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Embracing the Unseen Artist: Audience Acceptance of Generative AI Art Content

Jueming Li [1], Sang Hee Kweon [2,*] and Boyoung Kang [3]

[1] Department of Media and Communication, Sungkyunkwan University; Ph.D. Student; jmlee0629@skku.edu
[2] Department of Media and Communication, Sungkyunkwan University; Professor; skweon@skku.edu
[3] Department of Entertainment Management, Dong-Ah Institute of Media and Arts; Professor; smileboyoung@dima.ac.kr
* Correspondence

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Abstract: *This study explores the acceptance of art created by generative AI, focusing on cultural and artistic forms such as novels, paintings, and music. It proposes a new model for understanding the acceptance of generative AI art. The research questions examine how external factors, specifically presence and immersion, affect internal factors like perceived usefulness and ease of use, and how these factors influence user satisfaction and intention to continue using the technology. A survey was conducted, yielding 450 valid responses. The results revealed significant correlations among key variables: presence had a strong positive correlation with perceived usefulness ($r = 0.651$, $p < .001$), and immersion was also positively correlated with perceived usefulness ($r = 0.644$, $p < .001$). Furthermore, perceived usefulness was significantly linked to content satisfaction ($r = 0.675$, $p < .001$), while perceived ease of use showed a positive correlation with technological satisfaction ($r = 0.618$, $p < .001$). Additionally, the correlation between content satisfaction and intention to continue using the technology was high ($r = 0.823$, $p < .001$). This study is significant as it presents an initial theoretical model for generative AI art content and empirically confirms the characteristics, acceptance factors, and experiential effects of generative AI in the fields of art and culture.*

Keywords: Generative AI; Art Content; Technology Acceptance Model; Presence; Immersion

1. Introduction

Artificial intelligence (AI) is changing the structure of society and is being used in a wide range of fields. The initial forms of AI technology focused on logical reasoning, expert systems, machine learning, and natural language processing. Subsequently, AI technology has been widely used in many fields, including healthcare, financial services, e-commerce, manufacturing, transportation and logistics, education, agricultural technology, and the arts [1]. In recent years, innovative advancements in AI technology, particularly in deep learning algorithms such as Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs), have provided technical support for the application and expansion of AI technologies in the field of art [2].

The discourse surrounding the potential for artificial design in neuroscience began in the late 1940s [3]. In 1943, it was demonstrated that connecting artificial neurons, which function similarly to electrical switches, in a network could replicate exceedingly simple functions performed by the human brain [3]. In 1950, Alan Turing developed the Turing Test to determine whether computers possess human-level intelligence. The concept of the Visual Turing Test, first introduced and popularized by the Display Systems Research (DSR) division of Meta Reality Labs, aims to assess whether the virtual world perceived through VR headsets can be distinguished from the real world. Nevertheless, as of now, no VR technology has been reported to successfully pass the Visual Turing Test. While today's VR technology gives users a sense of presence in virtual spaces, it still cannot replicate the real world to the same extent.

Nevertheless, related AI technologies continue to develop rapidly, gaining significant market potential in the augmented reality (AR) and virtual reality (VR) sectors. Recently, market research firm IDC predicted that the global AI market is expected to reach $554.3 billion by 2024 [4]. Among these technologies, generative AI has

garnered the most attention and utilization. ChatGPT, developed by OpenAI, has garnered widespread recognition for its demonstration of generative AI capabilities and applications. Based on the Generative Pre-trained Transformer (GPT-3.5) model, ChatGPT was launched in November 2022 and recording 100 million users within just two months. Such generative AI now possesses capabilities previously thought to be exclusive to humans, including calculation, analysis, reasoning, cognition, and creative arts. Additionally, AI technology is being used as a tool for creation and is expected to drive changes in the media and content industry ecosystem [5]. According to a recent report by Grand View Research, the global generative AI market was valued at $10.14 billion in 2022 and is expected to grow at an average annual rate of 35.6% from 2023 to 2030, reaching $109.37 billion [4]. With the increasing demand across various domains, the generative AI market is expected to continue expanding.

Existing literature primarily focuses on notable generative AI technologies such as ChatGPT, Midjourney, and DALL-E, discussing their developmental processes and various applications. However, the body of research on generative AI as a new term remains quite limited, mostly consisting of big data studies, literature reviews, or qualitative research. Therefore, this study aims to establish a theoretical model for generative AI in the field of artistic media and contribute to the theoretical development of generative AI by integrating the technology acceptance model. Furthermore, it seeks to provide systematic guidance for the application and development practices of generative AI in the field of art.

2. Literature Review

2.1 Generative AI, Art Content

The term “Artificial Intelligence (AI)” was first introduced by Professor John McCarthy at the Dartmouth Summer Research Project in 1956. In 1959, Arthur Samuel popularized the term “machine learning” in 1959 in his article “Some Studies in Machine Learning Using the Game of Checkers.” [3]. Since then, AI has experienced two periods of stagnation, but starting in the 1990s, it achieved rapid development through the advent of the internet and the application of big data [6]. AI refers to computer systems or technologies that simulate and implement human abilities such as perception, learning, and reasoning to automatically or intelligently perform tasks [5]. The latest advances in AI technology involve generating text and images based on user input [7]. Generative AI is a technology that generates outputs similar to or new compared to the input, based on pre-learned data, with the output results including text, images, videos, audio, and code [8].

Generative AI content, such as text, image, and music, possesses a certain degree of artistic value and has been rapidly evolving in the media and arts sectors in recent years [9]. Currently, AI-generated technology is widely applied in various artistic fields, including AI painting, AI imaging, AI music, AI sculpture, AI poetry, and other forms of art [10]. One of the key features of generative AI is its ability to create images based on user-provided text inputs, which is why painting and photography constitute a significant portion of AI-generated artworks. In October 2018, the first-ever original work of art created using AI, Portrait of Edmond de Belamy, fetched a whopping $432,500 at auction, shattering the $10,000 estimate. Since then, artists have begun utilizing AI painting techniques in the form of “text-to-image generation” [11]. In August 2022, the artwork “Théâtre D’opéra Spatial” (Space Opera Theater), created using an AI program Midjourney took first place in the digital category at the Colorado State Fair, creating a significant stir in the art world [9], [12]. Notable generative AI painting programs include Midjourney, DALL·E, Google Deep Dream, Auto Draw, and Sketch-RNN.

Generative AI photography technology has also made significant advancements. German photographer Boris Eldagsen created a photo using AI technology, “The Electrician” which took first prize in the Creative category at the World Photography Organization’s Sony World Photography Awards. In this competition, Boris created a black-and-white image depicting an elderly woman standing behind a younger woman, holding her shoulder and gazing off into the distance. Notable generative AI photography programs include Generated Photos and GauGAN. Generated Photos is a platform that utilizes a Generative Adversarial Network (GAN) to create copyright-free portraits. Nvidia’s GauGAN model allows for the creation of landscapes that do not exist in reality, using various landscape photos as input. Moreover, Examples of Generative AI music include Beat Blender, Google Doodle Bach, AIVA, Duet, and Neural Synth. In the field of novel, models such as ChatGPT and NovelAI are being used as “Storytellers” roles because AI has the natural benefits of text generation.

