Operation Management of Chinese Dance Application

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Abstract

The dance application is an important product that coincides with the rapid development of the Internet in the past few years and the number of users has increased dramatically. In 2020, during the COVID-19 pandemic, the form of dance heritage below the line was greatly restricted, especially in school education, which was commonly taught online. As a result of this situation, the rapid development of dance applications was made. This paper was quantitative research. A research hypothesis on user satisfaction and loyalty to Chinese dance applications was presented with questionnaire formulation, data acquisition, and validation. In this regard, it was intended as a reference for the development of sustainable dance applications.

Keywords: Dance Application; Chinese User; Satisfaction's Loyalty

Introduction

With the development of Chinese dance applications, with the popularization of smartphones, energy will be further released, and more innovative dance products and related content will continue to emerge, which has a huge impact on dance communication, innovation, and consumption. The users of the Chinese dance application include professionals engaged in dance-related work, amateur dance enthusiasts, and the general public. Compared with traditional dance face-to-face instruction, dance applications have the following characteristics: wider content coverage, faster information dissemination, unlimited personnel, less time and space constraints, and greater possibility of creating wealth (Doll W J, Torkzadeh G., 1988; Fomell C., 1992; Lv, Y.S., 2018). Dance applications play an important role in dance teaching, dance communication, dance innovation and other professional fields; it also includes the stability of people's psychological and emotional; and it plays an important role in the development of physical health. The dance application brings together dance lovers, to meet their own leisure and

entertainment needs and the needs recognized by them, in this process, people's dance knowledge and social skills have been improved, reducing their pressure in study and life, and satisfying their sense of belonging (Peterson, A.,1997). The application's high degree of integration, high sense of belonging, and freedom from the limitations of time and space meet the ever–changing needs of users under the development of the current era, and stimulate the development of Chinese dance applications (Bolten R N, Drew j h.,1991; Bloch P H, Ridgway N M. Dawson S A.,1994; Devaraj S, Fan M, Kohli R., 2002; Bowman, S., & Willis, C., 2003; Chen, Y.W., 2012; Chen, Y.D., 2015;.

1. Research conceptual framework design and research hypothesis

This article refers to national policies and regulations, industry authoritative white papers, related books, papers, conference documents, questionnaires, interviews and other information materials to classify and analyze dance application users, and try to put forward dance application development suggestions and ideas. Based on the characteristics of the current dance application, a research conceptual framework was developed.
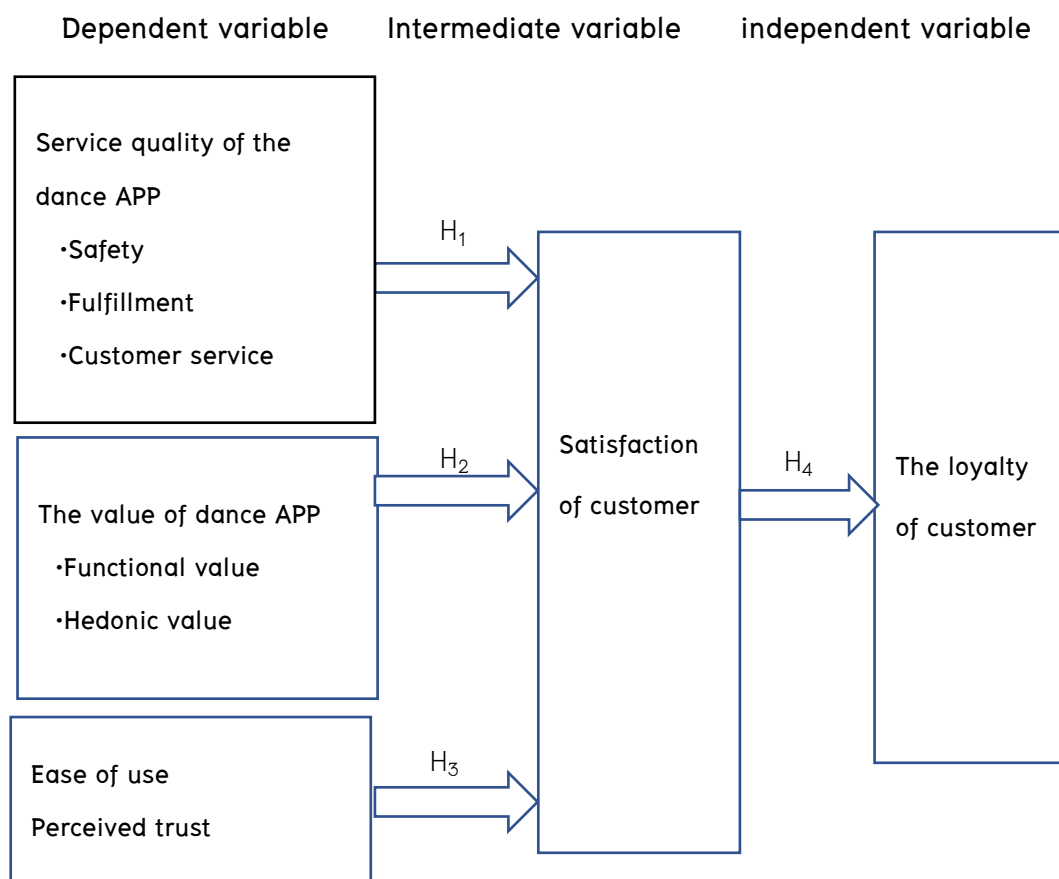

