The Influence of the Operation Mode of Immersive Art Exhibition in the New Media Era on the Audience's Consumption Willingness

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Abstract

With the rapid development of science and technology, the manifestation of art exhibitions has undergone tremendous changes. From the beginning, it was only a viewing experience with eyes, and now we can use VR, AR and other technologies to cooperate with the audience. To experience an art exhibition with the senses, this immersive way of viewing the exhibition greatly helps visitors to have a deeper understanding and understanding of the ideas and concepts of the art exhibition. This breaks the traditional viewing method, and immersive art exhibitions are on the scene. At the same time, there are new requirements for the operation mode of art exhibitions.

Since the immersive exhibition in my country is still in its infancy, and its operation model is still at a relatively elementary basis, this research aims to carry out the project site selection and layout design, sales, and service of immersive art exhibitions. Discuss and study how to efficiently operate immersive art exhibitions in the new media era. At the same time, combined with the literature analysis method, questionnaire survey method and case analysis method, the immersive art exhibition operation mode is studied, so as to provide an effective reference for workers in related fields and help the efficiency of related exhibition operation methods to be improved.

Keywords

immersive exhibition, operation mode

Chapter 1 Introduction

Research background and motivation

As early as 2010, Danish/Icelandic artist Olafur Eliasson and Chinese architect Ma Yansong collaborated on the immersive exhibition "Feeling is Real", the purpose of which is to use the thick artificial fog to map different The light of color makes the viewer walk in the fog and can actually feel walking from the fog of one color into the fog of another color, thus challenging the daily spatial orientation and stimulating the need to find new perception modes. (Anji B, 2010). "Feeling is Real" has greatly subverted the Chinese people's cognition of art exhibitions. Art exhibitions have changed from traditional viewing outside the exhibition to being an integral part of the art exhibition, which marks the official landing of the immersive art exhibition. China, and subsequently, immersive art exhibitions have also sprung up in China.

In 2013, artist Yayoi Kusama's exhibition "One of My Dreams" was held in Shanghai, which was the only stop in China of her Asian tour. Among them, the installation work "House of Infinite Mirrors" is a more representative immersive art work in the entire exhibition. By arranging various plane reflective media in a limited space, visitors can walk into this space and be immersed in a space where real and virtual spaces alternate. This way makes visitors seem to have entered a never-ending space. In the infinite space of the end (Jun H, 2014). In this exhibition, a large number of colored light points are suspended throughout the installation, and these light points can continuously change color, which enhances the sense of movement of the whole space, and at the same time surrounds the viewers of the exhibition, as if they were there Generally integrated into the entire exhibition space. Yayoi Kusama's immersive exhibitions are highly sought after due to their high popularity, and they have also brought immersive art exhibitions to the popularization of China.

In 2017, the immersive art exhibition "Flower Forest, Lost and Immersed" organized by the Japanese team teamLab was held in many places in China (Shijia O, 2021). Since teamLab is famous in the art world for holding immersive art exhibitions, once the entire exhibition was launched, it became very popular in China, and people rushed to the scene to watch the exhibition. This proves that immersive art exhibitions have been popularized in China and quickly accepted by the general public.

With the development of the whole country and society and the continuous progress of science and technology, people's demand for the spiritual world has gradually increased, and various cities in China are striving to create more and better cultural industry projects. In the past, visiting museums and entering art galleries, which seemed extravagant in the past, have become an indispensable part of people's lives in the era when material life is gradually satisfied and improved. At the same time, there are also different requirements for the viewing method and experience of exhibitions and exhibits. However, as far as the current domestic art exhibitions are concerned, the overall level of art exhibitions is mixed, and those that are too academic are often boring and unpopular, and too entertaining. The exhibition will make visitors ignore the artistic idea of the exhibition theme itself. Therefore, Qi Sheng (2020) believes that in the context of the current new era of rapid technological development, it is possible to combine diversified new media digital technologies to make an exhibition design and planning more lively and interesting, and to provide services that meet the diversified needs of modern public aesthetics. Displaying the experience space is a valuable and imminent thing. The early exhibitions that were simply viewed from the outside were already a little boring, but immersive art exhibitions using diversified technologies can not only bring the audience an immersive viewing experience, but also allow the audience to join the exhibition and create together. Whether it is the viewer, the artist or the exhibition itself, the possibilities are endless. Therefore, this immersive art exhibition is the future development trend and the key to transformative innovation in art exhibitions.

However, at present, the research on immersive art exhibitions in my country is still at a relatively basic stage. By consulting the literature, it can be found that most of the research topics are about the exhibition content of the immersive exhibition itself or a certain immersive art for a famous artist. The artistic expression of the exhibition is studied. In order to better promote and develop this exhibition method, it is necessary to conduct in-depth research on its marketing model, so that immersive art exhibitions can develop in China in the long run.

