What Drives Users to Adopt a Digital Museum? A Case of Virtual Exhibition Hall of National Costume Museum

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Abstract
The onset of technological innovations (mobile and handhelds, virtual reality, multi-touch screens, and interactive 3D) have provided creative ideas and perspectives for online communication, dissemination, and protection of cultural heritage for costume museums. Digital costume museums (DCM) digitized clothing collections for the Internet, conducive to enhancing visitors’ understanding, enjoyment, and positive attitudes and stimulating further learning, experience, and exploration. However, little attention has been paid to the influence and effects of these technologies on visitors’ experience toward digital costume museums. Improving users’ behavior intention and expanding the influence of digital costume museums are issues that need further discussion. In this study, we expand the technology acceptance model (TAM) by adding information quality and information richness as the system characteristics, constructing the research model, and 11 hypotheses of users’ behavior intention toward digital costume museums. Analysis of data collected from 265 costume-related respondents reveal that information quality (IQ) positively influences perceived convenience (PC) and perceived ease of use (PEOU), while information richness (IR) has a positive impact on perceived usefulness (PU) and perceived playfulness (PP). The finding also reveals that perceived usefulness (PU) and perceived playfulness (PP) are significant predictors of users’ behavior intention (BI) toward using digital costume museums. The research conclusion enriches academic theories and brings practical inspiration for managers, curators, and practitioners to construct and innovate digital costume museums.

Keywords
digital museum, digital costume museum, Chinese traditional costumes, virtual exhibition hall, TAM, users’ intentions, information quality, information richness

Introduction
The advent of the information age has changed how people communicate and think. Compared with the traditional narrative method, the cultural and artistic dissemination method of digital information is easier to accept. As new technologies and concepts such as the Internet, information and communication technology, digital media technology, and interactive design theory are increasingly being used in museum practice, the functions of museums are more than physical preservation, display, cultural memory, public education, information dissemination, and academic research (Hung et al., 2013; Wallenberg, 2020). More organizations have realized the importance of museums (with a website on the Internet) for the online communication, dissemination, and protection of intangible cultural heritage. As a new paradigm of modern museums, the development of digital museums benefits from substantial market demands and relatively mature technologies. It utilizes the potential of digital technologies to provide online virtual displays, instant distribution of information, and personalized search functions, which will redefine the time and space of exhibitions and the relationship with the audience (Dong et al., 2006). Hopefully, this will improve the way information and knowledge are delivered, thereby creating a meaningful experience for visitors (Nizar & Rahmat, 2018). Nowadays, the nature of museums has undergone a paradigm shift from “object-centeredness” to visitor experience (Hein, 2014). Therefore, understanding how visitors use digital resources in their daily lives to recognize cultural heritage properly is
critical to digital museums’ success in the information age. Meanwhile, it is widely acknowledged that we cannot ignore some issues and concerns, such as economic sustainability and resources, skills and competencies required, and possible inequalities related to online cultural access and participation, and the use of digital technologies in cultural sectors (Knudsen & Olesen, 2018; Myrzik, 2020; Olesen, 2016).

The emergence of technological innovations (mobile and handhelds, multi-touch screens, interactive 3D, augmented reality, and virtual reality) and creative applications continue to reveal the transformative nature of such technologies for art and cultural heritage (Ch’ng et al., 2019). This trend is also introduced into the field of clothing. In the past, museums exhibited precious clothing and textile collections under restricted protection. Using the old exhibition methods (such as physical static exhibitions and paper reports), visitors can only watch through the windows of the exhibits for a simple understanding of the learning process but lack interactive entertainment (Jiang et al., 2017). Therefore, the transmission of clothing culture is not ideal (Jiang et al., 2015). With the development of mass media and virtual reality technology, the three-dimensional virtual presentation of “from reality to virtual reality and then back to reality” (Martin & Mauriello, 2013) and the new mode of clothing culture propagation of “traditional clothing enters mobile client” become popular (Jiang et al., 2017). Meanwhile, new human-computer interaction technology (Chen et al., 2015; Nakamura et al., 2013) has become an essential technical guarantee for the project. Using interactive new media, digital costume museums provide these audiences with a full range of unique experiences and become an effective way to inherit and re-create clothing culture (Jiang et al., 2019; Saiki & Robbins, 2008).

As digital museums become an essential channel for increasing social vitality, examining its adoption from a personal perspective is becoming more critical. Technology accessibility may affect the acceptance level of the technology, especially in the digital museums’ context. Digital Costume Museum, a website that provides digital services for clothing and cultural heritage, can be regarded as an information system. A good user experience and positive usage intentions are the keys to its ultimate success. Related studies for learning about visitor behavior and evaluating digital systems were mainly concentrated in comprehensive digital museums with case studies (Chen & Ryan, 2020; Dong et al., 2011; Hung et al., 2013; Pallud & Straub, 2014; Wang, 2018; Wu, 2013). In digital costume museums, most of the articles stay at the level of qualitative research, focusing on conceptual discussions, exhibition suggestions, technical realization, etc. (Jiang et al., 2013, 2017, 2019; Kang et al., 2013, 2015; Martin & Ko, 2009; Saiki & Robbins, 2008). In China, the construction of digital costume museum websites is far inferior to display platforms of porcelain, bronze ware, and other kinds of collections. Digital costume museums are an important professional museum under branches of the museum field; there are few studies on digital costume museums’ usage intentions from visitors’ perspective and discuss their development path. However, how acceptance levels of visitors to use digital costume museums? What factors influence users’ acceptance behavior of them? These questions are essential to understanding future visitor and development activities.

Recognizing the gap, we first sorted out the research background and defined relevant concepts through a literature review. Second, we proposed a theoretical model to integrate the critical factors related to users and systems that can encourage the adoption of digital costume museums. Hypotheses are developed to evaluate the relationship between each dimension in the proposed model. Third, we used a questionnaire survey to gather sample data and analyze them using structural equation modelling. Finally, this study reports and discusses academic and practical implications. Analyzing the key factors affecting the use of the system by visitors can provide a new perspective and valuable help for the “user-oriented” digital costume museum construction. Its guidance and suggestions can also be used for other digital museums.

