

Analysis of influence of Jinxiu handicraft immersive experience on purchase action in AIDMA model -- based on SPSS21 and AMOS23 software

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Abstract. In order to promote the protection, inheritance, innovation and development of shanxi folk intangible cultural heritage and solve the back-end marketing problems, questionnaire survey and field investigation were used to understand the marketing problems of Shanxi Embroidery handicrafts, combined with AIDMA model analysis. This paper attempts to construct a quaternary immersive experience model of "museum + guide + experience store + sales store". SPSS21 and AMOS23 software are used to demonstrate the questionnaire data, and the final empirical results are obtained. The results show that the immersive experience model has a significant positive effect on consumers' purchasing actions, and has varying degrees of influence on attracting attention, arousing interest, generating demand and desire, and forming memory, especially on attracting attention. The results show that the immersive experience is suitable for the marketing of Shanxi Jin embroidery handicrafts, and this model provides a new idea for the marketing of shanxi intangible cultural heritage-related cultural and creative products.

Keywords: In Embroidery handicrafts; Immersive experience; AIDMA model; Marketing strategy; purchases.

Currently, the immersive experience has been widely used in many industries, such as education, tourism, culture, entertainment, clothing, etc.,

There are physical immersion, virtual immersion, virtual and real mixed immersion and other ways of [1], to meet the various needs of consumers and enhance consumer experience. Immersive experience attracts customers in a novel way, creates them in the set scenarios, stimulates their demands and forms memories, and ultimately encourages customers to take purchasing actions. Although the immersive experience has been successfully applied in multiple fields, it is still rare in the marketing of intangible cultural heritage-related products.

in recent years, Shanxi Province attaches great importance to the development of cultural industry, In the critical period of the transformation of the cultural industry, Although through the establishment of cultural industrial parks, "intangible cultural heritage" ancient streets and other ways to protect and publicize, The marketing model of intangible cultural heritage handicrafts lacks innovation and integrity, withal, In order to effectively explore the new paths of intangible cultural heritage marketing, This article takes the immersive experience marketing of Jin embroidery handicrafts as an example, Borrowing from the methods of questionnaire survey and fieldwork, Based on the AIDMA model, Analyze whether the marketing model of "museum + guide + experience store + sales store" can positively affect customers to take purchase actions, Effectively solve the back-end sales problem of intangible cultural heritage handicrafts.

1. Situation analysis

So far, Shanxi embroidery national and provincial genetic bearing and arts and crafts masters founded as many as 20 enterprises, through the numerous Zhi jin embroidery, wild goose embroidery, tang embroidery workshop, city, heap silk, and embroidery, gaoping embroidery live and municipal representative project for the field investigation, the project covers many level, area,

has a certain representative. For embroidery market, the main common problems through field investigation: 1) weak market competitiveness, lack of product innovation, low quality management ability, lack of brand management and marketing communication awareness; 2) market chaos, lack of unified management and planning, uneven product quality, lack of standards; 3) immature industrial chain, commodity embroidery system is not perfect.

In view of the above questions, the article puts forward the mode of immersive marketing experience, and verifies the feasibility of the mode through questionnaire survey, trying to help craftsmen realize asset-light operation [2].

2. Theoretical basis and research hypothesis

2.1 Immersive experience

"Immersive experience" is also called immersion theory, which is based on people's experience. Through physical immersion and psychological immersion, people can achieve a state of selflessness and completely immerse themselves in something or scenes in [3]. Chickson Miry believes that the key to customer immersion is the balance between "challenges" and "skills". In other words, when setting the immersive experience mode, adjust the difficulty of the experience according to the skills of the participants to achieve the purpose of immersion.

At present, the immersion industry is developing rapidly and permeates every aspect of people's lives. In view of the current development status of the immersion industry, "Everything can be immersed." Huajian scholars believe that immersive experience has been deeply penetrated into the level of innovation mechanism of a country and a city on [4]; National intangible cultural heritage of Yunnan Bai nationality tie-dyeing skills, Using the marketing method of intangible cultural heritage experience, Attracting a large number of Chinese and foreign tourists, And drive the marketing of peripheral products, To some extent, it promotes the inheritance of intangible cultural heritage, Enhance the sense of national cultural identity; Hangzhou Listening Culture Creative Co., Ltd. adopts a small lecture + marketing, By making consumers aware of the culture, To sell the self-designed products, Expand the jewelry market well.

The immersive experience mode discussed in this paper combines museums, guides, experience stores and sales stores. By providing multiple services such as visiting, teaching and experience, consumers can get a diversified consumption experience not limited to a single product in a diversified shopping environment.

