywords

Artificial Intelligence; Hotels; Crowd Characteristics; Selection Intention.

1. INTRODUCTION

With the strengthening of China's comprehensive national power and the improvement of technology, artificial intelligence technology is also becoming increasingly mature, and artificial intelligence-type hotels are also bred. The first artificial intelligence type hotel in China was opened by Shenzhen Leyiju Intelligent Technology Co., Ltd. in Chengdu on New Year's Day 2018, and as of December 2018 Leyiju has set up a total of six artificial intelligence type hotels in the country but Leyiju unmanned artificial intelligence type hotels are not all unmanned, on December 18, 2018 Ali's first future hotel - - "FlyZoo" (FlyZoo Hotel) opened, "FlyZoo" future hotel is the first domestic all unmanned by artificial intelligence services of black technology hotel, but the domestic artificial intelligence type hotel However, the development of domestic artificial intelligence type hotel also appears many problems, such as: the main consumer group of artificial intelligence type hotel, people's choice of staying in artificial intelligence type hotel and so on. In this paper, we interviewed and surveyed consumers of different age groups, and learned the experience and evaluation of customers staying in artificial smart hotels through OTA platforms such as Ctrip and Flying Pig. Taking Alibaba "FlyZoo" future hotel as an example, we sort out the consumer choice intention of artificial smart wine spot, explore the consumer characteristics of artificial smart hotel, and provide reference for the sustainable development of artificial smart hotel.

The innovation of this paper is to analyze the consumer characteristics and consumer choice intention of artificial smart hotels based on the questionnaire data, to enrich the theoretical system of the research on artificial smart hotels, and to provide theoretical reference when determining the consumer market in the development of artificial smart hotels. The theoretical research in this paper is conducive to identifying the consumer market for artificial intelligence type hotels and improving the current situation of slow and unbalanced development of artificial intelligence type hotels in the domestic hotel industry as a whole. Artificial intelligence type hotel is a new type of hotel model, and the development of technology level has improved to give technical support to the artificial intelligence type hotel in China. China's artificial intelligence type hotel is currently in the initial stage of development. The research on the characteristics of the consumer group and the consumer's choice intention of the artificial intelligence type hotel can help the artificial intelligence type hotel choose the consumer group to focus on, open the market quickly, and determine the survival mode and business model belonging to the artificial intelligence type hotel model. In the hotel industry multi-model survival and enter the rapid growth period of development.

2. LITERATURE REVIEW

Artificial intelligence hotel is a hotel has a complete set of intelligent system, through digitalization and networking to achieve the hotel digital information service technology, with the application of the hotel lighting control system and the application of the hotel air conditioning control system and other applications. Unmanned hotel is the use of intelligent technology and Internet of Things technology to provide users with self-service check-in new hotel, winning in the sense of experience and novelty, with the development of artificial intelligence and Internet of Things technology unmanned hotel is upgrading. Hotel intelligence is an area of continuous enrichment and development. As a place to provide services directly to the guests, the hotel should fully consider the needs of personal privacy, personalization, and the comfort and convenience brought by feeling high-tech. At the same time, hotel physical consumption, energy consumption, and personnel costs, should also be considered to minimize and create benefits. Quan (2008)[1] analyzed the service countermeasures taken by hotels to different types of guests by studying the service countermeasures taken by hotels to personal psychology, from two aspects: service countermeasures taken by hotels to human temperament types, and service countermeasures taken by hotels to human personality types. Chen and Tong (2010)[2] used questionnaire method and interview method to study the consumer behavior characteristics of Beijing International Youth Hostel, descriptive statistics of the survey data, concluded that the main factors affecting consumer decision are room price and location, and put forward six feasible suggestions. Zhao (2012)[3] through the review of smart hotel, put forward for further construction of smart hotel four Main references: 1. digital hotel room system to improve service level; 2. intelligent hotel management system to improve management level; 3. self-service counter in the hotel lobby to reduce labor cost; 4. intelligent system to save energy to reduce energy expenditure. Cai et al (2013)[4] through the analysis of the current situation and development trend of Nanjing smart hotel research described the smart hotel service, smart Li and Zhu (2013)[5] through the analysis of the future development trend of the hotel industry, proposed that smart hotel is an inevitable development trend, and argued its point of view from the significance and development core value of smart hotel. Summarize the main driving force of the construction of smart hotels in Zhenjiang City and the prospect of smart hotel operation. Tang (2014)[6] conducted a study through the construction of smart hotels, explained the conventional facilities and basic services of smart hotel construction, and summarized three aspects of smart hotel intelligent cloud service construction, smart hotel intelligent system construction, and smart hotel intelligent management construction.