**Literature Review**

**Museum, Digital Museum, and Visitor Experience**

In 2007, the International Council of Museums (ICOM, 2007) expressed the definition of a museum: “... is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.” However, the society on which museums depend for survival and operation is changing, so dynamic forms of expression are needed to reflect new trends. For example, the new draft definition put to the vote by ICOM in July 2019 is “Museums... not for profit. They are participatory and transparent, and work in active partnership with and for diverse communities to collect, preserve, research, interpret, exhibit, and enhance understandings of the world, aiming to contribute to human dignity and social justice, global equality and planetary well-being.” This redefinition promotes participatory and active multilateral collaboration in museums. However, the digital era is an important social background and unavoidable macro reality for museum construction. The rise of information and communication technologies and the emergence of technological innovations saw a paradigm shift in the museum agenda (Ch’ng et al., 2019), and digital museums have been paid more and more attention. The current trend is to follow the concept of visitor-centred museums (Anderson, 2004) and the new possibilities of information technology, using digital methods to transform the collections of physical
museums into data resources and maximizing the sharing of valuable information through the Web (Cunliffe et al., 2001; Dong et al., 2006; Skov & Ingwersen, 2014). Through a variety of ways, such as displaying virtual online exhibitions, searching personalized functions, developing digital-only museums, and so on, as well as different levels of digital engagement, this will provide visitors with equal opportunities to contact cultural heritage, convey cultural values, and enhance the rich visiting experience. The digital museum discussed in this article is limited to museums that use the Internet to display and disseminate, which is not uncommon in China (Wu et al., 2021). According to the official website of the State Administration of Cultural Heritage in China, during the Spring Festival in 2020, more than 1,300 museums across the country will launch more than 2,000 online exhibitions, with a total of more than five billion views.

Museums have made a paradigm shift from collection-centric to user-centric in the context of human participation and participation interaction. Walmsley’s (2021) research pointed out that if we accept an audience-centred approach, then audiences must be placed at the heart of audience research. The intention of museums has been to make collections more relevant and accessible, allowing visitors to feel more engaged and to have a greater sense of ownership, connection, and experience (Light et al., 2018). Different forms of digital media have become a driving factor in promoting users’ experiences. Therefore, the impact of these technologies on the relationship between museum interpretation and visitor experience is an issue that needs further discussion. Researchers from different disciplines have conducted extensive research, while many types of research focused on visitor behavior in physical museums. On the other hand, some scholars have conducted surveys that include visitors’ experience of digital technology and called for a user-oriented approach to digital museums (Marty, 2007, 2008; Skov, 2013; Skov & Ingwersen, 2008, 2014; Sundjaja et al., 2017; Walsh et al., 2020). However, there are still some details that need to be refined. Thinking about how digitalization can enhance visitors’ experience and choosing the right solution for that experience has become the focus of practitioners (Devine, 2015).

**Digital Cultural Heritage Protection of Traditional Costumes**

In an increasingly globalized world, people’s understanding and attitudes toward cultural heritage shape their sense of place and context more than ever before. In recent years, the protection and interpretation of intangible heritage have received increasing attention, as previous efforts focused more on tangible sites and collections. For example, UNESCO adopted the Convention for the Safeguarding of the Intangible Cultural Heritage in 2003, while ICOM developed the Shanghai Charter on museums, intangible heritage and globalization in 2002. The national and international levels have brought to the fore the importance of studying and preserving all that intangible heritage encompasses. However, when it comes to intangible cultural heritage, many people describe them as ancient, traditional, and so on, distant from real life. The fundamental reason is that there are few channels for the public to understand intangible cultural heritage. Traditional costumes and textiles may offer insight into a significant cultural heritage. They can include sharing information such as lifestyle, beliefs, social status, and etiquette norms, which also reflects people’s cultural backgrounds and esthetic tendencies (Wallenberg, 2020). Similarly, the beauty and uniqueness of clothing can be regarded as essential qualities to share pleasure and artistic inspiration for creativity (Kang et al., 2015). However, traditional costume is often limited with use due to its vulnerability and exposure to potential hazards in research or exhibition. Compared with the manufacture of other cultural relics, they are composed of organic fibers and are subject to constant degradation by environmental factors (such as light, dust, temperature, humidity, and physical pressure) even under the best conditions (Kang et al., 2015). In storage, clothing becomes inaccessible. Therefore, we urgently need a way to permanently preserve these finite objects of cultural heritage to vividly convey the subtleties of each era and culture (Martin & Ko, 2009). The technological innovation of digital costume has always been the focus of researchers in the academic sector. For example, through 3D virtual simulation, previous studies have explored the possibility of digital technology in the reproduction of historical costumes (Kang et al., 2013, 2015; Martin & Ko, 2009).

Like other cultural heritage digital programs, costume museums also create heritage-related explanatory and “edutainment” digital resources and platforms, which are the building blocks of research, learning, management, and the general understanding and appreciation of heritage. In digital costume museums, the traditional costumes are given vitality by technical means, which provides the possibility to protect and inherit the Chinese traditional costume culture. For example, Jiang proposed an interactive multimedia system of traditional Chinese costumes based on 3D virtual reality technology, which can fully display Chinese classical cheongsam’s structural characteristics and help students learn cutting and sewing by themselves (Jiang et al., 2017). In 2016, the State Administration of Cultural Heritage issued a “Three-year Action Plan for ‘Internet + Chinese Civilization’” to promote the construction of open sharing systems for cultural relics resources. Major comprehensive museums or museums focusing on costume collections endeavor to build digital exhibition halls and online museums websites by the Internet and digital technology to give users the feeling of actually being there. For example, the Palace Museum, the China National Silk Museum, the Textile, and the National Costume Museum of Beijing Institute of Fashion Technology. However, compared with other comprehensive
museums and digital costume museums in foreign areas, the construction of digital costume museums in China still lacks relevant theoretical and practical guidance.

Theoretical Framework and Research Hypotheses

Due to the importance of information technology in technology dissemination, the actual use of information systems (IS) in the workplace has become a critical focus area. At this stage, most scholars use the technology acceptance model (TAM) proposed by Davis (1989) as the research basis for analyzing the adoption of information systems. This theory has been revised and improved many times, and a rich TAM expansion model has been formed in different empirical studies (Lin & Lu, 2000; Moon & Kim, 2001; Yoon & Kim, 2007). In the study of museums, the TAM has tried to predict visitors’ acceptance of using digital technologies (Hung et al., 2013; Nizar & Rahmat, 2018). Based on relevant studies, we believe that this model is applicable and effective in the context of digital costume museums. Therefore, this research uses TAM as the theoretical basis, introduces the perceived playfulness of Moon and Kim (2001) and the perceived convenience proposed by Yoon and Kim (2007), and system variables such as information quality and information richness. The research model and hypothesis are developed by referring to the technical route and achievements of previous research.