2.2 AIDMA model

AIDMA model by American advertising scientist E.S. Lewis, is one of the mature theoretical model of consumer behavior [5], the theory is applicable to the real economy of high involvement, is divided into five stages, namely: Attention, Interest, Desire, Memory, Action, attract attention mainly rely on sensory immersion to attract consumers, interest, desire, form memory three stages mainly rely on psychological immersion and eventually encourage consumers to buy action. The purchase action proposed in this paper is not limited to the complete physical products, but also includes the corresponding material packages, online courses, physical courses, etc.

2.3 Research hypothesis

Some scholars show that history museums attract students, experts, researchers, tourists, parents who need to acquire knowledge, and art museums attract [6] s, including professional students and interest lovers. Based on the above research, the museum mentioned in this paper is a comprehensive museum combining history and art. Scholar Yang Jing proved that the interactive experience of museums can immerse children in [7]; Schmitt and Brakus research proved that brand experience affects customers' brand selection and purchase decision [8]; Yu Lu scholar proved that immersive experience is feasible in the development of Tongxiang blue calico intangible cultural heritage skills [9]. Therefore, the immersive experience mode of "museum + guide + experience

store + sales store" may affect customers to take purchase actions, so the following assumptions are proposed:

Hypothesis H1: the immersive experience marketing model has a positive impact to attract customers' attention;

Hypothesis H2: The immersive experience marketing model has a positive impact to arouse customer interest;

Hypothesis H3: The immersive experience marketing model positively affects customers' desire to demand;

Suppose H4: the immersive experience marketing model positively affects customers to form a memory;

Hypothesis H5: The immersive experience marketing model positively affects customers to take purchasing actions.

3. Questionnaire design and sample frequency statistics

The questionnaire includes three parts: personal information (6 items), people's understanding of intangible cultural heritage and Jin embroidery (2 items), and Likert measurement scale (32 items). Through the online platform "Questionnaire Star", 400 questionnaires were distributed, and 390 questionnaires were recovered, with a recovery rate of 97.50%. After examination, abnormal questionnaires were excluded, and 376 valid questionnaires were finally obtained, and the response rate was 96.41%. The overall Cronbach's Alpha system value of the reliability analysis scale is greater than 0.7, and the corresponding Cronbach's Alpha system value of the six dimensions is greater than 0.7, indicating that the internal consistency of the questionnaire is good, and the results of this survey are excellent [10]. Moreover, after validity analysis, the load value of each dimension is greater than 0.5, and the results obtained by rotating the component matrix match with the scale and dimension divided by the study design. Therefore, the validity of the questionnaire is high and the questionnaire is valid for [11].

As shown in Table 1 and Table 2, 63.56% of the questionnaire participants were female and 36.44% were male, indicating that the immersive experience marketing model may be easier to attract female consumers; the age distribution is the largest, 18 to 24 years; the education is 70.48%; the most, 30.59%; 71.81% of the population choose "other". From the statistics of the age and identity of the respondents, it can be preliminarily inferred that immersive experience consumption is a new thing, and it is more likely to attract young people. According to statistics from Table 2, the survey population has a better understanding of the intangible cultural heritage, and only 21.01% of them know and understand Jin Embroidery very well.

Tab.1 Survey sample basic information frequency statistics

Demographic variables	option	frequency	percentage (%)	accumulative perception (%)
sex	male	137	36.44	36.44
	female	239	63.56	100.00
age	under the age of 18	42	11.17	11.17
	18-24 years old	93	24.73	35.90
	25~30 years old	64	17.02	52.93
	31~40 years old	54	14.36	67.29
	41~50 year old	36	9.57	76.86
	51~60 year old	51	13.56	90.43
	Over 60 years old	36	9.57	100.00
record of formal schooling	Primary school and below	32	8.51	8.51
	junior middle school	46	12.23	20.74
	High school / technical secondary school / Technical school	80	21.28	42.02
	junior college	64	17.02	59.04
	undergraduate college	121	32.18	91.22
	Master's degree or above	33	8.78	100.00
occupation	full-time equivalence	115	30.59	30.59
	Government / office cadre / civil servant	18	4.79	35.37
	Ordinary staff	57	15.16	50.53
	professional	43	11.44	61.97
	common laborer	15	3.99	65.96
	Commercial Services Staff	48	12.77	78.72
	Self-employed / Contractor	18	4.79	83.51
	professional	14	3.72	87.23
	Agriculture, forestry, animal husbandry and fishing workers	11	2.93	90.16
	other	37	9.85	100.00
annual earnings (RMB)	30,000 and below	27	7.18	7.18
	30,000 to 50,000	79	21.01	28.19
	50000 to 80000	160	42.55	70.74
	80000 and more	110	29.26	100.00
domicile	Shanxi	71	18.88	18.88
	other	305	81.12	100.00

