International Journal of Advanced Culture Technology Vol.12 No.3 406-418 (2024)
DOI https://doi.org/10.17703/IJACT.2024.12.3.406

IJACT 24-9-49

A study on the impact of fashion brand Metaverse platform characteristics on perceived avatar identity and user purchase intention

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Abstract

In line with the rapid spread of Metaverse in various marketing areas, fashion companies have also begun to devise various activities using the Metaverse. Fashion experiences within the Metaverse platform must be conducted considering the characteristics of the Metaverse itself. However, there has yet to be any research on Metaverse fashion based on the characteristics of the Metaverse platform itself. Accordingly, this study sought to empirically analyze the impact of various characteristics of the Metaverse platform on consumers' virtual fashion experience within the platform. In particular, this study focused on the relationships among the Metaverse platform characteristics, perceived avatar identity, and the purchase intention of actual fashion products. In order to test the hypotheses, a survey was conducted on 300 Korean male and female consumers with an average age of 39.3 who had experience with virtual fashion through the Metaverse platform. In response to the recent increase in domestic and foreign brands' attempts to experience fashion using ZEPETO, the questionnaire provided an experience scenario that included detailed captured images of the use of avatars in the ZEPETO world. Data was subjected to statistical analysis using the SPSS 28.0 program. The results confirmed that the characteristic factors of the Metaverse platform (i.e., presence, social interactivity, anonymity) had a significant impact on the user's perceived avatar identification. Additionally, perceived avatar identity significantly affected users' purchase intention. Theoretical and managerial implications and study limitations are discussed.

Keywords: *Metaverse Fashion Marketing, Avatar, Perceived Avatar Identification, Purchase Intention*

1. Introduction

Metaverse is receiving attention from many product groups due to its expected marketing influence, and leading fashion brands have also begun discussing how to create a fashion experience in the Metaverse world [1,2]. Therefore, discussing fashion on the Metaverse platform is necessary, but related research must still be executed. As the fashion world ponders the potential of fashion experiences in the rapidly expanding Metaverse, there is an urgent need for more academic research in the field of fashion.

Understanding the influence of the unique characteristics of the virtual environment, the Metaverse, on the fashion experience through avatars perceived by consumers is of utmost importance [3,4]. Particularly, an essential medium for fashion experience on the Metaverse platform is the avatar, and fashion brands have begun various marketing attempts using avatar fashion on virtual experience platforms that are easily accessible to the general public, such as ZEPETO. Fashion brands such as Gucci, Dior, Nike, and North Face are using the Metaverse platform to create virtual stores selling avatar clothing and using it for marketing. On

Manuscript received: June 20, 2024 / revised: July 29, 2024 / accepted: September 1, 2024
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the other hand, there have been cases of launching exclusive fashion brands specialized in the Metaverse. For example, domestic clothing company F&F introduced the metaverse fashion brand Supra in February 2022. Indeed, Supra's digital costumes released through the Metaverse platform are optimized to be a styling tool for young leaders who pursue flexibility even in virtual reality. Supra's costumes can also be worn in the real world [5,6]. Despite the growing interest in the industry, there is a noticeable absence of academic research in this area. An avatar, akin to one's alter ego, with the ability to project a significant self-image, triggers various psychological mechanisms. Understanding how these mechanisms are influenced by the characteristics of the metaverse platform itself is vital for creating a more engaging fashion experience. This is essential information that practitioners and scholars must be equipped with to shape a compelling Metaverse environment [7].

Accordingly, this study examines the user's perspective of virtual fashion products through the Metaverse platform, focusing on the relationships among the Metaverse platform characteristics, perceived avatar identity, and the purchase intention of actual fashion products. Furthermore, this study seeks to empirically analyze the impact of various characteristics of the Metaverse platform on consumers' virtual fashion experience within the platform. In particular, this study focuses on the relationships among the Metaverse platform characteristics, perceived avatar identity, and the purchase intention of actual fashion products. In order to test the hypotheses, a survey is conducted on Korean consumers who had experience with virtual fashion through the Metaverse platform. Furthermore, in response to the recent increase in domestic and foreign brands' attempts to experience fashion using ZEPETO, the questionnaire provides an experience scenario that included detailed captured images of the use of avatars in the ZEPETO world. Data is subjected to statistical analysis using the SPSS 28.0 program. Overall, the study's results will contribute to the current research flow on Metaverse fashion by adding some novel insight into the consumer-centric perspectives of the effect of platform characteristics on the fashion experience.