Consumer crowd characteristics refers to the consumer crowd that roughly has the characteristics of communication after the questionnaire and other ways of investigation, according to the age, gender, income, cultural background and other aspects of consumer conditions integrated analysis. A number of consumers with some common characteristics of the collection is the consumer group. All consumers with the same characteristics will show the same or similar consumer psychological behavior, because members of the same group generally have more frequent contact and interaction with each other, and thus can influence each other. Consumer psychological perspective: Consumer choice intention is the degree to which consumers tend to choose one of the goods among the same type of goods. An indicator signal of actual consumer shopping behavior. It is usually measured by the speed, direction, and magnitude of a consumer's shift in the likelihood of purchasing a good over a period of time. In economic terms, consumer choice intention is equivalent to purchase intention, which refers to the willingness of a consumer to purchase a product at its equilibrium market price given his monetary income (Li, 2015)[7].

In summary, through the combing of literature, it is found that there is not enough research related to artificially intelligent hotels, and there are few studies on the characteristics of the consumer population and consumer choice intention of artificially intelligent hotels, so it is necessary to analyze the research made on artificially intelligent hotels from the perspective of the characteristics of the consumer population and consumer choice intention to provide reference for the sustainable development of the hotel industry..

3. METHODOLOGY

In this paper, we investigate the literature on artificial smart hotels, consumer characteristics and consumer choice intention, so as to understand the related concepts and research results, select the information materials applicable to this study, make appropriate analysis and use these information materials, and provide a theoretical basis for better research on the consumer characteristics and consumer choice intention of artificial smart hotels. In this paper, we use the questionnaire method, based on the literature, we use the questionnaire design and then use the questionnaire to survey the consumer groups of different ages and other characteristics, to analyze their choice intention when staying in the artificial intelligent hotels such as Alibaba "FlyZoo" Future Hotel, and to understand their choice intention. This paper analyzes consumers' intention to stay in Alibaba's "FlyZoo" Future Hotel and other artificial intelligent hotels to understand consumers' views on this new hotel model. Based on the analysis of the survey questionnaire, this paper uses SPSS software and Excel software to conduct quantitative analysis of the data to further determine the characteristics of the main consumer groups of Alibaba's "FlyZoo" future hotels and other artificial intelligent hotels and consumers' intention to choose this new hotel model.

3.1. Study Background

Artificial intelligent hotel is a high-tech intelligent hotel with no one to serve and handle related business. With the first domestic le easy to live artificial intelligence type hotel opened on January 1, 2018 in Chengdu marking the new hotel model artificial intelligence type hotel in China, followed by the second le easy to live intelligent technology limited company opened in late March 2018, the second le easy to live artificial intelligence type hotel site is located in Shenzhen Bagua Ling, and in July 3, 2018 in Shenzhen Yantian international creative port opened The third Leyi residence artificial intelligence type hotel. So far, Leyiju Intelligent Technology Co., Ltd. has opened five Leyiju hotels, mainly located in Chengdu, Shenzhen scenic spots or creative technology parks, and three Leyiju artificial intelligent hotels in Chongqing, Guangzhou, Hangzhou will soon be open to the public.

On November 11, 2018, with the start of the Taobao Double Eleven event, Alibaba Network Technology Co., Ltd. officially launched Alibaba's "FlyZoo" future hotel booking page on Taobao.com and Flying Pig Travel Network and launched a booking promotion for the Double Eleven, which also marked the official launch of Alibaba Network Technology Co. This also marks the official launch of Alibaba Network Technology Co. Alibaba "FlyZoo" hotel is located in Alibaba Xixi Park Future Science and Technology City, and has attracted great attention upon its launch. "FlyZoo" hotel design futuristic, not set up a front desk guests can check in before arrival, no room card all face recognition, intelligent voice operation, fitness scene intelligence and so on. The opening of "FlyZoo" hotel marks a new stage in the development of China's artificial intelligence-based hotels.

China's hotel industry has been developing for a short period of time but at a rapid pace, especially the artificial intelligence type hotels have been opened one after another in less than two years in a row. As of November 2018, the artificial intelligence type hotels that have been opened include Le Yi Zhu artificial intelligence type hotel, Ali "FlyZoo" hotel, Ming Yi intelligent chain hotel, Cat Mountain House intelligent chain hotel, etc., and the upcoming opening of Chengdu M screen synchronous movie intelligence hotel.