In recent years, the emergence of various AI art creation tools has provided artists with new methods and platforms for creative expression. However, as AI is used to generate art, issues related to copyright and revenue have emerged, sparking widespread societal discussions about AI-generated art. For instance, traditionalists in the past believed that AI tools would fully automate artistic creation, posing a threat to “art itself”. They

considered AI to be a worker rather than a real artist, and feared that an excess of AI-generated art could lead to the disappearance of genuine art. In contrast, [13] argued that technological change does not herald "the demise of art" but rather has more complex effects, reshaping the role and practices of creators while altering the aesthetics of contemporary media. Of course, some studies have pointed out potential issues such as copyright disputes related to generative AI, noting that some AI-generated content is not protected under existing intellectual property laws. Experts are conducting in-depth research and discussions on these concerns.

Previous studies have explored the concept, development process, and application cases of generative AI, as well as comparisons among different generative AI models. However, there has been little empirical research on the actual user experience of AI-generated content. As generative AI continues to evolve in response to market demands, the technologies it generates will be re-applied to the market. Thus, research into the characteristics and adoption of generative AI is essential, and empirical studies focusing on the expansion of the market will be needed. This study aims to contribute to future research by utilizing the TAM as its theoretical framework, examining the factors influencing users' adoption of generative AI.

2.2 Technology Acceptance Model (TAM)

In media research, TAM has been widely used to explain the process by which new information technologies are adopted [14]. While in earlier media environments, TAM was primarily applied to technologies such as the Internet, smartphones, and IPTV, recent advancements in AI have led to new developments in areas such as AI speakers, chatbots, and generative AI. TAM was originally developed by [15], based on the Theory of Reasoned Action (TRA), with the aim of improving task performance within organizations. This model establishes a psychological causal relationship in which perceptions lead to attitudes, which in turn influence the behavioral intention to use, eventually resulting in actual system use. Central to this process is the user's attitude, which is primarily determined by "perceived usefulness" and "perceived ease of use" [15].

Despite the increasing applicability of the TAM due to technological advancements, criticisms have arisen regarding its simplistic approach to explaining complex human behaviors based solely on perceived usefulness and ease of use [16]. The model has also been criticized for its insufficient consideration of external factors that could impact key determinants. Consequently, many researchers have expanded TAM by incorporating additional variables such as personal characteristics, social influence, and technological attributes [17]. Previous studies have identified external factors such as "self-efficacy", "enjoyment", "innovativeness", "system quality", "social image", "technology usage experience", "individual training", "choice availability", "operability", "cost" and "subjective norms". Additionally, psychological motivations like "intrinsic and extrinsic motivation" and "media usage motivation" also significantly influence user behavior [18]. This extended technology acceptance model (ETAM), which includes the influence of these external variables, has provided a more useful framework for explaining the causal relationship between the emergence of new media technologies and users' intention to use them [19].

2.2.1 Internal Factors: Perceived Usefulness, Perceived Ease of Use

Perceived usefulness and perceived ease of use are the two most important independent variables in the TAM, providing a multidimensional framework to explain users' attitudes toward technology [15]. Perceived usefulness refers to users' perceptions of how technology can improve their task performance, while perceived ease of use denotes the degree to which a user believes that a technology is easy to use without requiring significant physical or mental effort [18]. According to TAM, the more useful and easier the information technology or system is perceived to be, the more positively users' attitudes and behavioral intentions will be formed, facilitating the adoption and diffusion of new technologies [20].

In the context of generative AI, perceived usefulness and ease of use play a crucial role in the acceptance of new information technologies. Reference [21] explored the usefulness of generative AI in the arts, arguing that it fulfills users' creative intentions and enhances creative agency. According to [12], generative AI could make creative activities using AI possible. Reference [22] found that general audiences consuming artistic products largely held positive perceptions of generative AI. Reference [23] examined creative tools, discovering that interactive systems for transforming images enhanced user enjoyment and understanding of the artwork. AI-based creative tools in the arts can provide rapid results and innovative ideas, assisting creators in their work [9]. These prior studies indicate that the perceived usefulness and ease of use of generative AI play significant roles in users' acceptance of artistic content.

2.2.2 External Factors: Presence, Immersion

The external variables in the TAM include social, psychological, and technological factors [24]. Different external variables may influence the adoption of various types of new technologies. The use of generative AI art content provides vivid, immersive experiences characterized by presence and interactivity [25]. This study focuses on the external factors of presence and immersion.

Reference [26] defined presence in a media environment as the "sense of being with another," where the "other" can be either a person or an AI. Reference [16] explained that presence is related to the feeling that the media environment is real, with users' senses and actions responding to the media world rather than the physical world. In such cases, users may enter a subjective psychological state where they lose awareness of their physical surroundings and become immersed in the media environment.

Many previous studies have suggested a relationship between presence and perceived ease of use and perceived usefulness in the TAM, but have found different results. Reference [27] found that presence in virtual reality games positively influenced perceived usefulness but did not significantly affect perceived ease of use. Conversely, [28] discovered that presence in digital live services significantly affected perceived ease of use but not perceived usefulness. A study of virtual reality immersive content for smart seniors by [16] and a study of intention to continue using AI speakers by [14] found that presence positively influenced perceived usefulness and perceived ease of use.

Accordingly, the study proposes the following hypothesis:

H1: The presence of generative AI art content will positively affect perceived usefulness and perceived ease of use.

Immersion is another key characteristic in information and communication technologies (ICT), often associated with the flow theory in psychology. Flow is a state of deep immersion in an activity, where the activity itself becomes inherently enjoyable without the need for external rewards, leading individuals to lose awareness of their surroundings and experience an integration of their actions and thoughts. Accordingly, [24] defined immersion in human-computer interaction environments as users' tendency to maintain interest and enjoyment through continuous interaction, with a sense of discovery and rich opportunities. Reference [29] argued that flow experience can easily occur because generative AI is the newest information and communication technology that is currently emerging and requires users to experience concentration, enjoyment, and time distortion in the process of using it.

Previous studies have shown that immersion is an important external factor predicting perceived ease of use and usefulness. Reference [30] found that immersion influenced perceived usefulness in a study of web pages. Reference [31] reported that the more users experienced flow in mobile sports news, the higher their perceived usefulness. Reference [16] also found that immersion significantly influenced perceived ease of use in a study of virtual reality immersive content for smart seniors. Reference [29] claimed that immersion in generative AI affects perceived usefulness, satisfaction, and continuance usage intention.

Accordingly, the study proposes the following hypothesis:

H2: The immersion of generative AI art content will positively affect perceived usefulness and perceived ease of use.

2.2.3 Subsequent Effects: Attitude and Behavioral Intention

As the TAM has expanded, it increasingly connects emotional and affective aspects of individuals with the adoption process of innovative technologies [14]. Satisfaction, an emotional response felt after using a particular technology, is considered a critical affective variable in the TAM. It is defined as the psychological emotional state that a user experiences when expectations are met or a user's reaction to an experience [32]. According to the studies of [33] and [34], satisfaction can be divided into content satisfaction, social satisfaction, process satisfaction, and technology satisfaction. This study focuses on content satisfaction and technology satisfaction according to the TAM. Content satisfaction can be defined as the expected outcome of the specific information content obtained through internet access [35], whereas technology satisfaction can be defined as a user's favorable perception of the environmental elements supporting system use [36].