2. Theoretical Background

(1) Metaverse Characteristics

Concepts and characteristics related to the metaverse are being discussed at various levels. In this study, we sought to analyze the influence of the three main characteristics of the Metaverse platform discussed in previous research, including presence, interactivity, and anonymity, which have been most frequently discussed: First, a sense of presence has been defined as a psychological state in which one feels that one exists in a new world different from the real world while experiencing a virtual space. In general, the sense of presence is defined as a mental state in which users feel as if they exist when they become immersed while using a medium, and thus, the sense of presence is considered to be created. However, Barfield et al. [8] argued that presence and immersion do not have the same meaning, so they both argued that a distinction should be made between them. In other words, the sense of presence is accompanied by the feeling of existing in a virtual space, but immersion does not have spatial perception [9]. A sense of presence also refers to a psychological state in which the subject experiences virtual spaces, objects, and others with similar emotions to natural objects [10]. In other words, the sense of presence refers to obtaining a similar experience to the object. However, the feeling experienced differs depending on the application object (e.g., product, service) [11].

Second, social interactivity is the fixation on acting and reacting with other people, and in virtual reality, social interactivity refers to interaction between users [12]. Virtual reality combines hardware and software to achieve mutual interactivity. In hardware-centric devices, interactivity is the level at which users can utilize

content in various ways by modifying or participating in a real-time mediated environment, and hardware interactivity and sociality provided by software (e.g., conversational content, cooperative stories). This connection determines users' active participation level [13]. In other words, the development of virtual reality devices has enabled users to interact with other users through communication while performing actions in virtual reality, and the social interactivity provided by virtual reality provides new online experiences such as user interaction experiences. Therefore, it is suggested to strongly impact improving satisfaction and intention to use [12, 13].

Third, anonymity is defined as the state of not knowing one's identity among participants [14]. Anonymity is defined as acting in an accessible way when people think that others cannot recognize them [15]. Anonymity online is defined as the subjective perception of the degree to which parties participating in cyberspace can confirm each other's identities and is divided into self-anonymity, such as ID and anonymity of others, depending on the information exposed [16]. Anonymity is a concept that refers to a state or degree in which others cannot identify an individual's identity or behavior. Many opinions have been raised that the higher the degree, the more it causes deindividuation of the individual, weakens the sense of norms, and activates impulsive or deviant behavior [17]. Additionally, it has been pointed out that a high degree of anonymity reduces the reliability of information, ultimately resulting in the breakdown of relationships between people [18]. Meanwhile, the shift to a purely functional view of anonymity began in earnest from the perspective of Social Information Processing [19]. It is explained that anonymity is a space where one's thoughts and values, which are challenging to realize in the real world, can be freely expressed in a virtual space. Virtual world is also a space where one can hide behind anonymity and realize the desires of one's authentic self without hesitation [20]. In addition, the anonymity achieved through avatars in virtual space can reduce the burden on individuals to disclose their information and avoid social stigma as long as it is related to emotions, behaviors, identities, pathologies, and others negatively perceived in social aspects.

(2) Perceived Avatar Identification

Identification refers to the mechanism by which viewers become immersed in media characters and feel they are experiencing the events they experience [21]. Perceived avatar identification means feeling a psychological connection or attachment by projecting oneself to a group or specific object to which one belongs [22]. It refers to a psychological mechanism by which people become immersed in an object or follow its actions because they desire to become like the object they admire. According to the socially perceived avatar identification theory, perceived avatar identification means consumers have a strong psychological bond with a specific organization or group. In other words, the strength of a community's perceived avatar identification reflects an individual's psychological obsession with the community [23]. Social identification theory, developed in social psychology, shows how people form a sense of identification or perceived avatar identification with their group or organization and how this perceived avatar identification influences attitudes. These studies broadly discuss the causes and consequences of the perceived avatar identification phenomenon [24]. Therefore, it can be defined as an individual being psychologically connected to a specific organization, having a sense of belonging and unity, and recognizing the organization and himself as having a common destiny by sharing the organization's successes and failures.