Research questions and hypotheses

According to the elaboration of the content of the previous section, a specific question is derived as follows: Does the operation mode of immersive art exhibitions in the new media era have a direct impact on visitors' attitudes towards art exhibitions?

From this question, several topics that need to be discussed are derived, as follows:

1. Does the background information of visitors have an impact on the interest of the exhibition?

2. Do visitors' expectations for immersive art exhibitions affect exhibition acceptance?

3. Does the visitor's interest in immersive art exhibitions affect the acceptance of the exhibition?

Research value

At present, due to the rapid development of science and technology, the level of new media technology has also been rapidly improved, and people's needs for the spiritual level are constantly increasing, which also makes people's requirements for art exhibitions to a higher level. Starting from the immersive art exhibition itself, its operation mode is becoming more and more rich and avant-garde. However, from the overall point of view, the current level of domestic immersive art exhibitions and operations are uneven, and the traditional external exhibition design can no longer satisfy the audience's sense of visual experience and the artist's personal desire for expression. It also no longer helps the exhibition run better. In order to make future immersive art exhibitions a more acceptable and standardized operation model for audiences, the author hopes to investigate the audience of immersive art exhibitions through quantitative research, so as to carry out the operation mode of immersive art exhibitions. The research hopes to help more people in related fields to effectively develop immersive art exhibitions.

Chapter 2 Research Focus

Research Objective

Research Objective 1: To investigate the relationship between basic information and acceptance.

Research Objective 2: To investigate the relationship between attitude and acceptance.

Research Objective 3: To investigate the relationship between expectation and acceptance.

The Research Hypothesis

H1 Basic information have a positive impact on acceptance.

H2 Attitude have a positive impact on acceptance.

H3 Expectation have a positive impact on acceptance

The Benefits of the Research

The research on the influence of the operation mode of immersive art exhibition in the new media era on the

audience's consumption willingness has several benefits. Firstly, it can help art institutions and curators to understand the audience's preferences and behavior towards immersive art exhibitions, which can assist in the development of more engaging and attractive exhibitions. Secondly, the research can provide insights into the impact of new media on art consumption, which can help artists and institutions to adapt and innovate their practices to meet the changing demands of audiences. Thirdly, the research can contribute to the overall understanding of the role of art in society and its ability to engage and inspire people, which is critical for the growth and sustainability of the art industry.

The Scope of the Research Study

The scope of the research study on the influence of the operation mode of immersive art exhibition in the new media era on the audience's consumption willingness is significant. It can provide a comprehensive understanding of the factors that influence the audience's willingness to consume immersive art exhibitions. The study can also help to identify the most effective operation modes for immersive art exhibitions in the new media era, which can assist art institutions and curators in developing more compelling exhibitions. Additionally, the research can contribute to the overall understanding of the intersection between art and technology and the impact of digital media on art consumption, which is critical for the growth and development of the art industry. Finally, the study can provide insights into the audience's preferences and behavior towards immersive art exhibitions, which can assist in the development of more engaging and attractive exhibitions that can attract a wider audience.

The Limitation of the Research

One limitation of the research on the influence of the operation mode of immersive art exhibition in the new media era on the audience's consumption willingness is the potential for a biased sample. The study may only include participants who are already interested in immersive art exhibitions, which may not reflect the broader population's attitudes towards these exhibitions. Additionally, the study may not account for cultural or socioeconomic factors that may influence the audience's consumption willingness. Another limitation is the focus on the new media era, which may not capture the full range of immersive art exhibitions' history and development. Finally, the study may not account for the potential impact of external factors such as the COVID-19 pandemic, which may have changed the audience's attitudes and behavior towards immersive art exhibitions.

Further Research

Firstly, a comparative study of immersive art exhibitions across different regions and cultures can provide insights into the impact of cultural factors on the audience's consumption willingness. Secondly, a longitudinal study can track the changes in the audience's attitudes and behavior towards immersive art exhibitions over time, including the impact of external factors such as pandemics or economic downturns. Thirdly, a study that examines the impact of immersive art exhibitions on the audience's emotional and cognitive responses can provide a deeper understanding of the art form's potential to engage and inspire people. Finally, a study that explores the commercial viability of immersive art exhibitions can provide insights into the industry's growth potential and future trends.

Chapter 3 Literature Review

The term immersive art is translated from the word Immersion, which originally appeared as a type of art used in the field of theater. It integrates lighting, music, performance, experiment, film and television, smell, touch and other new exhibition methods. It is also the product of the continuous development and maturity of technology. It aims to create an exhibition space where the audience can experience To experience the exhibition in its own environment (Shijia O, 2021). Therefore, in the current era of rapid development of new media, the public is no longer simply satisfied with the visual experience of art exhibitions. People better hope to experience art exhibitions through sound, touch, smell, lighting, etc.