Satisfaction serves both as a result of adopting innovative information technology and as a predictor of usage intention. Reference [14] found that perceived usefulness and perceived ease of use positively impact satisfaction in their study on the intention to continue using AI speakers. Reference [37] demonstrated that perceived usefulness influences the satisfaction of usage of online tourism business sites. In another study on

factors influencing the continuance intention to use paid OTT services, perceived usefulness was identified as a predictor of satisfaction [38].

Accordingly, the study proposes the following hypothesis:

H3: Perceived usefulness of generative AI art content will positively influence users' content satisfaction and technology satisfaction.

H4: Perceived ease of use of generative AI art content will positively influence users' content satisfaction and technology satisfaction.

Continuance usage intention refers to users' intention to continue using innovative technology after its initial acceptance [39]. In the TAM, continuance usage intention is considered a subsequent form of the attitude variable. Many previous studies have indicated a strong relationship between satisfaction and continuance usage intention, showing that satisfaction can positively influence continuance usage intention. Reference [40] reported a positive relationship between satisfaction and the continuance usage of smartphones. According to [41], user satisfaction with social networking services (SNS) was found to positively affect the continuance use of SNS. Reference [42] found that user satisfaction positively influenced the continuance intention to use paid OTT services. Therefore, in the context of generative AI as an innovative technology, it can be assumed that satisfaction will also impact continuance usage intention.

Accordingly, the study proposes the following hypothesis:

H5: Users' content satisfaction and technology satisfaction will positively influence their continuance usage intention.

This study aims to measure the factors and effects related to the acceptance of generative AI art content. Specifically, it examines the effects of presence and immersion as external factors, and perceived usefulness and perceived ease of use as internal factors, on user satisfaction. Ultimately, the study seeks to measure how these factors influence users' continuance usage intention. The acceptance model of generative AI art content according to the research hypothesis is shown in Figure 1.

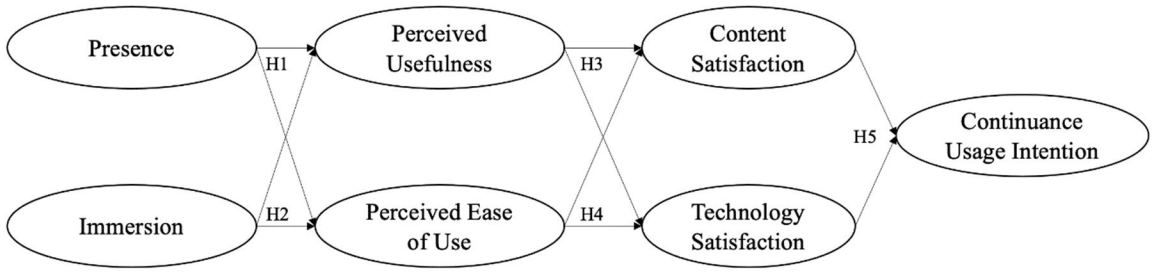

Figure 1. The Acceptance Model of Generative AI Art Content

3. Methods

3.1 Sampling and Data Collection

This study developed a questionnaire based on measurement scales for each variable. The dimensions of the variables included presence, immersion, perceived usefulness, perceived ease of use of generative AI art content, as well as users' content satisfaction, technology satisfaction, and continuance usage intention. The survey was conducted through an online survey link from the research company 'Embrain'. A convenience sampling approach was employed, which is a non-probability sampling method stratified by geographic location and age group. A total of 450 valid responses were collected over a three-week period from July 1 to July 20, 2022, in Korea.

3.2 Data Analysis Procedure

The collected data were cleaned and analyzed using the statistical programs SPSS 26.0 and AMOS 26.0. To verify the reliability and validity of each variable, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted. In addition, structural equation modeling (SEM) was used to test the research hypotheses. Finally, multidimensional scaling analysis was performed to examine other characteristics of generative AI art content.

3.3 Measurement Validation and Reliability Evaluation

All items in the questionnaire were measured using a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Presence was measured with three items referred to [43], such as: "Generative AI art content gives me a natural feeling as if I was in the real world" (*Cronbach's α* = 0.89, *M* = 3.99, *SD* = 1.28). Immersion was measured with three items referred to [44], such as: "I forgot about what was going on around me while experiencing Generative AI art content" (*Cronbach's α* = 0.90, *M* = 3.26, *SD* = 1.39). Perceived Usefulness was measured with three items referred to [15], such as: "Generative AI art content is useful" (*Cronbach's α* = 0.92, *M* = 3.72, *SD* = 1.26). Perceived Ease of Use was measured using two items based on research by [19], such as: "It is easy to use Generative AI art content" (*Cronbach's α* = 0.81, *M* = 4.13, *SD* = 1.31). Content Satisfaction was measured with four items adapted from previous satisfaction research by [45], such as: "The Generative AI art content gave me satisfaction overall" (*Cronbach's α* = 0.93, *M* = 4.04, *SD* = 1.28). Technology Satisfaction was measured with three items adapted from [46], such as: "The Generative AI art content system gave me satisfaction overall" (*Cronbach's α* = 0.93, *M* = 3.97, *SD* = 1.33). Continuance Usage Intention was measured using four items based on [47], such as: "I will try to use various Generative AI art content in the future" (*Cronbach's α* = 0.955, *M* = 4.20, *SD* = 1.40). The Cronbach's α values for the extracted factors were all above 0.7, indicating reliability. Therefore, we confirmed that we could use these measurement items to obtain the same results assuming repeated measurement.

3.4 Validity Evaluation

To ensure the validity of the rating scales used for the extracted factors, a confirmatory factor analysis (CFA) was conducted. This analysis aimed to evaluate the convergent validity of the constructs. Convergent validity is demonstrated when multiple measures intended to assess the same construct exhibit high correlations, indicating that the construct is accurately represented. The results of the convergent validity analysis are summarized in Table 1. For most constructs, the composite reliability (CR) values exceeded the recommended threshold of 0.70, and the average variance extracted (AVE) values were above the standard criterion of 0.50, demonstrating acceptable convergent validity and indicating that the items consistently measured their respective conceptual factors. However, the "perceived ease of use" construct showed relatively lower values (AVE = 0.392, CR = 0.563), suggesting limited convergent validity. Nevertheless, considering the exploratory nature of this study, the construct was retained for subsequent analyses.