Attitude (ATT) and Behavior Intention (BI)

Attitudes are defined as the positive or negative feelings that an individual has when performing a behavior (Pallud & Straub, 2014). Behavioral intentions define the strength of the bond customer-organization (García-Madariaga et al., 2017). Before people make the intention of actual action, they first go through the process of rationalization of psychological consciousness. Investigating the user’s intention to accept a specific technology has always been an essential theme in IS research (Hsu & Lu, 2004; Sánchez-Franco & Roldán, 2005; Shin, 2009). A large amount of evidence has shown that users’ attitudes toward using products or services affect their behavioral intentions. Many researchers have carried out relevant research on users’ behavioral intentions after visiting the museum website (García-Madariaga et al., 2017; Marty, 2008). Castaneda et al. (2007) indicated that attitudes toward using the museum website are a strong predictor of intentions to revisit the website. Pallud and Straub (2014) also showed that museum website design positively impacts attitudes, and these positive attitudes will affect visitors’ intention to return to the website. This study defines attitudes as the positive or negative evaluation of using the digital costume museum. The good feelings of users in the process can inspire more positive behaviors. Thus, we propose:

**H1:** Users’ attitude can positively affect users’ behavioral intention toward using digital costume museums.

Perceived Playfulness (PP)

Playfulness can be defined as the degree to which an individual considers the activity of using a product or service is perceived as enjoyable (Davis et al., 1992) and can also refer to the individual’s subjective experience of human-computer interaction (Moon & Kim, 2001). Perceived playfulness is similar to the concept of perceived enjoyment in information systems research, which is described as three interdependent dimensions: concentration, curiosity, and enjoyment (Moon & Kim, 2001). Early research pointed out that playfulness plays a vital role in explaining consumer adoption of new technology (Davis et al., 1992; Hong & Tam, 2006). Perceived playfulness is an example of intrinsic motivation, and its function can better help understand personal behavioral intentions. For example, it is believed that playfulness is related to increased behavioral intention to use WWW (Moon & Kim, 2001). Cheng (2015) showed that PP is an essential prerequisite for the intention of mobile learning. In addition, Wojciechowski and Cellary (2013) pointed out that the software interface design of the virtual reality system has a positive effect on the stimulation of learners’ interest, and research has confirmed the existence of a positive relationship between PP and BI. Virtual reality technology has the characteristics of immersion, interactivity, and intuitiveness, increasing visitors’ interest. Unlike the traditional learning method of paper materials, digital costume museums adopt this technology to conduct interactive three-dimensional displays, which will generate more positive emotional output (e.g., fun, joy, and pleasure) and inspire behavioral intentions. Therefore, we hypothesize:

**H2:** Perceived playfulness can positively affect users’ intention toward using digital costume museums.

Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)

Perceived usefulness reflects the degree to which users believe that using a specific information system would improve their job performance (e.g., self-awareness, learning quality, and work efficiency; Davis, 1989). Scholars have used PU as an extrinsic motivation to understand the adoption of new technologies by different types of users, such as personal computers (PC; Al-Khaldi & Wallace, 1999) and virtual stores by consumers (Oh et al., 2009). These studies show that increasing PU can help users form a more positive attitude toward using a specific technology or service,
thereby increasing actual use. Huang et al. (2013) found that user and system characteristics positively impact perceived usefulness, which in turn has a more positive attitude toward the use of digital museums. We are interested in understanding the willingness of users to adopt the digital costume museum because its use may involve PCs, mobile apps, and virtual reality technologies.

Perceived ease of use refers to the extent to which users understand a particular technology, access websites, internet functions, and web interfaces easy to use (Davis, 1989). The empirical studies found that PEOU indirectly positively affects a user’s intention to adopt new technologies through PU and PP. For example, in an e-learning environment, if learners perceive that using an e-learning system can quickly learn online, they will be more likely to believe that the system is functional. On the other hand, an easy-to-use e-learning system may be less threatening to learners; further, the system will be more likely to be considered pleasant (Cheng, 2012; Kashive et al., 2020; Lee et al., 2005; Sánchez-Franco et al., 2009). If users believe that the system of digital costume museums is more favorable for using than another (e.g., human-computer interaction and operating system are excellent and barrier-free), they will enhance their perception of usefulness and pleasure, thereby increasing the intention of actual use. Hence, this study hypothesizes:

**H6:** Perceived convenience can positively affect users’ perceived usefulness toward using digital costume museums.

**H7:** Perceived convenience can positively affect users’ perceived playfulness toward using digital costume museums.

**Information Quality (IQ)**

Based on an updated D&M IS success model by DeLone and McLean (2003), information quality is an important factor affecting the success of information. IQ refers to the quality of contents and form that IS generates, and its measurement including accuracy, timeliness, reliability, relevance, ease of understanding are widely (Choi et al., 2013; DeLone & McLean, 1992, 2003; Nelson et al., 2005; Zhao et al., 2015). Information quality also describes as “users’ beliefs regarding the quality of information given on a Website” (McKinney et al., 2002) or “the extent to which customers receive complete, accurate, and timely information through electronic service interfaces” (Liu et al., 2010). Previous research has increasingly recognized the importance of information quality in the effectiveness of IT. For example, Chen and Tsai (2019) found that IQ significantly affects PEOU in the study of PLMTA. In e-learning, prior studies showed that user’s perception of information quality provided by a service or system determines its usefulness and ease of use (Cheng, 2012; Lin & Lu, 2000; Motaghian et al., 2013; Salloum et al., 2019; Wu, 2013). According to Jiang et al. (2013), “evaluation convenience” was described as provides product specifics, sufficient information to identify different products and uses both text and graphics of product information. It means that help users obtain detailed and easy-to-understand product descriptions by using various high-quality presentation features associated with users’ convenience evaluations. More specifically, visitors using user-friendly museum websites for navigation will improve the level of perceived convenience. As a tool to help users obtain learning materials through the Internet, a digital costume museum should effectively promote the understanding of users, increase the convenience of access, and ease of obtaining information to save time and energy. Therefore, this study hypothesizes:
H8: Information quality can positively affect users’ perceived convenience toward using digital costume museums.
H9: Information quality can positively affect users’ perceived ease of use toward using digital costume museums.