The immersion industry has also developed in China for 7 years. In 2019, the total output value of China's immersion industry reached ￥4.82 billion (RMB). From 2018 to 2019, the total number of global immersive experience projects reached 8,058, spanning 12 industries and 258 types of formats; China's immersive industry started with the large-scale situational experience drama "See Pingyao Again" directed by Wang Chaoge in 2013. , currently involving 12 major industries and 34 types of formats (Yujie S, 2021). From these data, it can be found that the immersive industry has considerable future development both internationally and in China.

Under the current development of my country's art industry, immersive art exhibitions are nestled under new media. In the past two years, due to the rapid development of new media, an "immersive" experience has gradually emerged. Media Evolution is a theory that compares media to human beings and explains it with reference to the theory of human evolution. The main research direction of this theory refers to “the dynamic sequence structure process of the gestation, emergence, development, fusion and demise of various media in the entire media system, as well as the related structural states such as competition, interaction, and symbiosis between different media (Jingwen S, 2018). This means that when the media evolves to a certain level, a new state is derived. This state helps the entire exhibition space to be related and integrated with the human body. The higher the degree of integration, the better the experience of the exhibition will be. Well, then this also shows that the construction and selection of the entire exhibition space is very important in the process of exhibition operation.

Exhibitions are a very critical operation and management work of art museums. The operation of exhibition projects is actually a process of integrating artistic creation and public acceptance. Art museums are the core institutions for the realization of integrated development, carrying the responsibility of cultural promotion (Jiyong W, 2019) . Reasonable design of the new media immersive art exhibition venue will improve the happiness of the experiencers, so whether the overall layout of the art museum integrates the culture of the entire art exhibition with the exhibition itself, and whether the design of the art exhibition itself is consistent with the entire exhibition. The effective combination of immersive experience is also an important part of the operation process.

From the perspective of monographic works, there are currently few works on immersive art exhibitions in my country, and only a few art works contain related words such as "immersion" or "immersion". For example, the "Law of Design" co-authored by Lidwell, Horton, and Butler in the United States explained Immersion using flow theory (Sheng Q, 2020). Therefore, my country's current research on "immersion" is still relatively limited. The current situation in my country is that the development of the operation mode of immersive art exhibitions lags behind the market's demand for immersive art exhibitions. There is a large re-

search gap in this aspect.

In a word, immersive literature research found that immersive art exhibitions have been in the discussion of their nature, exhibition setting and improvement. This kind of discussion is relatively rudimentary, and in today's new media era, we need to know more How to better operate an immersive art exhibition, so the main goal of this research is to conduct research on the operation mode of immersive art exhibitions based on the three dimensions of visitors, expectations and acceptance.

Chapter 4 Methods

This research aims to study the marketing mode of immersive art exhibition, what kind of marketing mode strategy can effectively meet the expectations of visitors for the exhibition and improve the acceptance of the exhibition, the environment of the exhibition and the design of the exhibition to experience the art exhibition whether it has a direct impact. In order to gain a deeper understanding of the audience's psychology and behavior during the research process, the research plan uses a questionnaire to conduct a survey on the audience, so as to analyze the data collected from the questionnaire and achieve the established research purpose.

Research Framework

Based on the previous discussion on the literature, the research structure of this research is shown in Figure 1. The purpose of this research is to study the operation mode of immersive art exhibitions, so the overall framework of the research is based on the basic information of the respondents and their opinions on art The significance of the investigation and research between the expectations and acceptance of the exhibition is whether the basic condition information of the visitors has a direct impact on the acceptance of the immersive art exhibition operation mode. In the process of this influence, the marketing mode of the exhibition itself should be What optimizations take place for audience acceptance to change.

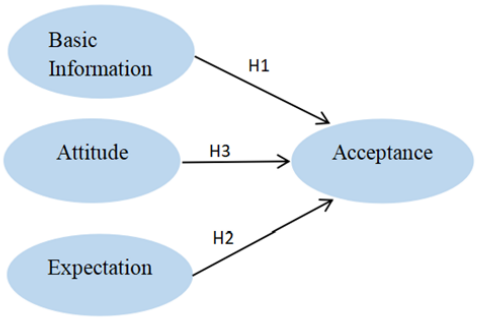


Figure 1 research framework

Assumption

H1: Does the background information of visitors have an impact on the interest of the acceptance?

H2: Do visitors' expectations of immersive art exhibitions affect exhibition acceptance?

H3: Does the degree of visitor interest in immersive art exhibitions affect exhibition acceptance?

Research process design

The main process of this research is to first understand the research background and then find the research motivation. Secondly, through the in-depth interpretation and analysis of the existing literature in this research, the corresponding questions are raised and the research purpose is clarified. After that, the relevant literature is discussed, the research objectives are established from the previous research literature, the research framework is established, and the research hypothesis is designed. Finally, a questionnaire is designed and distributed to the target population. After the questionnaire is collected, the data is effectively analyzed, and the research conclusion is drawn through the analysis results, Shown in Figure 2.