Table 1. Results of Confirmatory Factor Analysis for Independent and Dependent Variables

	Factor Loading	S.E.	C.R.	P	AVE	Composite Reliability
Presence3<---Presence	0.868					
Presence2<---Presence	0.811	0.041	21.410	***	0.715	0.882
Presence1<---Presence	0.856	0.041	23.408	***		
Immersion3<---Immersion	0.905					
Immersion2<---Immersion	0.895	0.035	27.632	***	0.767	0.908
Immersion1<---Immersion	0.826	0.038	23.683	***		
Usefulness1<---Usefulness	0.825					
Usefulness2<---Usefulness	0.933	0.045	25.036	***	0.791	0.919
Usefulness3<---Usefulness	0.907	0.046	24.162	***		
Ease of Use2<---Ease of Use	0.612				0.392	0.563
Ease of Use1<---Ease of Use	0.640	0.097	11.687	***		
Content Satisfaction1<--- Content Satisfaction	0.865					
Content Satisfaction2<--- Content Satisfaction	0.859	0.041	24.710	***	0.756	0.952
Content Satisfaction3<--- Content Satisfaction	0.875	0.043	25.639	***		
Content Satisfaction4<--- Content Satisfaction	0.879	0.041	25.848	***		
Technology Satisfaction3<--- Technology Satisfaction	0.918				0.815	0.930
Technology Satisfaction2<--- Technology Satisfaction	0.891	0.032	30.406	***		

Technology Satisfaction1<---Technology Satisfaction	0.899	0.030	31.191	***		
Continuance Usage Intention1<---Continuance Usage Intention	0.865					
Continuance Usage Intention2<---Continuance Usage Intention	0.927	0.038	29.151	***		
					0.843	0.955
Continuance Usage Intention3<---Continuance Usage Intention	0.948	0.037	30.694	***		
Continuance Usage Intention4<---Continuance Usage Intention	0.930	0.038	29.369	***		

4. Results

4.1 Demographics

This study analyzed 450 valid survey responses collected in South Korea, with an equal distribution of male (50%) and female (50%) participants. In terms of age, 60% of respondents were between the ages of 20 and 49. Most participants were from metropolitan areas, including Seoul (24%) and major cities like Busan, Daegu, and Incheon (23.8%). Regarding education, 64.4% held a college degree or higher. Participants' occupations varied, with 32.4% working in white-collar positions and 36.9% categorized as laborers, students, or self-employed. In terms of income, 30.9% reported earning between 3 and 4.99 million KRW monthly.

4.2 Correlation Analysis

The correlation analysis between the independent and dependent variables revealed significant relationships among most variables (see Table 2). Notably, 'presence' demonstrated moderate to strong correlations with 'immersion' ($r = 0.712, p < .01$), 'perceived usefulness' ($r = 0.651, p < .01$), 'perceived ease of use' ($r = 0.611, p < .01$), 'content satisfaction' ($r = 0.730, p < .01$), 'technology satisfaction' ($r = 0.751, p < .01$), and 'continuance usage intention' ($r = 0.652, p < .01$). Similarly, 'immersion' was significantly correlated with 'perceived usefulness' ($r = 0.644, p < .01$), 'perceived ease of use' ($r = 0.485, p < .01$), 'content satisfaction' ($r = 0.733, p < .01$), 'technology satisfaction' ($r = 0.745, p < .01$), and 'continuance usage intention' ($r = 0.637, p < .01$).

Moreover, 'perceived usefulness' showed significant correlations with 'perceived ease of use' ($r = 0.616, p < .01$), 'content satisfaction' ($r = 0.675, p < .01$), 'technology satisfaction' ($r = 0.674, p < .01$), and 'continuance usage intention' ($r = 0.626, p < .01$). 'Perceived ease of use' also correlated significantly with 'content satisfaction' ($r = 0.615, p < .01$), 'technology satisfaction' ($r = 0.618, p < .01$), and 'continuance usage intention' ($r = 0.574, p < .01$). Additionally, 'content satisfaction' exhibited a strong correlation with 'technology satisfaction' ($r = 0.886, p < .01$) and 'continuance usage intention' ($r = 0.823, p < .01$). Lastly, 'technology satisfaction' was strongly correlated with 'continuance usage intention' ($r = 0.792, p < .01$).

Discriminant validity was established as the square root of the AVE for each construct exceeded the corresponding correlation coefficients, confirming that the measures of each construct were distinct.

Table 2. Correlation Matrix between Independent and Dependent Variables

	Presence	Immersion	Usefulness	Ease of Use	Content Satisfaction	Technology satisfaction	Continuance Usage Intention	AVE	Square root of AVE
Presence	1							0.715	0.854
Immersion	0.712**	1						0.767	0.876
Usefulness	0.651**	0.644**	1					0.791	0.890
Ease of use	0.611**	0.485**	0.616**	1				0.392	0.626

Content Satisfaction	00.730**	0.733**	0.675**	0.615**	1			0.756	0.870
Technology satisfaction	0.751**	0.745**	0.674**	0.618**	0.886**	1		0.815	0.903
Continuance Usage Intention	0.652**	0.637**	0.626**	0.574**	0.823**	0.792**	1	0.843	0.918

***Correlation is significant at the 0.01 level (two-tailed).*

4.3 Evaluation of the Research Model's Goodness-of-Fit

To test the research hypotheses, structural equation model analysis was conducted using AMOS. The goodness of fit of the research model was assessed. In this study, CMIN, CFI, TLI, NFI, AGFI and RMSEA were used to test the fit based on the indices referred to [48]. CMIN stands for the Chi-square value and is used to compare if the observed variables and expected results are statistically significant. CFI is the comparative fit index which has value truncated between 0 and 1 where values close to 1 show a very good fit [49]. TLI is Tucker-Lewis coefficient which varies depending on the sample size and complexity of the model. For the model to be acceptable it should have a TLI value higher than 0.9. NFI consists of scaling values between the (terribly fitting) independence model and the (perfectly fitting) saturated model. Reference [49] suggested that values above 0.90 indicate an acceptable fit. AGFI indicates the degree of freedom (df) for testing the model. Reference [49] suggested that AGFI value of 0.80 or greater indicates an acceptable fit. RMSEA is a goodness-of-fit index in SEM that assesses the discrepancy between the observed covariance matrix and the model-implied covariance matrix, taking into account model complexity. The results of the goodness-of-fit analysis for this study are detailed below.

As shown in the Table 3, all goodness-of-fit indices met the recommended criteria (CMIN/DF<5, CFI>0.9, TLI>0.9, NFI>0.9, AGFI > 0.8). Therefore, the overall fit of the research model was considered adequate.

Table 3. Results of Goodness-of-Fit Tests for the Proposed Research Model

CMIN	DF	P	CMIN/DF	CFI	TLI	NFI	AGFI	RMSEA
825.847	198	0	4.171	0.940	0.930	0.922	0.811	0.084

4.4 Hypothesis Testing and Result Analysis

This study proposed Hypotheses 1 and 2 that presence and immersion of generative AI art content affect perceived usefulness and ease of use of generative AI art content, Hypotheses 3 and 4 that perceived usefulness and ease of use affect content satisfaction and technology satisfaction, and Hypothesis 5 that content satisfaction and technology satisfaction affect users' continuance usage intention of generative AI art content. The results of the analysis are presented in Figure 2 and Table 4.