3.2. Questionnaire

In this paper, we analyze the consumer characteristics and consumer choice intention of the artificial intelligent hotel, mainly based on Alibaba's "FlyZoo" future hotel, and the questionnaire is divided into background and main parts. The background part is about the basic background information of the respondents, such as their gender, age, region, education level, monthly income, frequency of staying in the hotel, etc. This part of the background survey includes content that facilitates the investigator to classify all respondents into population characteristics and provides a basis for comparison of the classification. The main part of the survey focuses on Alibaba's "FlyZoo" future hotel, which is a type of artificial intelligence hotel consumer selection factors, stay experience, hotel service importance and satisfaction, etc., through data comparison to quickly understand Alibaba's "FlyZoo" future hotel This paper analyzes the factors of consumer choice, experience, service importance and satisfaction of Alibaba's "FlyZoo" future hotel, and the main consumers of Alibaba's "FlyZoo" future hotel. The questionnaires of this paper were distributed on questionnaire platforms such as Questionnaire Star at 21:55 on November 10, 2022, and collected at 19:38 on December 16, 2022. 500 questionnaires were distributed and 406 questionnaires were collected as of December 16, 2022, with an actual valid questionnaire rate of 406 and a valid questionnaire rate of 100%.

4. DATA ANALYSIS AND RESULTS

4.1. Basic Information Description

According to the questionnaire data statistics, the basic information of the people who participated in the questionnaire survey is as follows.

Gender: 406 people participated in the questionnaire survey, of which 204 were male, accounting for 50.2%; 202 were female, accounting for 49.8%, which is basically equal for male and female, in line with the principle of questionnaire survey.

Age stage: 20 people (4.9%) were under 18 years old; 134 people (33.0%) were between 18 and 25 years old; 94 people (23.2%) were between 26 and 30 years old; 72 people (17.7%) were between 31 and 40 years old; 20 people (4.9%) were over 51 years old.

Education level: 74 people (18.2%) had high school education or below; 130 people (32.0%) had college education; 183 people (45.1%) had bachelor's degree; 13 people (3.2%) had postgraduate education; and 6 people (1.5%) had doctoral education.

From which region: 89 people (21.9%) from Northeast China; 75 people (18.5%) from East China; 67 people (16.5%) from Central China; 70 people (17.2%) from South China; 48 people (11.8%) from Southwest China; 57 people (14.0%) from Northwest China.

Monthly salary: below 4,500 yuan, there are 101 people, accounting for 24.9%; monthly salary of 4,501-6,000 yuan, there are 80 people, accounting for 19.7%; monthly salary of 6,001-7,500 yuan, there are 83 people, accounting for 20.4%; monthly salary of 7,501-9,000 yuan, there are 86 people, accounting for 21.2%; monthly salary of 9,001 yuan or more, there are 56 people, accounting for 13.8%.

Frequency of staying in the hotel: 164 people (40.4%) stayed 1-3 times a year; 163 people (40.1%) stayed 4-6 times a year; 51 people (12.6%) stayed 7-9 times a year; 28 people (6.9%) stayed more than 10 times a year.

Reasons for staying in artificial intelligent hotels: 60 people (14.8%) for business trips; 114 people (28.1%) for vacation trips; 24 people (5.9%) for visiting friends and relatives; 38 people (9.4%) for personal trips; 82 people (20.2%) for novel experiences; 37 people (9.1%) for high-tech interests; 39 people (9.6%) for convenient stays; and 12 people (3.0%) for others. accounted for 3.0%.

How do you know Alibaba FlyZoo Future Hotel: 120 people (29.6%) know it through search engines; 134 people (33.0%) know it through news and information; 73 people (18.0%) know it through friends' recommendation; 79 people (19.5%) know it through hotel activities.

Channel booking: 38 people (9.4%) booked by phone; 27 people (6.7%) booked on site; 108 people (26.6%) booked through Taobao flagship store; 143 people (35.2%) booked through Flying Pig platform; 90 people (22.2%) booked through FlyZoo official website.

Price room: 194 people (47.8%) chose the room at 999-1399 yuan; 147 people (36.2%) chose the room at 1400-1632 yuan; 51 people (12.6%) chose the room at 1633-1866 yuan; 14 people (3.4%) chose the room at 1867-2332 yuan.