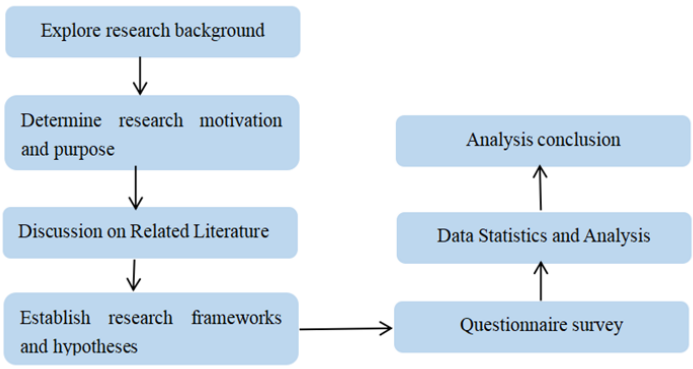


Figure 2 research process

Sampling method

Since the content of this study is about the operation mode of immersive art exhibitions, and my country is currently vigorously promoting the development of the cultural industry, as a direct carrier of artistic ideas for the popularization of art culture - art exhibitions, it targets a relatively wide range of people. It should not be constrained by personal backgrounds such as age and occupation, so this research sample is aimed at all people who can normally watch and experience art exhibitions.

The sampling method of this study adopts the method of simple random sampling. After the overall observation of the data, representative data is selected for targeted research.

Questionnaire design

The design of the questionnaire is mainly divided into three dimensions: personal information, audience expectation and audience acceptance. The setting of these three dimensions mainly considers that they directly affect the decision makers' choice of marketing mode, and also reflects whether an art exhibition is not. A dimension that is widely accepted by the public.

In the basic information part, we mainly investigate the age, gender, education level, employment situation and monthly income of the respondents. We mainly want to know whether the basic information of the visitors can directly affect the immersion through the investigation of these parts. acceptance of art exhibitions.

In the part of attitude towards interactive immersive exhibitions, we mainly surveyed from the frequency of visits, the attention of immersive art exhibitions, the focus of attention, and the preferred art exhibition mode. This design is designed to understand the respondents more comprehensively. Interest in immersive art exhi-

bitions and the channels through which they learned about immersive art exhibitions.

Finally, the questionnaire surveys the audience's expectations and acceptance through the five-scale scale, because through the five-scale scale, we can more intuitively see the audience's expectations and acceptance of immersive art exhibitions in the questionnaire results.

Statistical methods

The data collected from the questionnaires will be analyzed using IBM SPSS software. Through the questionnaires of respondents of different age groups, incomes and backgrounds, effective data processing and analysis will be carried out on the marketing model and acceptance of immersive art exhibitions.

Reliability and validity

Reliability and validity represent the parameters of questionnaire reliability, stability, and whether it achieves the researcher's expected effect, respectively. The higher the reliability coefficient, the higher the reliability and stability. In the usual research, when the reliability value reaches 0.6, it can be judged that the questionnaire is reliable (Ru Pengxin& Zhang Peng, 2011). In order to ensure the authenticity and reliability of the research results, this study needs to conduct reliability and validity analysis.

Chapter 5 Data Analysis

Narrative Statistical Analysis

The questionnaire survey method is a questionnaire designed by the investigators according to the content of their personal research. Because the art exhibition is aimed at a wide range of people, there are no restrictions on age, gender and occupation, so the target population of this questionnaire is not framed or restricted. The questionnaires were distributed through the Questionnaire Star website, and a total of 109 questionnaires were returned. Through the analysis of the questionnaire, the research on the public's acceptance of the immersive art exhibition operation mode, so as to find a more suitable operation mode for the immersive art exhibition. The main steps of implementing the questionnaire survey method are: 1. Determine the survey objectives and contents. 2. Select the questionnaire distribution platform. 3. Determine the target quantity of recycled material. 4. Design a questionnaire. 5. Distribute the questionnaire to the Questionnaire Star platform. 6. Recover questionnaire data. 7. Analyze the questionnaire data.

In this study, according to the valid questionnaires collected and sorted, the gender ratio, age distribution, identity ratio, education level ratio and monthly income status distribution of the respondents can be obtained. Among the respondents, men accounted for 44.0% of the total number, and women accounted for 56.0%. In the age part, there are relatively more respondents aged 21-30, accounting for 63.6% of the total, followed by respondents aged 31-40, accounting for 26.3% of the total. Most of the respondents were company employees, accounting for 52.3% of the total, followed by students, freelancers and public institutions/civil servants/government workers, accounting for 45.9% of the total. In terms of educational attainment, most of the respondents have a bachelor's degree, accounting for 56.9% of the total, followed by technical secondary school and junior college, accounting for 23.9% of the total, and only 10.1% have a master's degree. In terms of monthly income, most of the respondents have a monthly income of 5,001-10,000, accounting for 30.3%, followed by 2,000-5,000, accounting for 23.9% of the total.