**Information Richness (IR)**

Information of knowledge components has become an increasingly important part of products or offering itself. Service organizations worldwide use websites to establish their positions in this virtual space, deliver rich information to users and promote value creation (Patrakosol & Lee, 2013). The museum is no exception. According to information richness theory (IRT), information richness refers to “the ability of information to change understanding within a time interval” (Daft & Lengel, 1986). Information that enables its users to clarify ambiguities promptly and enhance understanding of the problem is considered rich. IR also means the information-carrying capacity of the media, which has four attributes, including feedback capacity, multiple cues, language variety, and personalization (Daft & Lengel, 1983; Dennis & Kinney, 1998; Levy & Gvili, 2015). Prior researchers examined that IR positively impacts PP and PU. For example, Oh et al. (2009) showed that IR plays a vital role in the decision of consumers to purchase from virtual stores and has a positive impact on PP and PU. Shen and Lan (2018) pointed out that IR and PU are positively correlated in mobile shopping. In our study, information richness describes allowing users to perceive rich and diverse information through the multimedia content (e.g., images, links, and videos) presented by a digital costume museum. According to Kang et al. (2015), participants thought digital media to display clothing was suitable for exhibition, complements not only the traditional limitations of fragile garments but also makes the access process more convenient and interesting than traditional means. Therefore, it is reasonable to predict that if users believe that a digital costume museum can provide more information richness, they are more likely to regard it as applicable and at the same time feel more enjoyable in the process of experience. Thus, this study hypothesizes:

H10: Information richness can positively affect users’ perceived usefulness toward using digital costume museums.
H11: Information richness can positively affect users’ perceived playfulness toward using digital costume museums.

**Proposed Theoretical Model**

Based on the above discussion and fully considering the characteristics of the digital costume museum itself, this research proposes an integrative model (Figure 1). The model includes eight constructs of information quality, information richness, perceived usefulness, perceived ease of use, perceived playfulness, perceived convenience, attitude, and behavioral intention, and explores the adoption of digital costume museums through 11 related research hypotheses.

**Research Methodology**

This study selected a digital costume museum with free online browsing and learning for simulation (Hangzhou Arts and Crafts Museum, 2019). Chinese traditional costume has a long history and distinctive national features. With the government’s policy advocacy on protecting Chinese traditional culture and digital intangible heritage protection, many art and community organizations have actively responded and made beneficial attempts. In 2019, Hangzhou Arts and Crafts Museum cooperated with the Chinese National Museum of Ethnology to launch a clothing exhibition named “Tradition @ Present: Timeless Style of Chinese Ethnic Attire.” Through a virtual exhibition hall presentation, about 360 costumes, accessories, and tools from 36 ethnic minorities are on display. People can realize the real state of different nationalities in life rituals, social ceremony or ordinary life through these objects. This website was chosen as the research object because of its numerous functions and esthetic characteristics and its reasonable and good quality of website design. For example, there is a “site map” so that all the sections that can be viewed at one glance and colors of website sections are relatively uniform. In addition, it also uses VR technology and digital display methods to effectively enhance the sense of interactive experience, which presents traditional Chinese clothing culture more vividly and expands the way of viewing national culture (Figure 2).

**Measures**

This study adopted the questionnaire method and modified questionnaire items from previous literature to measure the constructs in the proposed research model. All items were measured using the 7-point Likert scale (1 = strongly disagree and 7 = strongly agree). The questionnaire items and reference sources are shown in Table 1.

The questionnaire was pre-tested on 50 students and asked for the opinions of two experts in related fields. According to the feedback, we adjusted the number of questions and the sorting method of the questionnaire. After completion, the final scale was distributed on a large scale. The questionnaire’s content includes the following parts: The initial part is the questionnaire description; users can freely visit any part of their interest on the website. To improve the responsiveness and reliability of the questionnaire, we designed the first question of the questionnaire as: “Have you completed the experience of visiting the virtual exhibition hall of the National Costume Museum?” If the respondent chooses “No,” the questionnaire can be ended in advance. The second part is variable questions; the
questionnaire has 24 questions for eight variables in the model. Finally, we survey the respondent’s demographic characteristics, such as gender, age, education, occupation, and other basic personal information.

**Data Collection and Analysis**

The respondents in this study are from China, including practitioners, students, and research scholars in the textile and apparel field. Since the stimulus website we chose is a Chinese digital costume museum website, respondents from China can have a more intuitive experience and recognition. Our questionnaire was distributed online and offline from February to March 2021, and a total of 293 questionnaires were collected. A total of valid responses was 265, giving a 90.4% valid response rate after deleting the invalid questionnaires and repeated answers. The number of questionnaires collected exceeds the number of analysis items 10 times, and the sample size meets the requirements for SEM (Jackson, 2003). Data sources were divided into two parts: 80 paper
questionnaires were collected from college students or graduate students from apparel-related majors, and online questionnaires were collected from the other 185. The CREDAMO was used to set up, distribute, and collect online questionnaires in our study, which is a professional data platform in China. In order to increase the sample size by snowball sampling, we forwarded the questionnaires to professional websites and social media links (like Weibo, WeChat, and QQ), inviting users to fill them out. Participants answered the research questions voluntarily and could withdraw at any time, but only one for each IP address was allowed (Table 2).

In this study, descriptive statistical analysis using SPSS 26.0 to understand the general data information. The demographic data were investigated, as shown in Table 1. Females accounted for the largest number of respondents (67.6%). Regarding education level, most respondents have undergraduate degrees (55.5%) and above (35.5%). Digital Costume Museum’s users are young people (aged 18–34, 83.5%) who were interested in clothing culture or engaged in professional study. There are three reasons for this. First, museums are increasingly anxious to target young people as members or donors to expand the audience (Kotler, 2001). Secondly, such users have grown up in the Internet era, and they have been accustomed to using digital technology to obtain information (Wang, 2018). The possible reason is that, because most of our questionnaires are online and limited by collection methods, young people are more flexible in completing questionnaires through online platforms. Third, the mobile Internet eliminates the spatial and temporal limitations of information acquisition and communication among users. Compared with traditional methods such as books and documentaries, the Internet is considered a more convenient way to obtain information. Therefore, the young generations are essential users, and their opinions should be considered in constructing digital costume museums.