4.2. Descriptive Statistics

The following is the descriptive statistics section of the questionnaire, which is divided into three parts. The largest mean in the first part is the security level option, which indicates that in the first part, the people who participated in the questionnaire attach the most importance to the security level of the hotel; the largest standard deviation is the technology smart check-in experience option, which indicates that the people who participated in the questionnaire attach less importance to the technology smart check-in experience of the hotel; the smallest standard deviation is the location option, which indicates that the people who participated in the questionnaire attach more importance to the The smallest standard deviation is the option of location, which indicates that the importance of location is more consistent among the participants.

The largest mean in the second part is the automatic identification option, indicating that in the second part, the people who participated in the survey attach the most importance to the automatic identification service provided by the hotel; the largest standard deviation is the AI in-depth experience option, indicating that the people who participated in the survey attach less importance to the AI in-depth experience service provided by the hotel; the smallest standard deviation is the artificial intelligence delivery service option, indicating that the people who participated in the survey attach less importance to the AI in-depth experience provided by the hotel. The smallest standard deviation is the AI delivery service option, which indicates that the people who participated in the questionnaire survey attach more importance to the AI delivery service provided by the hotel.

The largest mean in the third section is the guest service quality option, indicating that in the second section, the participants are most satisfied with the hotel's guest service quality; the

largest standard deviation is the guest privacy protection option, indicating that the participants are less consistent in their satisfaction with the hotel's guest privacy protection; the smallest standard deviation is the voice control recognition option, indicating that the participants are more satisfied with the hotel's voice control recognition service. The smallest standard deviation is the option of voice control recognition, which indicates that the satisfaction level of the questionnaire participants for the hotel's voice control recognition service is more consistent.

Table 1. Table of Descriptive Statistics

	Average	Standard Deviation	
Part 1	Technology Smart Check-in Experience	3.86	1.126
	Service quality for guests	3.99	1.091
	Hotel brand status	3.92	1.066
	Room rates	3.86	1.099
	Information privacy protection	3.97	1.069
	Security level	4.01	1.084
	Location	3.91	1.059
	Related supporting facilities	3.97	1.108
Part 2	Decoration style	3.93	1.085
	Face recognition check-in	3.60	1.177
	AI in-depth experience	3.74	1.124
	Intelligent scene fitness	3.70	1.108
	Artificial intelligence food delivery service	3.69	1.084
Part 3	Multi-language intelligent recognition	3.70	1.119
	Automatic identification of documents	3.75	1.090
	Hotel price	3.58	1.106
	Service quality for guests ²	3.77	1.075
	Artificial intelligence technology	3.73	1.079
	Voice control recognition	3.70	1.002
	Food and drink hygiene and safety	3.74	1.060
Intelligent fitness guidance	3.69	1.087	
Guest privacy protection	3.74	1.109	

4.3. Chi-Square Test

Chi-Square test was conducted on the technology smart check-in experience based on different questions, and there were differences in gender, region, frequency of stay, reason for stay, how to know Alibaba FlyZoo Future Hotel, channel booking, and price room. In the gender question, 126% of men and 74% of women attach great importance to it, with a difference of 52%, indicating that men attach more importance than women to the technological smart check-in experience. In the question from which region, 123% of people in Northeast China attach great importance plus importance, while 41.6% and 41.2% of people in Central China and South China respectively do not attach importance plus very little importance, indicating that people in Northeast China care more about technology and smart check-in experience, while people in Central China and South China do not care more. In the question of hotel frequency, those who stayed 1-3 times a year attached great importance plus importance accounted for 155%, while those who stayed 4-6 times a year did not attach importance plus very little importance accounted for 102.8%. It shows that in this question, people who stay 1-3 times a year care more about the technology and smart stay experience than other people, and people who stay 4-6 times a year don't care. In the question of how to know Alibaba FlyZoo

Future Hotel, the percentage of people who know through search engines who attach great importance to it and attach great importance to it is 111%, and the percentage of people who know through news and information who do not attach importance to it and do not attach great importance to it is 87.3%, indicating that people who know through search engines care more about the technology and smart check-in experience than other people, and those who know through news and information do the opposite. In the channel booking question, 70% and 56% of people who booked by phone and 56% of people who booked through FlyZoo's official website paid more attention to the technology and smart check-in experience respectively, while 97.4% of people who booked through FlyZoo's platform paid less attention to the technology and smart check-in experience. In this question, those who booked by phone and those who booked through FlyZoo's official website were more concerned with technology and intelligence, while those who booked through FlyZoo's platform were the opposite. In the room price question, 180% of the people who chose the room price of 999-1399 RMB paid more attention to it, while 97.5% of the people who chose the room price of 1400-1632 RMB did not pay much attention to it, indicating that the people who chose the room price of 999-1399 RMB cared more about the technology and smart check-in experience compared with other people, while the people who chose the room price of 1400-1632 RMB cared less. The opposite is true for those who choose the price range of RMB 1400-1632.