Table 3 basic data of the respondents to the questionnaire

Basic Information		Frequency	Effective Percentage（%）
Gender	male	48	44.0
	female	61	56.0
Age	less than 20	7	7.1
	21-30	63	63.6
	31-40	36	26.3
	greater than 41	3	3.0
Identity	student	18	16.5
	freelancers	17	15.6
	staff	57	52.3
	institutions/civil servants/ government staff	15	13.8
	unemployed	1	0.9
	other	1	0.9
Education Level	primary school level	1	0.9
	secondary school level	8	7.3
	Technical secondary school/ college level	26	23.9
	undergraduate degree	62	56.9
	master's degree	11	10.1
	PhD level	1	0.9
Monthly Income	less than 2000	12	11.0
	2000-5000	26	23.9
	5001-10000	33	30.3
	10001-15000	21	19.3
	15001-20000	13	11.9
	greater than 20000	4	3.7

Difference analysis

Chi-square analysis

H0: No difference between gender and interest in art exhibitions ($P>0.05$).

H1: There is a difference between gender and interest in art exhibitions ($P<0.05$).

Table.4 between gender and interest in art exhibitions

			Interest in art exhibitions			Total
			No interest at all	Slight interest	I like it very much	
Gender	Male	count	2	37	9	48
		percent in gender(%)	4.2%	77.1%	18.8%	100.0%
	Female	count	7	39	15	61
		percent in gender(%)	11.5%	63.9%	24.6%	100.0%
Total		count	9	76	24	109
		percent in gender(%)	8.3%	69.7%	22.0%	100.0%

（p=0.244）

As shown in the table, through the chi-square test, the p value is 0.244>0.05, accepting H0, showing no difference, that is, there is no difference between gender and the degree of interest in art exhibitions.

H0: There is no difference between gender and the most concern about the exhibition is whether the venue is clean and tidy (P>0.05)

H1: There is a difference between gender and the main focus of the exhibition on whether the venue is clean and tidy (P<0.05)

Table.5 between gender and the main focus of the exhibition

			Is the venue clean and tidy?		Total
			unchecked	checked	
Gender	Male	count	18	30	48
		percent in gender(%)	37.5%	62.5%	100.0%
	Female	count	41	20	61
		percent in gender(%)	67.2%	32.8%	100.0%
Total		count	59	50	109
		percent in gender(%)	54.1%	45.9%	100.0%

（p=0.002）

As shown in the table, through the chi-square test, the p value is 0.002 < 0.05, accepting H1, showing a difference, that is, there is a difference between gender and the most concerned point of the exhibition is whether the venue is clean and tidy. According to the data, men pay more attention to whether the exhibition hall is clean and tidy when viewing exhibitions.

In terms of the content of the exhibition itself and the products surrounding the exhibition, gender has no significant effect on it.

H0: There is no difference between the degree of interest in art exhibitions and the degree of expectations for art exhibitions (P>0.05)
H1: There is a difference between the degree of interest in art exhibitions and the degree of expectations for art exhibitions (P<0.05)

Table.6 Interest and expectations for art exhibitions

			I look forward to receiving artistic edification and improving aesthetics from immersive art exhibitions				Total
			Disagree	Generally	Agree	Strongly Agree	
Interest in art exhibitions	no interest at all	Count	2	5	2	0	9
		the percent of interest in art exhibitions	22.2%	55.6%	22.2%	0.0%	100.0%
	have a little interest	Count	2	16	37	21	76
		the percent of interest in art exhibitions	2.6%	21.1%	48.7%	27.6%	100.0%
	like it very much	Count	0	3	12	9	24
		the percent of interest in art exhibitions	0.0%	12.5%	50.0%	37.5%	100.0%
Total		Count	4	24	51	30	109
		the percent of interest in art exhibitions	3.7%	22.0%	46.8%	27.5%	100.0%

（p=0.038）

As shown in the table, through the chi-square test, its p value is 0.038 < 0.05, accepting H1, showing no difference, that is, the degree of interest in art exhibitions and the degree of expectation for art exhibitions are different.

From the above results, it can be concluded that the background information of the respondents did not significantly affect their level of interest in art exhibitions.