Tab.2 Quantitative statistics of the research samples on intangible cultural heritage and Jin Embroidery

demographic variable	option	frequency	percentage (%)	accumulative perception (%)
Knowledge of the intangible cultural heritage	very few	56	14.89	14.89
	few	100	26.60	41.49
	medium	106	28.19	69.68
	high	57	15.16	84.84
	Very high	57	15.16	100.00
The degree of understanding of Jin embroidery	very few	124	32.98	32.98
	few	97	25.80	58.78
	medium	76	20.21	78.99
	high	43	11.44	90.43
	Very high	36	9.57	100.00

4. Analysis of the empirical research results

4.1 Description and analysis of the samples

The description analysis of samples is used to summarize the overall situation of some quantitative data. It can be used to conduct a preliminary analysis of the indicators, aiming to master the overall characteristics of the sample. As can be seen from Table 3, the sample size of each dimension is 376, and the mean values of attracting attention, interest, demand desire, memory formation, purchasing action, and immersive experience are 3.713, 3.543, 3.514, 3.615, 3.444, 3.801, respectively. The immersive experience and attention attraction average is the highest, while the purchase action is relatively low, therefore, the influence of immersive experience on the factor attention attraction is higher, in comparison, the factor purchase action is low, but its mean > 3, so the independent variable on the dependent variable purchase action is significant.

Usually, the absolute value of skewness is <2, and the absolute value of kurtosis is <7. We say that the data follows an approximate normal distribution, and the skewness of this data and the absolute value of kurtosis meet the requirements.

Tab.3 Descriptive statistic

	N	mean	standard deviation	skewness	kurtosis
absorb	376	3.713	1.221	-0.646	-1.102
excite interest	376	3.543	1.139	-0.358	-1.048
Generate the desire to demand	376	3.514	0.865	-1.013	0.254
Form memory	376	3.615	1.137	-0.466	-0.878
Purchase action	376	3.444	0.913	-0.858	-0.190
Immersive experience	376	3.801	0.949	-0.834	0.325

4.2 Correlation analysis

Correlation analysis is an analysis method to determine the degree of closeness between variables by analyzing two or more variables. According to Table 4, correlation analysis is used to study the immersive experience and attract attention, arouse interest, generate demand desire, form memory, take a total of five items, and Pearson correlation coefficient is used to indicate the strength of the correlation. Specific analysis shows that:

Immersive experience and attract attention, arouse interest, demand desire, form memory, take purchase between all 5 items are significant, correlation coefficient value are 0.458, 0.451, 0.479, 0.535, 0.450, and the correlation coefficient value are more than 0, means that immersive experience and attract attention, cause interest, demand desire, form memory, purchase action has a positive correlation.

Tab.4 Pearson correlation analysis

	mean	standard deviation	Immersive experience	absorb	excite interest	Generate the desire to demand	Form memory	Purchase action
Immersive experience	3.801	0.949	1					
absorb	3.713	1.221	0.458**	1				
excite interest	3.543	1.139	0.451**	0.511**	1			
Generate the desire to demand	3.514	0.865	0.479**	0.396**	0.357**	1		
Form memory	3.615	1.137	0.535**	0.393**	0.411**	0.376**	1	
Purchase action	3.444	0.913	0.450**	0.354**	0.358**	0.333**	0.417**	1
* p<0.05 ** p<0.01								

5. Conclusion

Regression analysis was used as a statistical method for determining the quantitative relationship of the degree of interdependence between two or beyond two variables. In this paper, immersive experience satisfaction is taken as the independent variable, including attracting attention, attracting interest, generating demand desire, forming memory, and taking purchasing action to make the following results through regression analysis.

1) Take the immersive experience satisfaction as the independent variable, and attract attention for the linear regression analysis of the dependent variable 1. The model formula is:

$$\text{Attract attention} = 1.474 + 0.589 * \text{Immersive Experience satisfaction}$$

R²=0.210, which indicates that immersive experience satisfaction can explain 21.0% of the change of factor 1 (attention attraction). By F testing the model to obtain F₁=99.129, p₁=0.000 < 0.05, the model shows that immersive experience satisfaction will definitely affect attention attraction. The regression coefficient value of immersive experience satisfaction is 0.589 (t₁=9.956, p₁=0.000 < 0.01), indicating that immersive experience satisfaction will have a significant positive impact on attention attraction.