### Data Analysis and Model Validation

#### Analysis of Reliability and Convergent Validity

SPSS 26.0 software was used to analyze the reliability of the collected data. The specific results are shown in the following Table 3. The Cronbach’s $\alpha$ of each construct was between .758 and .860, which was higher than the threshold level of .7 as suggested by Nunnally (1967). The construct’s Cronbach’s $\alpha$ after deleting any item is lower than the current result, indicating that the measurement items have good reliability and can be used for further analysis.
In this study, exploratory factor analysis (EFA) was used to verify the internal consistency of each construct. The principal component analysis was used to extract the new factors with eigenvalues greater than 1 for each construct. The results show that the KMO value between each construct is greater than 0.50 and the significance of the Bartlett sphere test is less than 0.05, which indicates a significant correlation between the measures, which is suitable for exploratory factor analysis (Kaiser, 1974; Norusis, 1992). All items belonging to each dimension are involved in the extraction process of new factors, and only one new factor with eigenvalue greater than 1 can be extracted (Harman, 1976), indicating that each construct has good internal consistency (Kohli et al., 1998). As shown in Table 4, it is found that the KMO

### Table 2. Demographic Information of Respondents.

| Sample Categories | Number | Percentage |
|-------------------|--------|------------|
| **Gender**        |        |            |
| Male              | 86     | 32.4       |
| Female            | 179    | 67.6       |
| **Age (years)**   |        |            |
| 18–25             | 148    | 55.9       |
| 26–34             | 74     | 27.9       |
| 35–54             | 38     | 14.3       |
| 55–64             | 5      | 1.9        |
| **Education**     |        |            |
| High school       | 24     | 9.1        |
| Bachelor degree   | 147    | 55.5       |
| Master’s degree   | 82     | 30.9       |
| Doctoral degree   | 12     | 4.5        |
| **Occupation**    |        |            |
| Practitioners in the textile industry | 49 | 18.5 |
| Practitioners in the garment industry | 27 | 10.2 |
| Researchers in garment or related | 52 | 19.6 |
| Students in garment or related | 137 | 51.7 |

### Table 3. Reliability and Convergent Validity.

| Construct | Item | Significance of estimated parameters | Item Reliability |
|-----------|------|-------------------------------------|------------------|
| IR        | IR1  | 1.000 — — | .0790 .822 0.610 0.824 | |
|           | IR2  | 0.918 0.068 13.434 .000 | 0.812 | |
|           | IR3  | 0.88 0.072 12.195 .000 | 0.742 | |
| IQ        | IQ1  | 1.000 — — | .753 .758 0.518 0.762 | |
|           | IQ2  | 0.871 0.076 11.454 .000 | 0.740 | |
|           | IQ3  | 0.807 0.079 10.187 .000 | 0.659 | |
| PC        | PC1  | 1.000 — — | .831 .799 0.597 0.813 | |
|           | PC2  | 0.914 0.071 12.873 .000 | 0.780 | |
|           | PC3  | 0.667 0.061 10.909 .000 | 0.668 | |
| PP        | PP1  | 1.000 — — | .726 .843 0.667 0.855 | |
|           | PP2  | 1.313 0.098 13.411 .000 | 0.888 | |
|           | PP3  | 1.36 0.108 12.632 .000 | 0.817 | |
| PEOU      | PEOU1 | 1.000 — — | .746 .777 0.539 0.778 | |
|           | PEOU2 | 1.024 0.088 11.681 .000 | 0.755 | |
|           | PEOU3 | 1.016 0.093 10.914 .000 | 0.705 | |
| PU        | PU1  | 1.000 — — | .795 .782 0.560 0.79 | |
|           | PU2  | 0.965 0.076 12.697 .000 | 0.756 | |
|           | PU3  | 0.75 0.068 11.093 .000 | 0.673 | |
| ATT       | ATT1 | 1.000 — — | .797 .841 0.64 0.842 | |
|           | ATT2 | 1.049 0.072 14.535 .000 | 0.829 | |
|           | ATT3 | 1.022 0.076 13.427 .000 | 0.776 | |
| BI        | BI1  | 1.000 — — | .869 .860 0.692 0.869 | |
|           | BI2  | 0.769 0.055 14.108 .000 | 0.752 | |
|           | BI3  | 0.923 0.055 16.893 .000 | 0.856 |
value of each variable is greater than 0.68, and the significance probability of the Bartlett spherical test is 0.000. The measure terms of each variable are significantly correlated with each other.

In addition, considering the convergent validity and discriminant validity of the model, confirmatory factor analysis was performed using AMOS. Factor loading coefficient shows the correlation between factor and measurement items. Generally, the standard load coefficient can be viewed for analysis, and loadings of .5 or greater are also considered practically significant (Hair et al., 1998). In addition, all composite reliability (CR) values of each construct were greater than .7 (Chin, 1998), and the average variance extracted (AVE) values were greater than .5 (Fornell & Larcker, 1981), indicating that the data of this measurement scale has excellent aggregation validity. As shown in Table 3, all measurement items show a significance of .001 ($p < .001$), and the standardized loading coefficient values, CR value, and AVE value in this study were all within the standard threshold value, indicating that the polymerization validity is good. As shown in Table 5 below, the square roots of all the AVE values are larger than all the correlation coefficients between constructs, which again indicates that the research data has good discriminative validity (Fornell & Larcker, 1981).

### Table 4. Results of KMO and Bartlett Sphere Test.

| Construct | KMO | Bartlett sphere test | Item | Commonality | Factor loadings | Eigenvalue | Total variation explained % |
|-----------|-----|---------------------|------|-------------|----------------|------------|-----------------------------|
| IR        | 0.714 | 0.000 | IR1 | 0.740 | 0.860 | 2.217 | 73.90 |
|           |       |         | IR2 | 0.772 | 0.879 |   |
|           |       |         | IR3 | 0.705 | 0.840 |   |
| IQ        | 0.687 | 0.000 | IQ1 | 0.683 | 0.826 | 2.026 | 67.55 |
|           |       |         | IQ2 | 0.717 | 0.847 |   |
|           |       |         | IQ3 | 0.626 | 0.791 |   |
| PC        | 0.690 | 0.000 | PC1 | 0.767 | 0.876 | 2.143 | 71.44 |
|           |       |         | PC2 | 0.745 | 0.863 |   |
|           |       |         | PC3 | 0.632 | 0.795 |   |
| PP        | 0.693 | 0.000 | PP1 | 0.686 | 0.828 | 2.294 | 76.47 |
|           |       |         | PP2 | 0.837 | 0.915 |   |
|           |       |         | PP3 | 0.771 | 0.878 |   |
| PEOU      | 0.686 | 0.000 | PEOU1 | 0.662 | 0.814 | 2.080 | 69.32 |
|           |       |         | PEOU2 | 0.755 | 0.869 |   |
|           |       |         | PEOU3 | 0.662 | 0.814 |   |
| PU        | 0.683 | 0.000 | PU1 | 0.732 | 0.855 | 2.088 | 69.61 |
|           |       |         | PU2 | 0.746 | 0.864 |   |
|           |       |         | PU3 | 0.610 | 0.781 |   |
| ATT       | 0.719 | 0.000 | ATT1 | 0.746 | 0.865 | 2.277 | 75.90 |
|           |       |         | ATT2 | 0.799 | 0.894 |   |
|           |       |         | ATT3 | 0.731 | 0.855 |   |
| BI        | 0.708 | 0.000 | BI1 | 0.830 | 0.911 | 2.344 | 78.14 |
|           |       |         | BI2 | 0.697 | 0.835 |   |
|           |       |         | BI3 | 0.817 | 0.904 |   |