Respondents' interest in art exhibitions has an impact on their expectations for immersive art exhibitions. The greater their interest in art exhibitions, the more they expect to receive artistic edification from immersive art exhibitions and improve their aesthetics.

t-Test

Independent Samples t-Test

H0: There is no difference in the focus of different ages in the process of visiting the exhibition (P>0.05)

H1: There are differences in the focus of different ages in the process of visiting exhibitions (P<0.05)

Table.7 the focus of different ages in the process of visiting exhibitions

	Age	Number of Casese	Mean Standard	Deviation Standard	Error Mean	t-value	p-value
Exhibit content, exhibition design, venue design	less than or equal to 30	70	0.74	.440	.053	1.881	.006**
	greater than 30	29	0.55	.506	.094		
Exhibition peripheral products and derivatives	less than or equal to 30	70	0.63	.487	.058	-1.246	.005**
	greater than 30	29	0.76	.435	.081		
Is the venue clean and tidy?	less than or equal to 30	70	0.46	.502	.060	-0.540	.711
	greater than 30	29	0.52	.509	.094		

P<0.05—*There is a difference P<0.01—**Significant difference P<0.001—***Very significant difference

As shown in the table, if the age of all the respondents is divided into two parts: less than or equal to 30 years old and greater than 30 years old, according to the T-test results, people of different age groups are not interested in the content of exhibits, exhibition design, venue design and exhibition peripheral products, Derivatives $p < 0.01$, so different ages have significant differences in the focus of interactive art exhibitions.

One-Sample t-Test

Respondents' acceptance of immersive art exhibitions

H0: The respondents' acceptance of immersive art exhibitions is less than 3 (P>0.05)

H1: Respondents' acceptance of immersive art exhibitions is greater than 3 (P<0.05)

Table.8 Respondents' acceptance of immersive art exhibitions

	Number of Cases	Average Value	Standard Deviation	Standard e Error Mean
Acceptance of Immersive Art Exhibitions	109	3.97	.739	.071
	t	degrees of freedom	Sig	Mean Difference
Acceptance of Immersive Art Exhibitions	13.746	108	.000	.972

p=.000<.001, Acceptance H1: Respondent's acceptance of immersive art exhibition is greater than 3

Explanation: Set H0 to be dissatisfied and H1 to be satisfied. The test value is 3 and the mean is greater than 3, so we accept the setting of H1; because the mean is greater than 3, most respondents are satisfied with the immersive art exhibition.

One-way variance

H0: There is no difference in the attention to information related to interactive immersive art exhibitions at different ages (P>0.05)

H1: There is no difference in the attention to information related to interactive immersive art exhibitions at different ages (P<0.05)

Table.9 Different ages pay attention to information related to interactive immersive art exhibitions

Age	number of cases	average value	standard deviation	standard error	minimum	maximum value	F	P
less than 20	7	2.29	.756	.286	1	3		
21-30	63	2.11	.553	.070	1	3		
31-40	26	1.85	.549	.108	1	3	2.743	.047*
greater than 40	3	1.67	.000	.000	1	1		
total	99	2.04	.576	.058	1	3		

P<0.05—*There is a difference P<0.01—**Significant difference P<0.001—***Very significant difference

As shown in the table, in terms of age and attention to interactive immersive exhibition information, tested by variance analysis, P(.047*)<0.05, there is a difference, which is in line with H1. Therefore, there is no difference in the attention to information related to interactive immersive art exhibitions at different ages. The possible reason is that as people get older, they will face more and more trivial work and life. Therefore, people over 30 years old do not have enough free time to focus on other things.

Related Analysis

Question 1: Is the frequency of visiting art exhibitions related to the level of interest in immersive art exhibitions?

H0: There is no correlation between the frequency of visiting art exhibitions and the level of interest in immersive art exhibitions.

H1: The frequency of visiting art exhibitions is related to the level of interest in immersive art exhibitions.

The statistical results show that p=.000<0.05, so the frequency of visiting art exhibitions is related to the degree of interest in immersive art exhibitions.

Question 2: Is the level of interest in immersive art exhibitions related to acceptance of immersive art exhibitions?

H0: There is no correlation between the level of interest in immersive art exhibitions and the acceptance of immersive art exhibitions
H1: There is a correlation between the level of interest in immersive art exhibitions and the acceptance of immersive art exhibitions

According to the statistical results, the significance p=.021<0.05, so H1 is established, and the degree of interest in immersive art exhibitions is related to the acceptance of immersive art exhibitions.

Question 2: Is the level of interest in immersive art exhibitions related to expectations for immersive art exhibitions?

Table.10 Ralated Analysis

		Visit Frequency	Interest Level	Expectation Level	Acceptance
frequency of visits	Pearson correlation	—	.459**	.083	.122
	Significance (two-sided)		.000	.390	.205
level of interest	Pearson correlation		—	.262**	.220*
	Significance (two-sided)			.006	.021
Expectation	Pearson correlation			—	.501**
	Significance (two-sided)				.000
Acceptance	Pearson correlation				—
	Significance (two-sided)				

H0: There is no correlation between the level of interest in immersive art exhibitions and expectations for immersive art exhibitions.