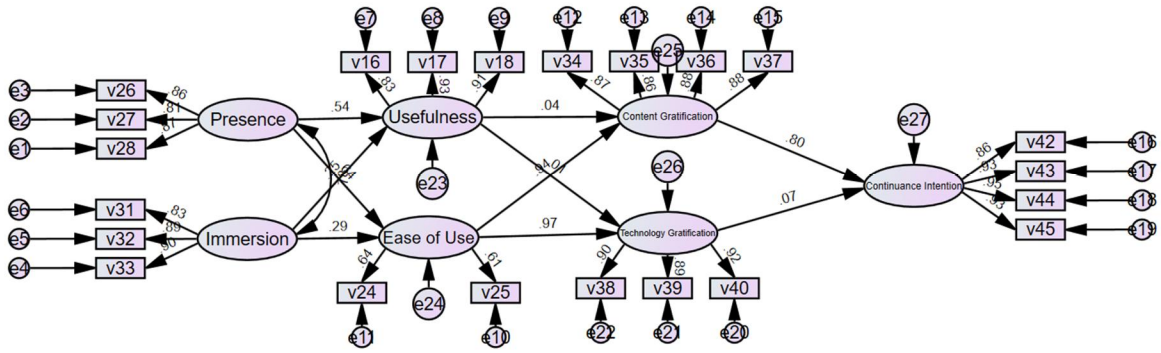

Figure 2. Hypothesis Testing Results for the Proposed Research Model

Table 4. Path Analysis Results for the Proposed Research Model

Path	Standardization Factor	S.E.	C.R.	P
Ease of Use<---Presence	0.638	0.046	9.196	***
Usefulness<---Presence	0.544	0.063	7.633	***
Usefulness<---Immersion	0.250	0.055	3.693	***
Ease of use<---Immersion	0.289	0.034	5.095	***
Technology Satisfaction<---Usefulness	0.010	0.050	0.224	0.823
Content Satisfaction<---Usefulness	0.043	0.045	0.995	0.320
Content Satisfaction<---Ease of Use	0.938	0.102	12.825	***
Technology Satisfaction<---Ease of Use	0.975	0.113	13.377	***
Continuance Usage Intention<---Content Satisfaction	0.798	0.154	5.547	***
Continuance Usage Intention<---Technology Satisfaction	0.070	0.135	0.498	0.619

**p<.05, ** p<.01, *** p<.001*

This study hypothesized H1 that the presence of generative AI art content would positively affect perceived usefulness and perceived ease of use. The analysis indicated a significant relationship between presence and perceived usefulness ($\beta = 0.638$, $p < .001$), and between presence and perceived ease of use ($\beta = 0.544$, $p < .001$). Therefore, H1 is accepted. H2 posited that immersion of generative AI art content would positively affect perceived usefulness and perceived ease of use. The results supported this hypothesis, showing significant impacts of immersion on perceived usefulness ($\beta = 0.250$, $p < .001$), and on perceived ease of use ($\beta = 0.289$, $p < .001$). Thus, H2 is accepted. H3 examined the influence of perceived usefulness on recipients' content satisfaction and technology satisfaction. However, the findings indicated no significant effect; specifically, the results were ($\beta = 0.010$, $p > .05$) for content satisfaction and ($\beta = 0.043$, $p > .05$) for technology satisfaction. H3 is rejected. H4 suggested that perceived ease of use would positively affect both content satisfaction and technology satisfaction. The analysis demonstrated significant relationships for content satisfaction ($\beta = 0.938$, $p < .001$) and for technology satisfaction ($\beta = 0.975$, $p < .001$), and therefore H4 is accepted. However, these coefficients are notably high, which may indicate that perceived ease of use exerts a particularly strong influence on satisfaction outcomes or that there is potential conceptual or measurement overlap between these constructs. Finally, H5 proposed that users' content satisfaction and technology satisfaction would positively affect their continuance usage intention. The results revealed a significant effect for content satisfaction ($\beta = 0.798$, $p < .001$), while the relationship between technology satisfaction and continuance usage intention was not statistically significant ($\beta = 0.070$, $p > .05$). H5 is partially accepted.

4.5 Multidimensional Scale Analysis

Multidimensional scaling (MDS) refers to a suite of statistical techniques employed to analyze numerical data concerning the objective or subjective relationships among multiple objects, visualizing these relationships within a multidimensional space [50]. Multidimensional scaling analysis makes it easy to understand the overall relationship structure that cannot be understood from numerical data alone through spatial illustrations. It is a statistical tool that allows us to measure and understand the relationship between objects when there is a lack of understanding of the relationship between dimensions in research [51]. It is a way to show preferences for measured objects in space, and the relationship between measured objects is represented through the distance between points in a multidimensional space, and the closer the objects are to each other, the more similar they are interpreted as a group.

In this study, ALSCAL(M) in SPSS 26.0 was used to conduct the multidimensional scale analysis. The characteristics of generative AI art content, trustworthiness, risk, and necessity, were measured by three questions: "Is the AI-generated novel/painting/music trustworthy?", "Is the AI-generated novel/painting/music risk?", and "Is the AI-generated novel/painting/music necessary?". The results of the analysis are presented in Figure 3.

Through multidimensional scaling analysis, generative AI content can be categorized into four similar groups: "high-trust, high-risk AI-generated content," "low-trust, high-risk AI-generated content," "high-trust, necessary AI-generated content," and "low-trust, necessary AI-generated content." The three genres of AI-generated content can be classified into these four groups. For example, AI-generated novels are perceived as high-risk and not trusted by consumers. While AI has made significant advances in text generation, the generated content generally lacks real emotions and human authenticity, with creativity and originality limited, making it difficult to rival

novels written by human authors. Additionally, logical errors, grammatical issues, and other problems may be present in the text, reducing reader trust in the content. On the other hand, AI-generated music is not perceived as high-risk and is generally trusted and considered necessary by consumers. In the field of music creation, consumers tend to focus more on the quality and expressiveness of the music itself and are relatively less concerned about the creator's identity or background. Thus, if AI-generated music meets these demands, it is more readily accepted. Additionally, the creation of music does not require the same level of logic and grammatical accuracy as novels, and emotions can be expressed through elements such as tone, melody, and rhythm, allowing for empathy with consumers. Finally, AI-generated painting is perceived as the most trusted and necessary but is still considered risky. As a form of visual art, AI-generated content is more easily accepted by consumers if the visual effects are appealing. However, there remains a lack of originality and creativity, and risks related to intellectual property infringement, moral, and ethical issues are still present.

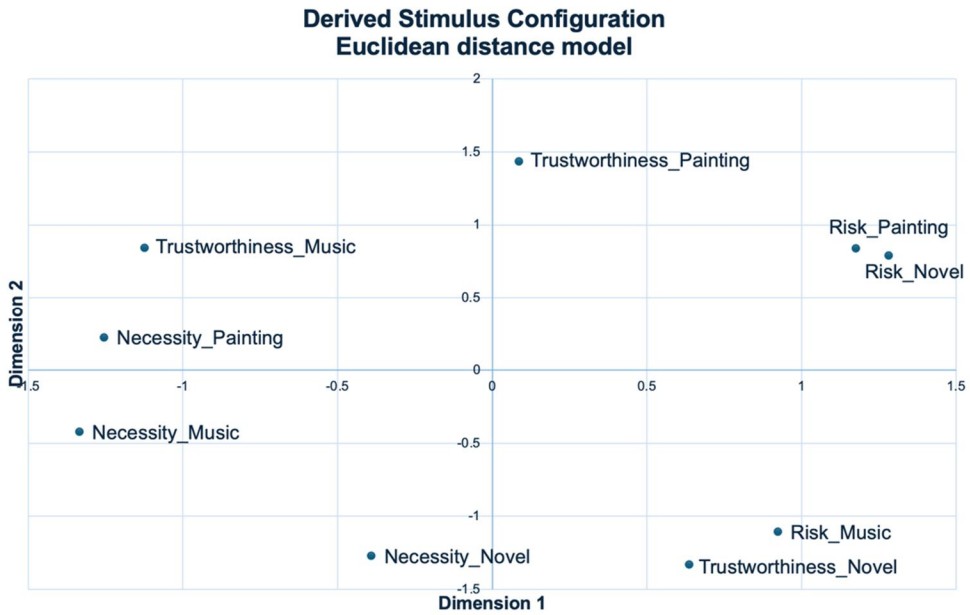

Figure 3. Multidimensional Scale Analysis of (a) Novel, Painting, and Music in the Genre Dimension and (b) Trustworthiness, Risk, and Necessity in the Usage Dimension.