Figure 1 Researchers self–developed

According to the research framework, the research hypothesis is proposed.

H_1 The safety, fulfillment and customer service of dance applications have an impact on user satisfaction.

H_2 The functional value and hedonic value of dance applications have an impact on user satisfaction.

H_3 The ease of use and perceived trust of dance applications have an impact on user satisfaction.

H_4 User satisfaction has an impact on loyalty.

2. Questionnaire design and reliability and validity test

2.1 Design of the questionnaire

This article first studies the literature, combines practical interviews and surveys, mainly adopts quantitative research methods, and uses the data obtained from the previous research to design the questionnaire. The composition of the questionnaire is divided into the following 4 parts.

Part 1. Personal profiles, including gender, age, income, etc., a total of 10 – 12 questions.

Part 2. Is about the attitude and behavior of the personal with the dance application, a total of 10 questions.

Part 3. Problems related to dependent variables and independent variables, a total of 20 – 30 questions.

Part 4. Respondents' suggestions on the operation of dance application.

Of these, Part 2 and Part 3 are scaled questions following the 7 scale of Likert's scale concept.

Variable	Very dissatisfied (1)	Dissatisfied (2)	Less dissatisfied (3)	Neutral (4)	More satisfied (5)	Satisfied (6)	Very satisfied (7)

Figure 2 seven-level scale

Source: Likert's scale concept.

2.2 Validity test of questionnaire

The trial test mainly checks the surface validity, content validity and reliability of the scale. Surface validity refers to whether each item of the scale measures the content that needs to be measured. Content validity is concerned with whether all items of the scale cover the content to be tested. The surface validity and content validity are mainly based on the subjective judgment of

individuals. The researcher will apply IOC (items objective congruence) tests for validity and reliability. The index of Item–Objective Congruence (IOC) was developed by Rovinelli and Hambleton in 1977.

2.3 Reliability coefficient of test questionnaire

The questionnaire was set according to Likert's seven–level scale. Invite at least five experts to conduct an IOC assessment of the target questions in the questionnaire, it ratings are: 1: item clearly taps objective. 0: unsure/unclear. –1: item clearly does not tap objective. A statistical formula (or SAS program) is then applied to the ratings of each item across raters. Take the average value given by several experts, the closer the value is to 1, the higher the validity, and the value should be above 0.7 (Nunnally, 1978) to accept this question.

3. Collection and analysis of user personal data

In addition to basic personal information, this article also investigates the personal experience of using the Internet, the number of times of surfing the Internet, and the frequency of logging in to dance applications.