Chi-Square test was conducted on the quality of guest service based on different questions, and there were differences in the monthly salary and channel booking questions. In the monthly salary question, 56.4% of people with monthly salary of RMB 4,501-6,000 pay more attention to the quality of hotel guest service, while 53.2% of people with monthly salary of less than RMB 4,500 pay less attention to the quality of hotel guest service, and 53.2% of people with monthly salary of less than RMB 4,500 pay less attention to the quality of hotel guest service. Those with a monthly salary of less than RMB 4,500 do not care about the quality of hotel guest service compared to other groups. In the channel booking question, 80.2% of the people who booked through Taobao flagship store attached great importance and attached great importance, while 73.8% of the people who booked through Flying Pig platform did not attach importance and attached great importance, indicating that people who booked through Taobao flagship store cared more about the quality of hotel guest service, while people who booked through Flying Pig platform did the opposite.

Chi-Square test was conducted on room price based on different questions, and there were differences in education level, how to know Alibaba FlyZoo Future Hotel, and channel booking. Among them, in the question of education level, the percentage of people with high school education or below who attach great importance plus importance is 71.5%, and the percentage of people with bachelor's degree who do not attach importance plus very little importance is 96.5%, indicating that people with high school education or below care more about hotel room price compared with other people, and the opposite is true for people with bachelor's degree. In the question of how to know Alibaba FlyZoo Future Hotel, the percentage of people who know Alibaba FlyZoo Future Hotel through news and information who attach great importance plus importance is 71.4%, and the percentage of people who know Alibaba FlyZoo Future Hotel through news and information who do not attach importance plus very little importance is 65.8%, indicating that people who know Alibaba FlyZoo Future Hotel through news and information hold opinions on room price. The people's opinions on room prices are two extremes, with large differences and variability. In the channel booking question, 85.7% of the people who booked through Taobao flagship store attached great importance and attached great importance, while 76.1% of the people who booked through Flying Pig platform attached little importance and attached very little importance, indicating that people who booked through Taobao flagship store cared more about the room price, while those who booked through Flying Pig platform did the opposite.

The Chi-Square test was conducted based on different questions on information privacy protection, and there were differences in gender, age, education level, monthly salary, reason for staying, how to know Alibaba FlyZoo Future Hotel, channel booking, and room price. Among them, in the question item of gender, the percentage of men who attach great importance plus importance is 36.2% higher than that of women who attach great importance plus importance, indicating that men care more about information privacy protection than women. In the age stage question, the percentage of people aged 18 to 25 who attach great importance plus importance is 59%, and the percentage of people aged 18 to 25 who do not attach importance plus very little importance is 70.2%, indicating that people aged 18 to 25 have two extremes of opinions about hotel information privacy protection, which are different and have differences. In the question of education level, 58.5% of people with high school education or below attach great importance to the protection of hotel information, and 93.6% of people with bachelor's degree do not attach importance to the protection of hotel information, indicating that people with high school education or below care more about the protection of hotel information privacy, and people with bachelor's degree do the opposite. In the monthly salary question item, the percentage of people with a monthly salary of less than RMB 4,500 who attach great importance plus importance is 53%, and the percentage of people with a monthly salary of less than RMB 4,500 who do not attach importance plus very little importance is 53.5%, indicating that people with a monthly salary of less than RMB 4,500 hold two extremes of opinions about hotel information privacy protection, with large differences and discrepancies. In the question of the reason for staying in artificial intelligence type hotels, the percentage of those who attach great importance plus importance to the vacation travel crowd is 48.3%, and the percentage of those who do not attach importance plus very little importance to the vacation travel crowd is 52.8%, indicating that the vacation travel crowd, the opinions held by the vacation travel crowd on the protection of hotel information privacy are two extremes, with large differences and discrepancies. In the question of how to know about Alibaba FlyZoo Future Hotel, the percentage of people who know about Alibaba FlyZoo Future Hotel through news and information is 75.7%, and the percentage of people who know about Alibaba FlyZoo Future Hotel through news and information is 65.5%, indicating that the percentage of people who know about Alibaba FlyZoo Future Hotel through news and information is 75.7%, and the percentage of people who don't pay attention and very much don't pay attention. The opinions of people who know about Alibaba FlyZoo Future Hotel through news and information are two extremes, with large differences and discrepancies. In the channel booking question, 59.4% of people who booked through Taobao flagship store attached great importance and attached great importance, while 72.9% of people who booked through Flying Pig platform did not attach importance and attached great importance, indicating that people who booked through Taobao flagship store cared more about hotel information privacy protection, while those who booked through Flying Pig platform did the opposite. In the question of room price, 90.4% of people who chose the price range of 999-1399 yuan attached great importance and attached great importance, while 100.9% of people who chose the price range of 999-1399 yuan did not attach importance and attached great importance, indicating that people who chose the price range of 999-1399 yuan held two extremes of opinions on the protection of hotel information privacy, with large differences and differences.