H1: There is a correlation between the level of interest in immersive art exhibitions and the degree of expectation for immersive art exhibitions.

According to the statistical results, the significance p=.006<0.01, so H1 is established, and there is a significant correlation between the degree of interest in immersive art exhibitions and the degree of expectation for immersive art exhibitions.

Factor Analysis

Table.11 Factor Analysis

facet	item	Factor Loading	Related Statistics
Expectation	3.1 I expect to learn art knowledge and expand art horizons from immersive art exhibitions. The experience of immersive art exhibitions is very good	.741	KMO value 0.823 X2=524.509 (df 91) Eigenvalue 5.217 Explained Variation 37.265%
	3.2 I expect to receive artistic edification and improve aesthetics from immersive art exhibitions	.593	
	3.3 I expect artistic exchanges from immersive art exhibitions	.737	
	3.4 I expect to get creative inspiration from immersive art exhibitions	.699	
	3.5 I expect mood regulation from immersive art exhibitions	.774	
	3.6 I expect to satisfy curiosity from immersive art exhibitions	.821	
	3.7 I expect the content of immersive art exhibitions to become more accessible and more popular	.642	
	3.8 I expect the ticket price of the immersive art exhibition to be more affordable	.618	
Acceptance	4.1 Compared with ordinary art exhibitions, immersive art exhibitions feel better	.734	Eigenvalue 1.436 Explained Variation 10.258%
	4.3 Immersive art exhibitions enrich the form of art experience	.647	
	4.4 Immersive art exhibitions stimulate the audience's sensory activities	.608	
	4.5 The immersive art exhibition increases the audience's sense of participation in the exhibition	.647	
	4.6 Compared with ordinary art exhibitions, immersive art exhibitions feel better	.734	
	4.7 If there is a good immersive art exhibition, I am willing to recommend it to my friends and relatives	.594	
		Cumulative explained variance: 47.523%	

In this study, the chi-square value of the Bartlett sphere test for factor analysis was 0.000, which was up to the standard (P<0.05); and the KMO value was 0.823, indicating that the scale was suitable for factor analysis. The cumulative explained variance is 47.523%. In Table 4-8, it is named by the factor loading exceeding 0.5. The results are as follows:

Expectation: In this factor, there are 8 questions when the factor loading exceeds 0.5. There are 8 questions that tend to be expected, hence the name.

Acceptance: In this factor, there are 8 questions when the factor loading exceeds 0.5. There are six questions that are biased towards acceptance, hence the name.

Regression analysis

Table.12 regression analysis

	Unstandardized coefficients		Standard coefficient	t	p	collinearity	
	B	standard error	Beta			Tolerance	VIF
(constant)	1.862	.114		16.344	.000		
painting	.096	.103	.091	.939	.350	.907	1.102
photography	.083	.103	.075	.809	.420	.979	1.021
Installation art	-.057	.102	-.053	-.557	.578	.919	1.088
Sculpture	.307	.107	.288	2.862	.005	.831	1.203
ceramics	.073	.113	.066	.643	.522	.792	1.263
calligraphy	.082	.130	.066	.633	.528	.781	1.280
other	.305	.377	.077	.807	.422	.932	1.073
Overall model	R^2=.149 adj R^2=.090 F(7,108)=2.534（p=.019）						

Through chart analysis, P=0.019**<0.05, so it shows that the respondents' interest in art exhibitions and their preferred art exhibition forms have a significant impact.