5. Discussion and Implications

This study examined how the presence and immersion of generative AI art content shape users' perceptions of usefulness and ease of use, and further analyzed how these perceptions influence content satisfaction, technology satisfaction, and continuance usage intention. The results show that users can develop perceptions of usefulness and ease of use when engaging with generative AI. In particular, the attribute of ease of use significantly enhances satisfaction with the generated content, which in turn fosters users' intention to continue using these technologies. These findings are consistent with previous research and also indicate that enhancing presence, immersion, and ease of use is crucial for improving user acceptance in the design and development of generative AI art models and platforms.

However, some findings require further discussion. First, the measurement of perceived ease of use exhibited relatively low values in the validity test, indicating that its convergent validity may be insufficient. This limitation should be considered when interpreting the results, as it may affect the strength and significance of the observed relationships. Future research may benefit from refining or expanding the measurement items of perceived ease of use to improve its psychometric properties. Moreover, the path coefficients between perceived ease of use and the two satisfaction constructs were extremely high. This suggests that ease of use may have a particularly strong explanatory influence on satisfaction outcomes, or that some degree of conceptual or measurement overlap may exist between these constructs. When users find AI art tools intuitive or easy to operate, they are likely to experience greater satisfaction with both the content and the technology itself, regardless of other factors. Future research could consider introducing additional mediating variables or modifying the measurement design to better capture the underlying mechanisms linking ease of use and satisfaction.

One of the more interesting findings of this study is that perceived usefulness did not significantly affect content satisfaction or technology satisfaction, which differs from the traditional predictions of TAM, where usefulness is typically considered a primary driver of user satisfaction and acceptance [12], [21]. However, this study found that such an effect did not emerge in the context of generative AI art. This may be associated with users' biases toward AI and their technophobia [52, 53]. As previous research [13] has suggested, as generative AI has acquired capabilities such as calculation, analysis, reasoning, cognition, art, and creativity that were once regarded as unique to humans, users may experience ambivalence, concern, and even fear toward AI. They may worry that AI will completely replace humans and that genuine human art will disappear. Additionally, some scholars [5] have pointed out that powerful and "useful" AI may bring risks such as copyright infringement or the generation of harmful artistic content. These concerns and anxieties may weaken the positive effect of perceived usefulness on satisfaction, as users perceive the advanced capabilities of AI as a potential threat rather than a straightforward advantage.

The partial support for H5 further validates this complexity of these dynamics. The results show that content satisfaction significantly predicts continuance usage intention, whereas technology satisfaction does not. This suggests that continued engagement depends more on the value and emotional resonance users derive from the content itself than on their evaluation of the technology. Even when users feel skeptical or uneasy about AI systems, they may still choose to continue using AI-generated art if the content provides unique aesthetic experiences or emotional meaning.

This phenomenon reveals potential directions for future research. The authenticity of artworks, the identity of the author, and the recognition of creative subjectivity may play crucial roles in shaping users' attitudes and behavioral responses towards AI art [53]. As generative AI continues to break through traditional boundaries of creation, it not only challenges conventional definitions of "creativity" and "authorship" but also triggers ongoing debates about the essence of art and the role of human creation. These cultural and identity-related dimensions may affect the explanatory power of purely functional evaluations in predicting satisfaction and behavioral intention, thereby offering important avenues for future theoretical development.

This study also offers several theoretical and practical implications. From a theoretical perspective, this study extends the TAM framework into the field of generative AI art and empirically verifies its applicability. At the same time, it points out the limitations in the relationships between positive variables and continuance usage behavior. Future research could incorporate negative variables such as user resistance or technology anxiety [54] to provide a more comprehensive understanding of how individuals balance enthusiasm and concern when adopting AI-generated content. From a practical perspective, developers and designers of AI art platforms should not only focus on improving functional features but also strive to reduce users' sense of threat and enhance their autonomy. By building transparent and explainable systems, emphasizing human-AI collaboration, and positioning AI as a tool that supports rather than replaces human creativity, user acceptance of AI art can be effectively enhanced. For policymakers and cultural institutions, promoting public understanding of AI's role in creative production and addressing ethical and authorship-related issues are essential for ensuring that technological innovation remains aligned with cultural values and societal expectations.

6. Conclusion

This study provides one of the early empirical investigations into how users perceive and engage with generative AI in the domains of art creation and consumption. By analyzing the influence mechanisms of presence, immersion, perceived usefulness and perceived ease of use on satisfaction and continuance intention, this study reveals the effect of emerging technologies in shaping user experiences and behaviors. The results demonstrate that ease of use and content satisfaction are key factors driving users' continuous engagement, while the limited influence of perceived usefulness highlights deeper psychological and cultural factors such as technophobia and identity-related concerns.

Overall, this study identifies the amorphous forms of artistry and creativity in AI-generated art, as well as the consumption and satisfaction derived from it. Structural equation modeling was employed to analyze the measurement of AI-generated art content, and a multidimensional model for its application was proposed. This study is particularly significant as it offers foundational research for understanding the sociocultural dimensions of AI-generated art. It is hoped that this work will advance the development of consumer research in the field of AI-generated art and inspire future empirical studies.

Conflicts of Interest: The authors declare no conflict of interest.

References

[1] M. Gao, "Study on the Influence of Artificial Intelligence on Art Ecology," M.S. thesis, Shenzhen Univ., China, 2020, doi: http://dx.doi.org/10.27321/d.cnki.gszdu.2020.000470.

[2] S. Han, "Current Trend and Direction of Deep Learning Method to Railroad Defect Detection and Inspection," International Journal of Internet, Broadcasting and Communication, vol. 14, no. 3, pp. 149-154, 2022, doi: http://dx.doi.org/10.7236/IJIBC.2022.14.3.149.

[3] D. H. Lee, "A Study on the Application of AI Image Generators in the Creative and Art Field," Proceedings of the Korean Society of Computer Information Conference, vol. 31, no. 1, pp. 85-88, 2023. [Online] Available: https://koreascience.kr/article/CFKO202319254418362.page

[4] E. J. Hong, Beyond ChatGPT, the future of generative AI, Samsung SDS, 2023. [Online] Available: https://www.samsungsds.com/kr/insights/future_of_generative_ai_1.html

[5] J. Bang and B. C. Cho, "Policy Proposals in Response to Changes in the Authoring and Distribution Environment of Contents by Generative Artificial Intelligence," Journal of Broadcast Engineering, vol. 28, no. 4, pp. 400-409, 2023, doi: http://dx.doi.org/10.5909/JBE.2023.28.4.400.