According to the Chi-Square test on security level, there are differences in the questions of monthly salary and how to know Alibaba FlyZoo Future Hotel. Among them, in the monthly salary question item, the monthly salary of 6001-7500 yuan people attach great importance plus importance accounted for 62.7%, the monthly salary of 4500 yuan people do not attach importance plus very little importance accounted for 39.4%, indicating that the monthly salary of 6001-7500 yuan people for hotel security degree is more important, the monthly salary of 4500 yuan or less people vice versa. In how to know Alibaba FlyZoo future hotel question item,

through the news information to know Alibaba FlyZoo future hotel crowd very important plus important accounted for 96.8%, through the news information to know Alibaba FlyZoo future hotel crowd do not pay attention plus very little attention accounted for 65.5%, indicating that through the news information to know Alibaba FlyZoo future hotel People's opinions on the degree of hotel security are two extremes, with large differences and variability.

According to the Chi-Square test on related facilities, there are differences in education level and how to know about Alibaba FlyZoo Future Hotel. Among them, in the question of education level, 83.9% of people with bachelor's degree attach great importance to the hotel and 94.9% of people with bachelor's degree do not attach importance to the hotel and 94.9% do not attach importance to the hotel, indicating that people with bachelor's degree have two extremes of opinions on hotel related facilities, and the differences are large and different. In the question of how to know Alibaba FlyZoo Future Hotel, the percentage of people who know Alibaba FlyZoo Future Hotel through news and information who attach great importance to it and attach great importance to it is 85.7%, and the percentage of people who know Alibaba FlyZoo Future Hotel through news and information who do not attach importance to it and attach great importance to it is 63.1%, indicating that the percentage of people who know Alibaba FlyZoo Future Hotel through news and information The people's opinions on hotel-related supporting facilities are two extremes, with large differences and variability.

Chi-Square test was conducted based on different question items on face recognition swipe check-in, with variability in gender, age stage, education level, from which region, monthly salary, frequency of stay, how to know Alibaba FlyZoo Future Hotel, channel booking, price room and other question items. Among them, in the question item of gender, the percentage of men who attach great importance plus importance is 64.4% higher than that of women who attach great importance plus importance, indicating that men care more about face recognition swipe check-in than women in this question item. In the question of age, the percentage of people aged 31~40 who attach great importance and attach importance is 49.3%, and the percentage of people aged 26~30 who do not attach importance and attach very little importance is 53.6%, indicating that people aged 31~40 care more about face recognition and check-in, and people aged 26~30 do not care more than people of other ages. In the question of education level, the percentage of people with high school education or below who attach great importance to face recognition and attach great importance to face recognition is 99.6%, while the percentage of people with bachelor degree who do not attach importance to face recognition and attach great importance to face recognition is 134.9%, indicating that people with high school education or below care more about face recognition in this question, while people with bachelor degree do the opposite. In the question from which region, 88.7% of the people in Northeast China attach great importance to face recognition and 49.1% of the people in South China do not attach importance to face recognition and 49.1% of the people in South China do not attach great importance to face recognition, indicating that the people in Northeast China care more about face recognition and the opposite in South China. In the question of monthly salary, 78.6% of people with income below RMB 4,500 pay more attention to face recognition and 54.9% of people with income between RMB 7,501 and 9,000 pay less attention to face recognition, indicating that in this question, people with income below RMB 4,500 pay more attention to face recognition and vice versa. In the question of frequency of hotel stay per year, 121.6% of people who stayed 1-3 times per year attached great importance to it and 82.7% of people who stayed 4-6 times per year did not attach importance to it and did not attach great importance to it, indicating that in this question, people who stayed 1-3 times per year cared more about face recognition face check-in and people who stayed 4-6 times per year cared the opposite. In the question of how to know Alibaba FlyZoo Future Hotel, the percentage of people who know about the hotel through search engine is 107.3%, and the percentage of people who know about the hotel through news and information is 70.1, indicating that in this question, people who