### Table 5. Correlation Matrix and AVE.

|           | IR    | IQ    | PC    | PP    | PEOU   | PU    | ATT    | BI    |
|-----------|-------|-------|-------|-------|--------|-------|--------|-------|
| Information richness | 0.781 |       | 0.720 |       |        |       |        |       |
| Information quality  | 0.606 | 0.720 |       | 0.773 |        |       |        |       |
| Perceived convenience | 0.509 | 0.612 | 0.773 |       | 0.817  |       |        |       |
| Perceived playfulness | 0.508 | 0.465 | 0.351 | 0.817 |       | 0.734 |        |       |
| Perceived ease of use | 0.599 | 0.645 | 0.505 | 0.591 | 0.734  |       |        |       |
| Perceived usefulness | 0.641 | 0.614 | 0.608 | 0.526 | 0.641  | 0.748 |       |       |
| Attitude            | 0.656 | 0.610 | 0.540 | 0.554 | 0.644  | 0.677 | 0.800  |       |
| Behavioral intention | 0.482 | 0.457 | 0.360 | 0.666 | 0.568  | 0.542 | 0.637  | 0.832 |

Note. The items on the diagonal on bold represent the square roots of the AVE.
To ensure that the data are consistent with the theoretical model, the model fitting degree is required to meet the standard. AMOS 23.0 software was used to test the proposed model. As shown in Table 6, the overall model fit indices are as follows: $\chi^2/df = 2.093 < 3$, RMSEA = 0.064 < 0.10, CFI = 0.929 > 0.9, NNFI = 0.918 > 0.9, TLI = 0.918 > 0.9, IFI = 0.930 > 0.9, and SRMR = 0.064 < 0.10, of which meet the model fit standard. In conclusion, the model has relatively ideal statistical significance and meets the research needs.

The path coefficient of the structural equation reflects the correlation relationship and influence effects of each path in the model. The standardized effect values were shown in Table 7, and the influences between variables in the structural model were shown in the following Figure 3. The results showed that the influence path of PC on PP was not significant ($p = .056 > .05$), which indicated that PC did not have an influence relationship on PP. The other 10 path hypotheses are all significant. ATT ($p = .000 < .01$) and PP ($p = .000 < .01$) have positive effects on BI, hence, H1 and H2 are supported. PU has significant effects on ATT ($p = .000 < .01$), hence, H3 is supported. PEOU has positive effects on PP ($p = .000 < .01$) and PU ($p = .000 < .01$), hence, H4 and H5 are supported. PC has significant effects on PU ($p = .001 < .01$), hence, H6 is supported. Furthermore, IQ has positive effects on PC ($p = .000 < .01$) and PEOU ($p = .000 < .01$), hence, H8 and H9 are supported. IR has positive effects on PU ($p = .000 < .01$) and PP ($p = .014 < .05$), hence, H10 and H11 are supported.

In addition, ATT\PP explained 64.4% of the overall variation of BI toward using digital costume museums. PU explained 78.3% of the overall variation of ATT. PC\IREOU explained 87.8% of the overall variation of PU. Next, IQ explained 72% of the overall variation of PEOU. IR\POEU explained 49.7% of the overall variation of PP. IQ explained 58.6% of the overall variation of PC.

### Results and Discussion

The results of the empirical analysis provide some key findings, which are discussed in detail below.

H1, H2, and H3 are valid, representing that perceived usefulness (PU) and perceived playfulness (PP) are essential factors that affect the intention of using digital costume museums. In other words, personal acceptance of the digital costume museum is closely related to external and internal motivational factors. The result is consistent with the previous research of adoption models of digital museums (Hung et al., 2013; Wu, 2013). Online museums need to create accessible and usable information. Different audiences can use these digital resources, from recent visitors interested in learning more about museum collections to academic researchers from foreign universities looking for specific collections (Marty, 2008). It can be seen from the empirical results that when users can obtain helpful information in the digital costume museum to help them complete their learning tasks, they believe that the system is more beneficial than another way. This positive attitude can be transformed into actual use behavior, increasing the frequency. At the same

### Structural Model Assessment

To ensure that the data are consistent with the theoretical model, the model fitting degree is required to meet the standard. AMOS 23.0 software was used to test the proposed model. As shown in Table 6, the overall model fit indices are as follows: $\chi^2/df = 2.093 < 3$, RMSEA = 0.064 < 0.10, CFI = 0.929 > 0.9, NNFI = 0.918 > 0.9, TLI = 0.918 > 0.9, IFI = 0.930 > 0.9, and SRMR = 0.064 < 0.10, of which meet the model fit standard. In conclusion, the model has relatively ideal statistical significance and meets the research needs.

The path coefficient of the structural equation reflects the correlation relationship and influence effects of each path in the model. The standardized effect values were shown in Table 7, and the influences between variables in the structural model were shown in the following Figure 3. The results showed that the influence path of PC on PP was not significant ($p = .056 > .05$), which indicated that PC did not have an influence relationship on PP. The other 10 path hypotheses are all significant. ATT ($p = .000 < .01$) and PP ($p = .000 < .01$) have positive effects on BI, hence, H1 and H2 are supported. PU has significant effects on ATT ($p = .000 < .01$), hence, H3 is supported. PEOU has positive effects on PP ($p = .000 < .01$) and PU ($p = .000 < .01$), hence, H4 and H5 are supported. PC has significant effects on PU ($p = .001 < .01$), hence, H6 is supported. Furthermore, IQ has positive effects on PC ($p = .000 < .01$) and PEOU ($p = .000 < .01$), hence, H8 and H9 are supported. IR has positive effects on PU ($p = .000 < .01$) and PP ($p = .014 < .05$), hence, H10 and H11 are supported.