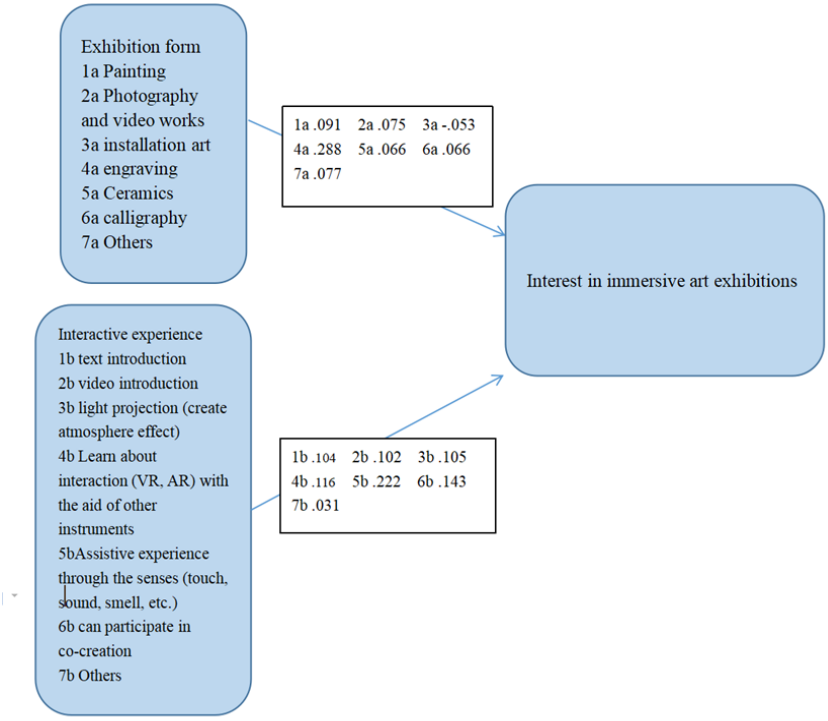
Table.12 regression analysis

	Unstandardized coefficients		Standard coefficient	t	p	collinearity	
	B	standard error	Beta			Tolerance	VIF
(constant)	1.811	.118		15.351	.000		
Text description	.051	.104	.046	.491	.624	.940	1.064
Video introduction	.018	.102	.017	.180	.857	.916	1.091
Light projection (create ambience effect)	.148	.105	.136	1.407	.163	.869	1.151
Learn about interactions with the aid of other instruments (VR, AR)	.125	.106	.116	1.185	.239	.851	1.176
Assistive experiences through the senses (touch, sound, smell, etc.)	.238	.107	.222	2.237	.027	.829	1.207
Can participate in co-creation	.222	.159	.143	1.390	.167	.768	1.301
other	.170	.515	.031	.331	.741	.961	1.041
Overall model	R^2=.175 adj R^2=.175 F(7,108)=3.055（p=.006）						

Through chart analysis, P=0.006**<0.05, so it shows that the respondents' interest in art exhibitions and the

interactive experience they like have a significant impact.

Path Analysis



Chapter 6 Conclusion

H1: Does the background information of visitors have an impact on the interest of the acceptance?

H2: Do visitors' expectations of immersive art exhibitions affect exhibition acceptance?

H3: Does the degree of visitor interest in immersive art exhibitions affect exhibition acceptance?

Based on the questionnaire survey data of the respondents, this research understands the basic situation of the respondents, and draws relevant conclusions after analyzing the public's attitudes, expectations and acceptance of immersive art exhibitions. The questionnaire found that the background information of the respondents had a certain influence on their expectations and acceptance of immersive art exhibitions.

First of all, people of different genders have different interests and concerns in immersive art exhibitions. In the operation of immersive art exhibitions, the links of the exhibition should be designed for different genders. Boys are more interested in the content of the exhibition itself. In addition to being interested in the content of the exhibition, girls also like to pay attention to the peripheral products of the exhibition, because there are various styles of accessories, postcards and mobile phone cases in the peripheral products of the exhibition. Thinking girls are very tempting. Therefore, in terms of exhibition peripheral products, we can consider increasing the research and development ratio of women's products in the design process. People of different age groups have different concerns about the exhibition, so during the operation of the immersive art

exhibition, according to the needs of people of different ages for the immersive art exhibition, a corresponding curatorial plan can be formulated, so that the whole The public acceptance of the exhibition has become higher.

Secondly, the frequency of visiting art exhibitions is also related to the degree of interest, expectation and acceptance. The frequency of visiting exhibitions has a corresponding positive impact on the degree of interest, expectation and acceptance. Therefore, immersive art exhibitions should increase the corresponding penetration rate, so that people can better understand the exhibition itself, experience more of this type of art exhibition, or implement a membership discount system. Corresponding services, such as discounts on ticket prices, access to exhibition information at any time, discounts on the purchase of art exhibition peripheral products, etc., not only provide better services to some people who are more interested in art exhibitions, but also provide better services. Become a marketing tool to attract more customers who are not very familiar with the exhibition, make them interested in the exhibition, and increase their acceptance of the exhibition.

Finally, visitors' expectations of immersive art exhibitions have an impact on exhibition acceptance. Expectation and acceptance are two interrelated dimensions. Through the survey, it was found that the higher people's expectations for exhibitions, the corresponding acceptance of exhibitions. The higher the survey results, the more people who have high expectations for exhibitions are those who are interested in immersive art exhibitions, and with the degree of interest, they are more receptive to immersive art exhibitions. According to this result, we can draw from Maslow's Hierarchy of Needs theory that the operation process of immersive art exhibitions should meet the needs of customers to a certain extent according to the viewpoints put forward by the theory. Understand the expectations in detail, and divide the expected content into layers, and realize them from low to high. Only in this way can the entire operation model be better continued by satisfying the basic needs of customers.

In short, the operation mode of immersive art exhibitions should be based on the perspective of the audience, and the corresponding operation mode should be formulated according to the needs and preferences of audiences with different backgrounds. The peripheral products and other parts of the immersive art exhibition can only have a better future development if the customer's needs can be effectively met in these parts and the customer can achieve a higher acceptance.

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