3.1 Statistical Analysis of Network Experience

Table 3.1 Respondents' Network Experience Statistics

Use network experience	Frequency	Percentage
Less than 1 year	15	1.2
1–2 years	28	2.2
3–4 years	107	8.3
5–6 years	195	15.1
7–8 years	169	13.1
Over 8 years	776	60.2
Total	1289	100

In terms of network experience, 776 people have more than 8 years of experience, accounting for 60.2%, the largest number and the highest proportion. There are only 15 people with less than 1 year of experience, accounting for 1.2%, the least number and the lowest proportion. There are relatively few people with 1–2 years of experience, 28 people, accounting for 2.2% of the proportion, 2–8 years of use experience is more evenly distributed.

3.2 Statistical Analysis of Internet Browsing Frequency

Table 3.2 Respondent's Internet Browsing Frequency

Internet browsing	frequency	percentage
Several times a day	1066	82.7
Once a day	147	11.4
once a week	43	3.3
Once a month	3	0.2
Less than once a month	5	0.4
Rarely/never	6	0.5
Don't know / hard to tell	19	1.5
Total	**1289**	**100**

As shown in the above table, 1066 people use the Internet several times a day, with the largest number of people, accounting for the highest proportion of 82.7%; the number of people who use it once a day is 147, accounting for 11.4%. Others who use less frequently and are not clear, the total number is less than 100, and the proportion is also low.

3.3 Login Application Frequency

Table 3.3 Respondents Log in to Application Frequency

Login application frequency	frequency	percentage
Several times a day	119	9.2
Once a day	88	6.8
once a week	135	10.5
Once a month	116	9.0
Less than once a month	320	24.8
Rarely/never	204	15.8
Don't know / hard to tell	308	23.9
Total	**1289**	**100**

The above table shows that compared with the frequency of surfing the Internet, the frequency of logging in to the application is lower. The number of people who log in to the application is less than once a month, which is 320, accounting for 24.8%. The number of people who rarely/never log in to the application is 204, accounting for 15.8%, In addition, 308 people said they didn't know or were difficult to say about logging in to the application, accounting for 23.9%. Relatively few people log in to the application frequently.

3.4 Awareness of Dance Application

Table 3.4 Respondents' Awareness of the Dance Application

Awareness of dance application	frequency	percentage
Understand and be very clear	53	4.1
Heard of it but not very clear	510	39.6
Never heard of	726	56.3
Total	1289	100

As shown in the table above, 726 people have never heard of dance application, accounting for 56.3%. 510 people who have heard of it but are not very clear, accounting for 39.6%. Only 53 people know and know, accounting for 4.1%. This shows that the dance app is still unfamiliar to most groups of users.

4. Exploratory Factor Analysis

According to the suggestions of Gerbing and Anderson (1988), an exploratory factor analysis (EFA) was performed on the independent variables and dependent variables of the dance application user satisfaction model. Before performing exploratory factor analysis (EFA), it is necessary to perform BST (Bartlett Sphericity Test) and KMO (Kaiser–Meyer–Olkin, the closer the KMO value is to 1, the stronger the correlation between variables) tests on the data.

4.1 Exploratory factor analysis of independent variables

The independent variables of the dance application user satisfaction model include: application design, fulfillment/reliability, security/confidentiality, customer service, perceived ease of use, and transaction experience.

Table 4.1 Independent Variable KMO and BST Test

Category	Index	Value
KMO		0.922
BST	Approximate chi–square value	27496.202
	Degree of freedom	210
	Significance	0.000

Table 4.1 is the BST test sum and KMO test results of the independent variables. The KMO is 0.922 and the significance level is 0.000, indicating that the common variance of the correlation matrix between groups is sufficient for factor analysis.

The exploratory factor analysis adopts the maximum variance rotation method, and requires that the eigenvalue is greater than 1, and the factor load is greater than 0.5.