### Table 6. Main Test Indicators for Model Fitting.

| Common indices | $\chi^2/df$ | RMSEA | CFI | NNFI | TLI | IFI | SRMR |
|----------------|-------------|-------|-----|------|-----|-----|------|
| Judgment criteria | $< 3$ | $< 0.10$ | $> 0.9$ | $> 0.9$ | $> 0.9$ | $> 0.9$ | $< 0.1$ |
| Value | 2.093 | 0.064 | 0.929 | 0.918 | 0.918 | 0.930 | 0.064 |

### Table 7. Hypothesis Test Results.

| IV $\rightarrow$ DV | Unstd | SE | Unstd./SE | $p$-Value | SD | $R^2$ | Result |
|---------------------|-------|----|-----------|----------|----|-------|--------|
| ATT $\rightarrow$ BI | 0.535 | 0.093 | 5.731 | .000 | 0.375 | .644 | H1 is valid |
| PP $\rightarrow$ BI | 0.667 | 0.089 | 7.463 | .000 | 0.535 | .644 | H2 is valid |
| PU $\rightarrow$ ATT | 0.851 | 0.071 | 11.907 | .000 | 0.885 | .783 | H3 is valid |
| PP $\rightarrow$ PEOU | 0.688 | 0.131 | 5.257 | .000 | 0.629 | .497 | H4 is valid |
| PEOU $\rightarrow$ PU | 0.459 | 0.084 | 5.479 | .000 | 0.461 | .878 | H5 is valid |
| PC $\rightarrow$ PU | 0.196 | 0.060 | 3.241 | .001 | 0.218 | .878 | H6 is valid |
| PC $\rightarrow$ PU | 0.196 | 0.060 | 3.241 | .001 | 0.218 | .878 | H6 is valid |
| PC $\rightarrow$ PP | -0.175 | 0.092 | -1.915 | .056 | -0.178 | .497 | H7 is invalid |
| IQ $\rightarrow$ PC | 0.867 | 0.086 | 10.029 | .000 | 0.766 | .586 | H8 is Valid |
| IQ $\rightarrow$ PEOU | 0.864 | 0.086 | 10.042 | .000 | 0.848 | .720 | H9 is valid |
| IR $\rightarrow$ PU | 0.383 | 0.076 | 5.017 | .000 | 0.381 | .878 | H10 is valid |
| PP $\rightarrow$ IR | 0.269 | 0.109 | 2.461 | .014 | 0.244 | .497 | H11 is valid |

Note. $\rightarrow$ represents the path relationship.
time, they will be promoted to other people around them to build a stronger and lasting relationship. In addition, the museum has become an “entity of knowledge and leisure”, encouraging the convergence of the two fields of education and entertainment, called “edutainment” (Addis, 2005; Pallud & Straub, 2014). The results prove that neither traditional nor digital costume museums should underestimate the importance of perceived playfulness in user experience.

H4 and H5 are valid, which represent that perceived ease of use (PEOU) is significantly positively correlated with users’ perceived playfulness (PP) and perceived usefulness (PU) of digital costume museums. Starting with usability issues, many researchers and practitioners believe that the key barrier to user acceptance is the lack of user friendliness of the current system. However, the traditional methods to improve usability have always focused on usability (Moon & Kim, 2001). Digital costume museums assist users with a friendly interactive interface for operation, which helps them spend less time and encounter fewer difficulties acquiring information, thus enhancing their perceived usefulness. On the other hand, previous studies have linked perceived ease of use to the pleasure of interacting with computer systems and flow experience during computer interaction. An information system that is difficult to use is unlikely to be considered pleasant.

H6 is valid, which means that perceived convenience (PC) positively impacts perceived usefulness (PU) of digital costume museums. Changes in the use of museum information resources have brought new levels of access and forms of interaction to museum visitors over the past few decades. These changes are most obviously reflected in the relationship between museums, museum websites, and tourists. Using various interactive tools can eliminate the old information access barriers and change the way visitors are close to the museum items (Marty, 2008). It reduces specific space and time limits, blurring the boundaries between the in-house museum and the online museum visit. Therefore, when using digital costume museums, users can be satisfied with the convenience of time, place, and executive, which means they can get information anytime and anywhere. They believe that the system is more practical and quickly helps them complete the learning tasks.

H7 is invalid, indicating that there is no significant correlation between perceived convenience (PC) and perceived playfulness (PP) toward using digital costume museums. Traditional museums and digital museums are interdependent and develop together. The former is the foundation of culture, while the latter is the window for its extension. Although the digital space and the physical space of museums exist simultaneously, they are two completely different ways. Prior research showed that visitors are more inclined to visit physical costume and textile museums to thoroughly see the artefacts (Saiki & Robbins, 2008). The images cannot present a complete history and art information and show the

Figure 3. The influence between variables in the structural model.
specific features like material and skills because costumes and accessories are tactile, embodied objects. On the other hand, it is essential that only when people are in the “space” can they get the multifaceted experience. The respondents of this study are mainly professionals in the clothing field, who more or less have visited physical costume museums and have good knowledge, cognition, and emotional expectation before using digital costume museums. While we can easily access content, services, and functions through digital platforms, it is also important to realize that physical costume museums cannot be replaced entirely.

H8 and H9 are valid, which means that information quality (IQ) toward users positively affects the perceived convenience (PC) and perceived ease of use (PEOU) of digital costume museums. Research shows that the high-quality information provided by digital costume museums is more likely to provide a more convenient way (e.g., time-and geographically limited user access, well-designed site layout and navigation, and appropriate interface formats to present information and content) for busy learners to use it. Moreover, if the information provided by the digital costume museum is not up-to-date, irrelevant, or incorrect (i.e., offers low IQ), the user needs to find an alternative way to obtain the information. As a result, users will spend more time and energy, and even find it less convenient than visiting a traditional museum. In addition, the study also confirmed that the system operation interface is orderly and precise, which is helpful for users to realize fast browsing, accurate positioning, and even efficient access to resources. In other words, the system provides excellent information quality, users’ needs, and expectations will be met. This study provides valuable insight that IQ is a crucial predictor of PC and PEOU, which ultimately has essential significance.