[6] H. J. Yoo, Art in the Age of Artificial Intelligence: Nine themes about art in the era of AI. B (Book Publisher B), 2019.

[7] K. H. Kim and H. G. Kim, "A case study of ChatGPT and Midjourney -Exploring the possibility of use for art and creation using AI-," The Treatise on The Plastic Media, vol. 26, no. 2, pp. 1-10, 2023, doi: http://dx.doi.org/10.35280/KOTPM.2023.26.2.1.

[8] G. Iglesias, E. Talavera, and A. Díaz-Álvarez, "A survey on GANs for computer vision: Recent research, analysis and taxonomy," Computer Science Review, vol. 48, p. 100553, 2023, doi: http://dx.doi.org/10.1016/j.cosrev.2023.100553.

[9] J. Chung, "Case study of AI art generator using artificial intelligence," Trans-, vol. 13, pp. 117-140, 2022, doi: http://dx.doi.org/10.23086/trans.2022.13.06.

[10] Q. Jiang and J. Chung, "A Case Study of Creative Art Based on AI Generation Technology," International Journal of Advanced Smart Convergence, vol. 12, no. 2, pp. 84-89, 2023, doi: http://dx.doi.org/10.7236/IJASC.2023.12.2.84.

[11] Q. Chen and Y. Xu, "Several Prerequisites for the Research on Textual Algorithms," Chinese Journal of Art Studies, vol. 2, pp. 73-82, 2022.

[12] J. H. Seok and D. Y. Ju, "An Analysis of the Perception on AI-Generated Painting and Exploration the Directions of AI Generator," Proceedings of the HCI Society of Korea Conference, pp. 253-258, 2023. [Online] Available: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE11229658

[13] Z. Epstein, A. Hertzmann, L. Herman, R. Mahari, M. R. Frank, M. Groh, and O. Russakovsky, "Art and the science of generative AI: A deeper dive," arXiv preprint, doi: https://doi.org/10.48550/arXiv.2306.04141.

[14] Y. Han and S. H. Lee, "Factors Affecting the Intention of Continuous Use of AI Speakers: Focusing on Media Efficacy and Social Presence," Korean Management Consulting Review, vol. 19, no. 3, pp. 83-95, Sep. 2019. [Online] Available: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE10700783

[15] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," MIS Quarterly, vol. 13, no. 3, pp. 319-340, Sep. 1989, doi: http://dx.doi.org/10.2307/249008.

[16] B. H. Choi, "Study on Smart Seniors Virtual Reality-based Realistic Content User Experience and Acceptance Intention: Focusing on the Extended Technology Acceptance Model," Journal of the Moving Image Technology Association of Korea, vol. 37, no. 1, pp. 201-229, Jan. 2021, doi: http://dx.doi.org/10.34269/mitak.2021.1.37.011.

[17] J. Y. Yoo and C. Park, "A Comprehensive Review of Technology Acceptance Model Researches," Entrue Journal of Information Technology, vol. 9, no. 2, pp. 31-50, Dec. 2010. [Online] Available: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE10948061

[18] B. S. Kim and H. J. Woo, "A Study on the Intention to Use AI Speakers: Focusing on the Extended Technology Acceptance Model," The Journal of the Korea Contents Association, vol. 19, no. 9, pp. 1-10, Sep. 2019, doi: http://dx.doi.org/10.5392/JKCA.2019.19.09.001.

[19] V. Venkatesh and F. D. Davis, "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies," Management Science, vol. 46, no. 2, pp. 186-204, Feb. 2000, doi: http://dx.doi.org/10.1287/mnsc.46.2.186.11926.

[20] L. Y. Ma and S. H. Kweon, "The Effects of Personalized Service of YouTube on User's Continuous Use Intention: Based on Modified Technology Acceptance Model," Korean Journal of Communication & Information, vol. 99, pp. 65-95, Feb. 2020, doi: http://dx.doi.org/10.46407/kjci.2020.02.99.65.

[21] D. E. Han, D. H. Choi, and C. H. Oh, "A Study on User Experience through Analysis of the Creative Process of Using Image Generative AI: Focusing on User Agency in Creativity," The Journal of the Convergence on Culture Technology (JCCT), vol. 9, no. 4, pp. 667-679, Apr. 2023, doi: http://dx.doi.org/10.17703/JCCT.2023.9.4.667.

[22] D. H. Choi, J. Y. Kim, D. E. Han, and C. H. Oh, "Understanding User Perception of Generative AI and Copyright of AI-Generated Outputs: Focusing on Differences by User Group," The Journal of the Convergence on Culture Technology (JCCT), vol. 9, no. 1, pp. 777-786, Jan. 2023, doi: http://dx.doi.org/10.17703/JCCT.2023.9.1.777.

[23] Y. I. Kim, I. H. Seo, and H. C. Kim, "A Study on Developing Realistic Experience Service about Art Works Using CNN," The Journal of Convergence Knowledge Transactions, vol. 9, no. 4, pp. 111-121, Apr. 2021, doi: http://dx.doi.org/10.22716/sckt.2021.9.4.048.

[24] Y. G. Cho, "A Study on the Quality Factors Affecting Intention to Use of Financial Chatbot," M.S. thesis, Soongsil University, Seoul, Korea, 2019.

[25] R. Soret, A. M. Montes-Solano, C. Manzini, V. Peysakhovich, and E. F. Fabre, "Pushing open the door to reality: On facilitating the transitions from virtual to real environments," Applied Ergonomics, vol. 97, p. 103535, Feb. 2021, doi: http://dx.doi.org/10.1016/j.apergo.2021.103535.

[26] F. Biocca, C. Harms, and J. K. Burgoon, "Toward a more robust theory and measure of social presence: Review and suggested criteria," Presence: Teleoperators & Virtual Environments, vol. 12, no. 5, pp. 456-480, Oct. 2003, doi: http://dx.doi.org/10.1162/105474603322761270.

[27] J. Y. Na and M. Y. Wui, "A study on the intention of using VR games: Focusing on technology acceptance model (TAM)," Journal of Korea Game Society, vol. 19, no. 3, pp. 53-64, Jun. 2019, doi: https://dx.doi.org/10.7583/JKGS.2019.19.3.53.

[28] J. H. Suh and J. S. Lee, "Consumer Acceptance of Digital Live Technology," Journal of Arts Management and Policy, vol. 35, no. 1, pp. 33-59, 2015. [Online] Available: https://scholar.kyobobook.co.kr/article/detail/4010026155910

[29] J. Joo, "Exploring structural relationships on continuous use of generative AI: Focusing on flow, perceived usefulness, satisfaction, and intention to continue use," Korean Journal of Convergence Science, vol. 13, no. 3, pp. 181-202, Jan. 2024, doi: http://dx.doi.org/10.24826/kscs.13.3.10.