Summary and analysis: immersive experience satisfaction will have a significant positive impact on attention attraction.

2) Take immersive experience satisfaction as independent variable and arouse interest as dependent variable 2. The model formula is:

$$\text{Cause of Interest} = 1.483 + 0.542 * \text{Immersive experience satisfaction}$$

R²=0.204 indicates that immersive experience satisfaction can explain 20.4% of the change of factor 2 (causing interest). When F tests the model to obtain F₂=95.686, p₂=0.000 < 0.05, it shows that immersive experience satisfaction will definitely affect interest through F test. The regression coefficient of immersive experience satisfaction is 0.542 (t₂=9.782, p₂=0.000 < 0.01), indicating that immersive experience sales model will have a significant positive impact on interest.

Summary and analysis: immersive experience satisfaction will have a significant positive impact on interest.

3) Take the immersive experience satisfaction as the independent variable, and generate the demand desire as the dependent variable 3 for linear regression analysis. The model formula is:

$$\text{Create desire} = 1.852 + 0.437 * \text{Immersive experience satisfaction}$$

R²=0.230 indicates that immersive experience satisfaction can explain 23.0% of the change of factor 3 (demand desire). When F tests the model for F₃=111.580, p₃=0.000 < 0.05, the model shows. The regression coefficient of immersive experience satisfaction is 0.437 (t₃=10.563, p₃=0.000 < 0.01), indicating that immersive experience satisfaction has significant positive impact on demand desire.

Summary and analysis: immersive experience satisfaction will have a significant positive impact on desire.

4) Take immersive experience satisfaction as independent variable and form memory as dependent variable 4 for linear regression analysis. The model formula is:

$$\text{Form memory} = 1.176 + 0.642 * \text{Immersive experience satisfaction}$$

$R^2=0.286$ indicates that immersive experience satisfaction can explain 28.6% of the change of factor 4 (forming memory). After F test of the model, $F_4=150.125, p_4=0.000 < 0.05$, the model shows that immersive experience satisfaction will affect the formation of memory. The regression coefficient value of immersive experience satisfaction is $0.642 (t_4=12.253, p_4=0.000 < 0.01)$, indicating that immersive experience satisfaction will have a significant positive impact on memory formation.

Summary and analysis are available: immersive experience satisfaction will have a significant positive impact on the formation of memory.

5) Immersive experience satisfaction is taken as the independent variable, and the purchase action is the dependent variable 5. The model formula is:

$$\text{Buy Action} = 1.799 + 0.433 * \text{Immersive Experience satisfaction}$$

$R^2=0.202$, which indicates that immersive experience satisfaction can explain 20.2% of the change of factor 5 purchase action. By F testing the model to obtain $F_5=94.835, p_5=0.000 < 0.05$, the model shows that immersive experience satisfaction will definitely affect the purchase action. The regression coefficient value of immersive experience satisfaction is $0.433 (t_5=9.738, p_5=0.000 < 0.01)$, indicating that immersive experience satisfaction will have a significant positive impact on the purchase action.

Summary analysis: immersive experience satisfaction will have a significant positive impact on purchasing actions.

Tab.5 Results of linear regression analysis (n=376)

	Non-standardized coefficient		Standardization coefficient	t	VIF	R2	After adjustment R2	F
	B	standard deviation	Beta					
constant1	1.474	0.232	-	6.359	-	0.210	0.207	F (1,374)=99.129,p=0.000
Immersive experience satisfaction1	0.589	0.059	0.458	9.956	1.000			
constant12	1.483	0.217	-	6.834	-	0.204	0.202	F (1,374)=95.686,p=0.000
Immersive experience satisfaction1 2	0.542	0.055	0.451	9.782	1.000			
constant13	1.852	0.162	-	11.423	-	0.230	0.228	F (1,374)=111.580,p=0.000
Immersive experience satisfaction1	0.437	0.041	0.479	10.563	1.000			
constant14	1.176	0.205	-	5.733	-	0.286	0.285	F (1,374)=150.125,p=0.000
Immersive experience satisfaction1	0.642	0.052	0.535	12.253	1.000			
constant15	1.799	0.174	-	10.339	-	0.202	0.200	F (1,374)=94.835,p=0.000
Immersive experience satisfaction1	0.433	0.044	0.450	9.738	1.000			

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