H10 and H11 are valid, which mean that information richness (IR) positively affects users’ perceived usefulness (PU) and perceived playfulness (PP). In digital costume museums, the resulting attempts to explore IR is still an essential determinant in the technological context. On the one hand, online museum visitors are likely to use diversified online museum resources, especially online images and research materials. The digital costume museum provides supplementary information through multimedia content such as text, image, and video, which expands the traditional way of presenting clothing. It helps users observe the characteristics of traditional costumes from multiple perspectives easily to deepen their understanding of clothing culture. At the same time, it is helpful for teachers and students to obtain beneficial or valuable resources to complete their study or research tasks. On the other hand, previous research points out that the emotional response caused by eye-catching graphic messages is more emotional reactions than the plain text message (Flores et al., 2014; Keib et al., 2018). Some cases have confirmed that digital costume museums provide interactive information with various forms of expression and a strong three-dimensional sense of image, making users happier in exploring clothing.

Conclusions and Suggestions

Theoretical Implications

The value of traditional Chinese costumes is that they reflect many aspects of the social development and lifestyle of the Chinese nation. In modern society, with the acceleration of the pace of life, the strengthening of foreign exchange, and the constraints of economic factors, traditional costumes are gradually fading out of our lives. The protection of physical objects is imminent. Therefore, more people need to have a specific basic understanding of cultural resources such as textile technology, printing and dyeing skills, and embroidery for traditional costumes to inherit the cultural spirit and increase cultural recognition of traditional Chinese costumes. Compared with traditional costume museums, new narrative and communication methods based on modern technology and digital information technologies such as the Internet, cloud computing, and virtual reality interaction are incorporated into today’s digital costume museum system. However, current research has extensively explored the influence of museum websites on visitors’ intentions, and few studies have examined the influence of costume museum websites on visitors’ intentions.

Most visitors come to a museum voluntarily and purposefully and gradually shift from passive and single information receivers to “active creators” in exhibitions. Therefore, it is critical to help managers, researchers, and professionals in digital costume museums realize the importance of improving user perception and understanding. At the theoretical level, this research clarifies the ambiguous causal relationship between variables not revealed in previous studies and better explains how to increase digital costume museums’ adoption rate from a technical perspective. First, this study explores actual users’ behavior attention through the TAM model and system characteristic factors. The model developed 11 hypotheses, 10 of which were statistically significant. Our results show that PP, PU, and ATT determine users’ BI using DCM, consistent with previous research results. Second, this research extends eight primary bodies of literature by this model and sheds new light on the role of information quality and information richness delivered by digital costume museums to strengthen the users’ usage intention. Therefore, the DCM improves the quality and richness of information, which can help learners improve their perception and meet their knowledge and emotional needs. Third, one of the hypotheses in our study is not valid, which is to remind researchers to pay attention to some issues. Despite concerns that the use of digital technologies might undermine the need to conserve the “real thing,” the widely accepted heritage organizations and professional bodies related guidelines and recommended practices are advocating to use digital technologies to improve the access and understanding of sites and collections, but not as a tool of long-term preservation that can replace the preservation of the original physical needs (Biedermann, 2017; Economou,
Practical Implications

The innovative use of digital costume museums can potentially resolve the dilemmas faced by many traditional museums, increasing the number of visitors with limited physical space and financial shortages. Although digital costume museums have many benefits, they cannot completely replace traditional costume museums. A study on content analysis of 60 costume and textile collection websites shows that digital costume museums stimulate many users to visit physical museums to appreciate all the actual relics (Saiki & Robbins, 2008). In addition, the digital costume museum is a better way to promote the dissemination and innovation of clothing culture. For example, the Costume Institute of Metropolitan Museum of Art actively uses the Internet to encourage fashion designers and students to learn about historical costume collections and stimulate creative inspiration (Sauro, 2009). Therefore, establishing a digital costume museum using the Internet as a medium has specific practical significance. The digital costume museum has developed to a certain extent in terms of quantity and quality, but the details need to be improved in the systematic construction.

Second, information transmission forms should be further diversified. As an information dissemination system, the DCM’s ultimate goal is maximizing the transmission of information to the public through the media (Jiang et al., 2017). The display mode of “picture + text + multimedia” adopted by traditional museums is too monotonous and boring. Using PCs, mobile phones, and other terminal devices, the digital costume museum can adopt rich and engaging media forms such as “text + voice + images + three-dimensional models + video + VR interaction” to promote the integration of knowledge, science, and art, which will better illustrate the physical characteristics of clothing and spread cultural information. Therefore, in displaying digital apparel resources, it is necessary to pay full attention to the artistic value of resources. An esthetic design that fully combines dynamic and static visualization will create an excellent cultural atmosphere and bring a pleasant browsing experience.

Third, “Experience” is the keyword of the relationship between digital costume museums and the audience. The exterior design of the digital costume museum using the Internet is essentially an interface design. In the DCM’s planning and design, we consider the information quality of the clothing exhibition and the exhibit itself and improve the accuracy of the interface elements to convey the functional goals. In terms of operating methods, compared with the venue-oriented display methods of Western digital museums such as Google, Art & Culture, the exhibition-oriented display methods are clear, lively, and more targeted. Regarding browsing methods, information components such as map navigation design, control interface design, and exhibition loading process are indispensable components in constructing the DCM. Information presentation cannot be limited to the gorgeous appearance and advanced technology but needs to start from the visitors’ standpoint. The digital costume museum should optimize the navigation design and adopt the flat information organization and classification mode to simplify the visual memory burden of visitors and provide the possibility to improve the users’ ease of use and convenience. The navigation design of digital costume museums should be optimized, and the information arrangement and classification should be flat. These implementations will simplify the visual memory burden of visitors and provide the possibility to improve the users’ ease of use and convenience.

Limitation and Future Research

We have identified two principal limitations to this research. First of all, the respondents of the digital costume museum are mainly college students or professionals in costume-related majors, which may limit the sample coverage of this study. In further research, the model can have a better universality by expanding the scope of the questionnaire survey target group. Secondly, digital costume museums are primarily presented in the form of websites. There are many indicators for website evaluation (system quality, esthetics, promotion, made-for-the-medium, etc.), stimulating visitors’ intentions. Next, more measurement indicators can be introduced to enrich the model’s content.

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