[30] D. L. Hoffman and T. P. Novak, "Flow online: lessons learned and future prospects," Journal of Interactive Marketing, vol. 23, no. 1, pp. 23-34, Jan. 2009, doi: http://dx.doi.org/10.1016/j.intmar.2008.10.003.

[31] S. B. Jung, D. Y. Won, and Y. M. Chung, "A study on the intention to use of flow experience in mobile sports news: Applying the Technology Acceptance Model (TAM) and Theory of Reasoned Action (TRA)," Korean Journal of Sport Management Academic Journal, vol. 20, no. 6, pp. 35-53, Dec. 2015. [Online] Available: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07197892

[32] R. L. Oliver, "A cognitive model of the antecedents and consequences of satisfaction decisions," Journal of Marketing Research, vol. 17, no. 4, pp. 460-469, Nov. 1980, doi: https://dx.doi.org/10.2307/3150499.

[33] C. Peters, C. H. Amato, and C. R. Hollenbeck, "An exploratory investigation of consumers' perceptions of wireless advertising," Journal of Advertising, vol. 36, no. 4, pp. 129-145, Dec. 2007, doi: https://dx.doi.org/10.2753/JOA0091-3367360410.

[34] M. S. A. Bakar, J. Bolong, R. Bidin, and B. Mailin, "Factors of gratification contributing in continuance intention to watch movies on YouTube," Procedia-Social and Behavioral Sciences, vol. 155, pp. 9-13, Nov. 2014, doi: http://dx.doi.org/10.1016/j.sbspro.2014.10.255.

[35] T. F. Stafford, M. R. Stafford, and L. L. Schkade, "Determining uses and gratifications for the Internet," Decision Sciences, vol. 35, no. 2, pp. 259-288, May. 2004, doi: http://dx.doi.org/10.1111/j.00117315.2004.02524.x.

[36] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: Toward a unified view," MIS Quarterly, vol. 27, no. 3, pp. 425-478, Sep. 2003, doi: http://dx.doi.org/10.2307/30036540.

[37] K. J. Woo and M. J. Lee, "Study on Their Perceived Personalization, Usefulness, Flow, Internet Service Encounter Satisfaction of Online Travel Company Web Site," Korean Corporation Management Review, vol. 17, no. 2, pp. 255-275, 2010. [Online] Available: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE12304716

[38] H. S. Lee, H. Jin, and H. Hwang, "A Study on Factors Influencing User's Satisfaction of OTT Service," Journal of Internet Computing and Services, vol. 18, no. 6, pp. 93-100, Dec. 2017, doi: http://dx.doi.org/10.7472/jksii.2017.18.6.93.

[39] D. Cho and Y. Lee, "Factors that Affect User Satisfaction toward Continuous Usage of AI Speakers - Focusing on The Mediation Effect of Emotional Attachment -," Journal of Korea Design Forum, vol. 24, no. 2, pp. 87-100, May. 2019, doi: http://dx.doi.org/10.21326/ksdt.2019.24.2.008.

[40] D. Shin and S. Kim, "An Expectation-Confirmation Approach to the Users' Continued Use of Smart Phone," Korean Journal of Journalism and Communication Studies, vol. 56, no. 2, pp. 331-356, 2012, [Online] Available: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE01836761

[41] D. J. Kim and J. S. Kim, "A Study on the Strategies for Improving User Satisfaction and Continuous Usage of Social Network Service," Information Systems Review, vol. 17, no. 1, pp. 171-197, 2015, doi: http://dx.doi.org/10.14329/isr.2015.17.1.171.

[42] J. Sa, H. S. Lee, and D. S. Han, "Understanding the Factors Influencing the Continuance Intention to Use among Paid OTT Service's User: Focusing on YouTube Premium Service," Korean Journal of Broadcasting and Telecommunication Studies, vol. 36, no. 5, pp. 122-155, 2022, doi: http://dx.doi.org/10.22876/kab.2022.36.5.004.

[43] B. G. Witmer and M. J. Singer, "Measuring presence in virtual environments: A presence questionnaire," Presence: Teleoperators and Virtual Environments, vol. 7, no. 3, pp. 225-240, 1998, doi: http://dx.doi.org/10.1162/105474698565686.

[44] C. Jennett, A. L. Cox, P. Cairns, S. Dhoparee, A. Epps, T. Tijs, and A. Walton, "Measuring and defining the experience of immersion in games," International Journal of Human-Computer Studies, vol. 66, no. 9, pp. 641-661, 2008, doi: http://dx.doi.org/10.1016/j.ijhcs.2008.04.004.

[45] R. L. Oliver, "Cognitive, affective, and attribute bases of the satisfaction response," Journal of Consumer Research, vol. 20, no. 3, pp. 418-430, 1993, doi: http://dx.doi.org/10.1086/209358.

[46] B. H. Wixom and P. A. Todd, "A theoretical integration of user satisfaction and technology acceptance," Information Systems Research, vol. 16, no. 1, pp. 85-102, 2005, doi: http://dx.doi.org/10.1287/isre.1050.0042.

[47] A. Bhattacherjee, "Understanding information systems continuance: An expectation-confirmation model," MIS Quarterly, vol. 25, no. 3, pp. 351-370, 2001, doi: http://dx.doi.org/10.2307/3250921.

[48] J. F. Hair, R. E. Anderson, R. L. Tatham, and W. C. Black, Multivariate Data Analysis, 5th ed. Upper Saddle River, NJ, USA: Prentice Hall, 1998.

[49] L. T. Hu and P. M. Bentler, "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives," Structural Equation Modeling: A Multidisciplinary Journal, vol. 6, no. 1, pp. 1-55, 1999, doi: http://dx.doi.org/10.1080/10705519909540118.

[50] B. J. Kim, "Analysis of trends in character education research through a systematic review of the literature: Focusing on network text analysis and multidimensional scaling," Journal of Moral & Ethics Education, vol. 59, pp. 185-213, 2018, doi: http://dx.doi.org/10.18338/kojmee.2018..59.185.

[51] S. S. Schiffman, M. L. Reynolds, F. W. Young, J. D. Carroll, and J. B. Kruskal, Introduction to Multidimensional Scaling: Theory, Methods, and Applications, New York, NY, USA: Academic Press, 1981.

[52] C. Oh, T. Lee, Y. Kim, S. Park, S. Kwon, and B. Suh, "Us vs. them: Understanding artificial intelligence technophobia over the Google DeepMind challenge match," in Proc. 2017 CHI Conf. Human Factors in Computing Systems, pp. 2523-2534, May. 2017, doi: https://dx.doi.org/10.1145/3025453.3025539.

[53] M. Ragot, N. Martin, and S. Cojean, "AI-generated vs. human artworks: A perception bias towards artificial intelligence?," in Extended Abstracts of the 2020 CHI Conf. Human Factors in Computing Systems, pp. 1-10, Apr. 2020, doi: https://dx.doi.org/10.1145/3334480.3382892.

[54] A. Donmez-Turan, "Does unified theory of acceptance and use of technology (UTAUT) reduce resistance and anxiety of individuals towards a new system?," Kybernetes, vol. 49, no. 5, pp. 1381-1405, 2020, doi: https://dx.doi.org/10.1108/K-08-2018-0450.