know about the hotel through search engine care more about face recognition, and those who know about the hotel through news and information care less. The opposite is true for those who learned about the hotel through news and information. In the channel booking question, 62.8% of people who booked by phone attached great importance to the hotel and 105.4% of people who booked through the Flying Pig platform did not attach importance to the hotel and did not attach great importance to the hotel, indicating that in this question, people who booked by phone cared more about face recognition and those who booked through the Flying Pig platform did not. In the question of room price, 149.7% of the people who chose the room price of 999-1399 yuan attached great importance to it, and 75.9% of the people who chose the room price of 1400-1632 yuan did not attach importance to it, indicating that in this question, the people who chose the room price of 999-1399 yuan cared more about face recognition, and the people who accepted the room price of 1400-1632 yuan did not. The opposite is true for those who accept the price range of RMB 1400-1632.

According to the Chi-Square test on AI depth experience, there are differences in the questions of monthly salary and how to know Alibaba FlyZoo Future Hotel. In the question of monthly salary, 59.4% of people with monthly salary between RMB7501-9000 paid much attention to the AI deep experience, and 58.8% of people with monthly salary below RMB4,500 did not pay much attention to the AI deep experience, indicating that people with monthly salary between RMB7501-9000 paid more attention to the AI deep experience, and people with monthly salary below RMB4,500 paid the opposite. In the question of how to know Alibaba FlyZoo Future Hotel, 64.2% of the people who learned about the hotel through search engine attached great importance to the hotel and 73% of the people who learned about the hotel through news and information did not attach importance to the hotel and attached very little importance to the hotel. The opposite is true for those who learned about the hotel through news.

Table 2. Table of Chi-Square Test(Significance)

	Technology Smart Check-in Experience	Quality of Service to Customers	Room Rate	Information Privacy Protection	Level of Security	Related Supporting Facilities	Face ID	AI Experience
Gender	49.305*	4.314	8.137	11.223*	4.249	2.942	43.188*	7.490
Age	141.352*	13.950	24.816	38.890*	20.688	25.261	95.599*	17.455
Education Level	229.115*	13.613	26.866*	29.988*	24.059	28.348*	153.941*	16.945
Area	183.432*	27.650	17.538	23.046	22.281	19.764	106.331*	21.814
Monthly Salary	182.048*	30.478*	21.438	57.754*	44.911*	24.017	95.513*	26.662*
Frequency of Hotel Stay Per Year	243.533*	13.549	15.572	14.628	15.244	7.320	75.297*	15.029
Reasons for Staying in Artificial Intelligence-Based Hotels Are	322.076*	27.795	34.167	44.071*	32.473	30.119	156.374*	26.220
How to Know Alibaba FlyZoo Future Hotel	214.177*	22.202	21.636*	27.980*	33.983*	22.229*	93.802*	24.069*
Booking Channel	243.634*	37.169*	32.559*	34.648*	23.544	12.836	250.822*	21.029
Room Rate	312.014*	10.096	18.050	29.729*	13.498	13.137	77.515*	15.673

5. CONCLUSION, LIMITATION AND EXPECTATION

5.1. Conclusion

In this paper, after research and data analysis, we understand the characteristics of the consumer group of artificial intelligence type hotels and the consumer group's selection intention. The main consumer groups of artificial intelligence type hotels have the following characteristics: 1. differentiated by age: adolescents or young and middle-aged people. 2. differentiated by gender: men are the main consumer groups. 3. differentiated by selection factors: people interested in advanced technology or AI intelligence. 4. differentiated by education: people with bachelor's degree or above are the main consumer groups.

Analysis of the selection intention of the consumer group of artificial intelligence type hotels: artificial intelligence type hotels are popular among young people or people who are interested in high-tech check-in experience at the beginning of development, and Alibaba's "FlyZoo" artificial intelligence type hotels have attracted a lot of attention from consumers from construction to opening. In a short period of two years, many hotels with artificial intelligence have opened and occupied almost full rooms, and Alibaba's "FlyZoo" hotel has more than 2,000 fans in its Taobao flagship store since the beginning of the Double 11 booking campaign, with sales data of about 400 rooms per month, which shows that consumers of artificial intelligence hotels choose this type of hotel. The mode tendency is higher. Through the analysis of the official booking platform and OTA platform evaluation of the artificial intelligence type hotel, the consumers after staying in the artificial intelligence type hotel for the stay experience evaluation rating is high, most of them said they are willing to stay again, a small number of consumers responded to the low cost performance.