Table 4.2 Independent Variable Factor Loading

Item	Code	Factor loading
Application design	WD1	0.7030
	WD2	0.6828
	WD3	0.7010
	WD4	0.5738
	WD5	0.5158
Performance/reliability	FR1	0.6485
	FR2	0.6941
	FR3	0.5941
Security/confidentiality	SP1	0.6094
	SP2	0.7181
	SP3	0.6683
Customer service	CS1	0.7958
	CS2	0.8177
	CS3	0.8216
Perceived ease of use	EU1	0.8122
	EU2	0.8616
	EU3	0.7853
	EU4	0.8182
Transaction experience	EP1	0.7969
	EP2	0.7707
	EP3	0.8570

Application design, fulfilment/safety, and customer service represent different dimensions of service quality. Application service quality is the service quality evaluation of the entire application process; Application design represents service evaluation, and fulfilment/safety belongs to process service evaluation. Customers Service evaluation after service representative pays. The eigenvalues of the five factors of the independent variables are all greater than 1, and the cumulative explained variance is 67.26% (Table 4.2).

Table 4.3 Exploratory Factor Analysis of Independent Variables

Item	Code	Factor loading	Eigenvalues	Explained variance (%)	Cumulative explained variance (%)
Application design	WD1	0.70	1.25	5.94	5.94
	WD2	0.68			
	WD3	0.70			
	WD4	0.57			
	WD5	0.52			
Fulfilment/Safety	FR1	0.65	8.30	39.53	45.47
	FR2	0.69			
	FR3	0.59			
Security/confidentiality	SP1	0.61			
	SP2	0.72			
	SP3	0.67			
Customer Service	CS1	0.80	1.31	6.23	51.70
	CS2	0.82			
	CS3	0.82			
Perceived Ease of Use	EU1	0.81	2.26	10.76	62.46
	EU2	0.86			
	EU3	0.79			
	EU4	0.82			
Transaction Experience	EP1	0.80	1.01	4.80	67.26
	EP2	0.77			
	EP3	0.86			

4.2 Exploratory factor analysis of dependent variables

Satisfaction, functional value, hedonic value and loyalty are the dependent variables of the application customer satisfaction model, Bartlett sphere test (BST) and Kaiser–Meyer–Olkin (KMO). The test results (Table 4.4) indicate that the dependent variable is suitable for exploratory factor analysis.

Table 4.4 Dependent Variable KMO and BST Test

Category	Index	Value
KMO		0.932
BST	Approximate chi–square value	28661.47
	Degree of freedom	171
	Significance	0.000

Table 4.5 is the result of exploratory factor analysis of dependent variables, functional value and loyalty are independent factors, 6 of the 8 items of hedonic value are subordinate to the hedonic value factor, and the other 2 items are subordinate to the satisfaction factor. Since the operational definition of cumulative satisfaction does not include these two items, they are deleted. The factor load and explanatory variance after removing bad indicators are shown in Table 4.6.

Table 4.5 Dependent Variable Factor Load

Item	Code	Factor loading
Satisfaction	ES1	0.85
	ES2	0.81
	ES3	0.72
Functional value	UV1	0.72
	UV2	0.71
	UV3	0.82
	UV4	0.76
Hedonic value	HV1	0.56
	HV2	0.50
	IIV3	0.61
	HV1	0.74
	HV5	0.71
	HV6	0.83
	HV7	0.80
	HV8	0.76
Loyalty	EL1	0.81
	EL2	0.87
	EL3	0.85
	EL4	0.81

Table 4.6 Exploratory Factor Analysis of Dependent Variables

Item	Code	Factor loading	Eigenvalues	Explained variance (%)	Cumulative explained variance (%)
Satisfaction	ES1	0.86	1.14	6.73	6.73
	ES2	0.83			
	ES3	0.75			
Functional value	UV1	0.73	1.46	8.61	15.34
	UV2	0.72			
	UV3	0.83			
	UV4	0.77			
Hedonic value	HV3	0.62	7.44	43.76	59.01
	HV4	0.75			
	HV5	0.72			
	HV6	0.83			
	HV7	0.80			
	HV8	0.77			
Loyalty	EL1	0.82	2.17	12.77	71.78
	EL2	0.88			
	EL3	0.85			
	EL4	0.81			

5. Hypothesis Testing

Table 5.1 Model Test Results

Research hypothesis	Path coefficient	t Value	Result
Application design–user satisfaction	0.19***	4.06	support
Reliability/Fulfillability, customer service–user satisfaction.	0.10***	2.04	support
Functional value, hedonic value–user satisfaction.	0.75***	16.09	support
Perceived ease of use–user satisfaction.	0.37***	11.54	support

Research hypothesis	Path coefficient	t Value	Result
Application design, customer service, perceived ease of use–hedonic value.	0.37***	11.38	support
User satisfaction––loyalty.	0.17***	5.05	support

H_1 Reliability/Fulfillability and customer service positively affect user satisfaction. Through the path analysis data of the structural equation, it can be seen that the path coefficient in the conceptual model is 0.10, and the t value is 2.04. It reaches a significant level at 0.05 and hypothesis H_1 holds.

H_2 The functional value and hedonic value of dance application positively affect user satisfaction. Through the path analysis data of the structural equation, it can be seen that the path coefficient of effort expectation and performance expectation in the conceptual model is 0.75, and the t value is 16.09, reaching a significant level at 0.001, hypothesis H_2 holds.

H_3 Perceived trust positively affects user satisfaction. From the path analysis data of the structural equation, it can be seen that the path coefficient of perceived ease of use and user satisfaction in the conceptual model is 0.37, and the t value is 11.54, reaching a significant level at 0.001, hypothesis H_3 holds.

H_4 User satisfaction positively affects loyalty. From the path analysis data of the structural equation, it can be seen that the path coefficient in the conceptual model is 0.17 and the value is 5.05, reaching a significant level at 0.001, hypothesis H_4 holds.

Conclusion

The empirical analysis results show that in the service environment of dance applications, user satisfaction, functional value, and hedonic value of dance applications have an impact on loyalty, which further confirms the relationship between functional value, etc.–satisfaction–loyalty (Spreng et al., 1996). The results show that satisfaction has the greatest impact on loyalty, but functional value and hedonic value also have a more obvious impact on loyalty. In addition to direct influence, functional value and hedonic value also indirectly affect loyalty through satisfaction (Zheng, G.Q., 2017; Zhao, C.J., 2019).

Recommendations for the spread of dance application resources, 1) Adhere to the "people-oriented" user experience, the center of Internet thinking is user thinking, and user thinking is also the basic principle of the Internet in use. Therefore, the Internet business model must be built on a people-oriented business foundation. It should be the same for disseminators to disseminate online dance resources. It is very necessary to consider the problem from the perspective of users. Provide more

resources to make these resources in line with the aesthetic taste of the general public, let the seemingly high-end dance knowledge close to the people, and gradually improve the people's dance aesthetics. At the same time, the public also appreciates the beauty of professional dance. We will transform marginal users into ordinary users, and then gradually transform ordinary users into precise users. This is a process resource that can meet popular needs, and can also meet more precise individual needs. Every dance media platform must pay attention to the user's sense of participation and experience in the platform. 2) Realize directional communication and tap deep communication. Currently, users of various media dance resources are spreading unevenly. For mass users, dance websites and dance microblogs are generally rarely used. Most people are more inclined to pay attention to social media dance resources such as WeChat official accounts and Douyin. It is necessary for the communicator to target the target audience and carry out in-depth communication in a targeted manner. On the one hand, good content can meet the needs of users. On the other hand, it can make users feel the seriousness of every detail. Even communicators can think of some good experiences that users have not thought of temporarily, beyond expectations. In addition to presenting high-quality, original, exclusive, and timely content, it can also output system dance resources for classification. Good content, even if the format is not good, will form a good word of mouth to spread. On the basis of achieving directional communication and in-depth communication, complete diversified communication modes. While creating content first, we must also pay attention to the simplicity of the content and avoid continuous nonsense. of course, it does not refer to simple content and short sentences, but refers to the efficiency of obtaining content. 3) Keeping up with user needs and gradually updating, technology is changing, and human needs are also changing. The development of science and technology continues to meet the needs of consumers and create surprises for consumers. Only by quickly responding to the needs of the audience can the content be closer to the audience. On some network platforms, it is even possible to analyze user preferences from user usage data, so that the platform can automatically push users' favorite information to complete further communication. The integrated platform can link some common points of interest to find potential fans.

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