5.2. Limitation

The researcher of this paper finds that there are still many shortcomings in himself and his research on the topic. Literature: the selected topic has less relevant literature, there is a serious gap in the relevant research literature, and it is more difficult to select secondary data for the topic. Theoretical aspects of the topic: the theoretical aspects are not systematic enough, the definition is vague, and the researcher is relatively unprofessional in summarizing some theoretical data. As for the survey data of the topic: during the questionnaire data collection, the data collection is more difficult, the respondents are less, and the direction of relevant survey data is not comprehensive enough.

5.3. Expectation

Based on the fact that the development of artificial intelligence-based hotels is in its infancy, the research on this hotel model is relatively small and involves imperfect related technologies. There are still many new research problems to be solved in the design and research of this paper, and many new research problems need to be solved in the actual observation and discussion. Future research on artificial intelligence-based hotels should be conducted from the perspective of consumers and business managers.

6. SUGGESTIONS

6.1 Clarify the consumer group

Clarify the main consumer market and consumer groups to accurately grasp the market positioning. The formation of consumer groups can provide a clear target for the market, so that artificially intelligent hotels can quickly identify customer groups. Through the division of different consumer groups, the market can be accurately subdivided, thus reducing the blindness of operation and reducing the risk of operation. Clearly artificial intelligence type

hotel its service consumer groups, it can be based on the main consumer groups of consumer psychology, the development of exclusive and correct marketing strategies and product focus, to improve the economic benefits of artificial intelligence type hotel this type of hotel model

6.2 Product promotion targeting

Artificial intelligence type hotel in the hotel and related product publicity should have a certain degree of relevance, advance relevant research and data survey. According to the different consumer groups and consumer markets to put forward the publicity plan for the group of people and consumer markets. Clarify the different consumer groups to understand what channels to rely on to understand the new information, for different access channels to carry out different publicity or advertising. Targeted product promotion plan is helpful for consumers to quickly understand the artificial intelligence hotel model and this type of major hotel brands.

6.3 Personalized face-to-face guest service

The traditional hotel model has many shortcomings but its personalization and uniqueness in the guest service cannot be surpassed by AI AI service for the time being. Artificial intelligence hotel AI artificial intelligence in the guest service should be constantly improved towards personalization, to provide guests with a relatively unique user experience. For example: Alibaba "FlyZoo" future hotel drinks guest evaluation taste good but due to AI AI modulation ratio is too uniform, it is recommended that the hotel AI AI can be adjusted according to consumer demand for certain ratio. Artificial intelligence hotel guest service personalization is conducive to establish a good hotel image among consumers and achieve competitive advantage in the consumer market.

6.4 Customer information security

Artificial intelligence type hotel in the booking check-in and check-out period are unassisted, by the consumer online booking orders submitted, to the store after the self-service check-in, so artificial intelligence type hotel in the protection of customer information security is particularly important, increase the security of customer information is also artificial intelligence type hotel related technology research in the top priority. Leakage of customer privacy information can bring serious harm to the hotel's reputation and future development, and serious leakage may bring criminal penalties.

ACKNOWLEDGMENTS

This paper was supported by 2022 General Project of the First Research Project on Huang Yanpei's Ideology of Vocational Education of China Vocational Education Society. (Grant Number: ZJS2022YB423)

REFERENCES

- [1] X.Y. Quan. Hotels take bent service countermeasures for individual psychological laws. Economic Forum Journal, vol.17 (2008), 87-89. (In Chinese)
- [2] L.L. Chen, B.S. Tong, Beijing International Youth Hostel consumer behavior characteristics study. Jiangsu Business Theory Journal, vol.4 (2010), 36-37. (In Chinese)
- [3] H.Y. Zhao. Smart hotel review. Low Carbon World Journal, vol.3 (2012), 54. (In Chinese)
- [4] R.R. Cai, T.T. Gu, H.L. Pan. Research on the current situation and development trend of Nanjing smart hotels. Foreign trade and economics Journal, vol.10 (2013), 62-64. (In Chinese)

- [5] Z. Li, J. Zhu. Smart hotel - the inevitable trend of hotel product upgrading. Journal of Zhenjiang High School, vol.1 (2011), 31-34. (In Chinese)
- [6] J.B. Tang. Smart hotel construction talk. Journal of economic research, vol.1 (2014), 292-294. (In Chinese)
- [7] S. Li. On the creation of "intelligent hotels" in the Internet era. Labor Security World Journal, vol.21 (2015), 55-57. (In Chinese)