An avatar plays a role similar to a character in an online game. An avatar is the same as a character in that it is an image of oneself chosen by the user and can be said to be a visualized ID [25]. In online games, it is not an avatar but a game character. It is claimed that the avatar in an online game is a character, and the context

of the avatar and the character is considered the same. It can be seen that the avatar or character representing the user plays a role in connecting the natural world and virtual space. Hefner et al. argue that through games, users experience identification by sympathizing with the characters' emotions or actions. The fundamental mechanism that enables such strong identification in games is empathy, which refers to the ability to understand and share the emotional state or situation of others. Empathy can be perceived in real life and virtual spaces, and it plays a vital role in forming relationships with users in virtual spaces [26]. Metaverse communicates with other users through avatars, and in the process of decorating and setting up an avatar, which is a person representing oneself in a virtual space, users experience identification with the avatar [27]. Research also found that among Metaverse platform users, those who used avatars with ideal or unrealistic images tended to engage in various activities on the Metaverse platform and had a higher level of immersion and attachment to their avatars [28]. Based on the preceding research that confirmed that the above metaverse characteristics significantly impacted the identification between users and avatars or characters in the metaverse platform and multiplayer game MMORPG space, this study examined the metaverse platform characteristic factors such as presence and interaction. The following hypothesis was established regarding the causal relationship between gender, anonymity, and perceived avatar identification.

H_1. Metaverse characteristics (a: presence, b: social interactivity, c: anonymity) will positively affect perceived avatar identification.

Studies documented that when psychological identification is vital in a multiplayer game, it positively influences the purchase intention of paid items [29]. They confirmed that avatar identification has a positive influence on on-site attitude and site loyalty and that the strength of avatar identification forms the attitude toward the site and positive emotions lead to continued visits to the site. It is said that it creates loyalty. Both personal and social identification were found to positively influence online personal community immersion [30]. Based on the above prior research that confirmed that the psychological identification that users feel with an avatar or character in the metaverse platform and MMORPG space has a significant impact on purchase intention, this study The following hypothesis was established regarding the causal relationship between avatar identification and purchase intention.

H_2. Perceived avatar identity in the metaverse platform will positively affect users' purchase intention.

Based on the assumption that perceived avatar identity is influenced by metaverse characteristics, which in turn influences purchase intention, when these two conditions are satisfied, perceived avatar identity is influenced by the characteristic factors of the metaverse platform and purchase intention. It can be assumed to act as a mediating variable between intentions. Accordingly, the following hypothesis was added.

H_3. Avatar identity perceived in the Metaverse platform will mediate the relationship between the Metaverse characteristics (a: presence, b: social interactivity, c: anonymity) and the user's purchase intention.

3. Methods

(1) Study Design and Data Collection

Prior to the experiment, this study used the innovative approach of Metaverse platform stimuli. These stimuli allowed users to experience virtual fashion products and respond to questionnaires within the Metaverse platform, effectively controlling factors that may affect users' gender, preferences, and value judgments. The

survey was conducted by recruiting only those who had experienced fashion products on a specific metaverse platform, regardless of the type. In addition, we presented various captured images of the environment within ZEPETO. On this metaverse platform, virtual fashion products can be purchased or experienced and conducted a survey in which users viewed and responded. At this time, three types of environmental images within the virtual reality metaverse platform ZEPETO were presented to the experimenter. To prevent the intervention of exogenous variables, the explanation of fashion products of specific brands was minimized, and the survey was conducted to avoid influencing value judgments.

(2) Measurements

The questions applied to this survey were selected mainly from questions that had already been used and verified in previous studies for each variable in order to analyze the relationship between key variables. The measurement items in this study were modified and designed to suit the purpose of this study based on previous research. To test the study's hypothesis, based on previous research, a survey was designed focusing on questions about the characteristic factors of the metaverse (sense of presence, social interactivity, anonymity), perceived avatar identity, and purchase intention. All questions were reorganized to fit the context of this study based on previous studies [31,32]. The items of each survey were tailored to the purpose of the study. A nominal and a Likert scale were used, with one being 'not at all' and five being 'very much.' Based on a hypothetical scenario assuming the situation of the ZEPETO platform, which has been widely used by fashion brands recently, respondents first checked various image cuts of the virtual fashion experience using avatars on ZEPETO. Then, they expressed their related reactions in the survey.

(3) Data Analysis

In this study, each question in the questionnaire was scored and analyzed statistically. Three hundred copies of the collected data were analyzed in the statistical program SPSS for Win 28.0. First, a frequency analysis was conducted to examine the survey subjects' preliminary questions, consumers' perceived characteristics of sustainable fashion luxury goods, and demographic characteristics. Next, exploratory factors were analyzed and implemented to verify the validity of the measurement tool, and Cronbach's α coefficient was used to verify reliability [33]. In addition, the mean and standard deviation were calculated to examine the characteristics of each variable, multiple regression analysis was conducted to test hypotheses, and Baron & Kenny's [34] three-stage hierarchical regression analysis was used to analyze mediating and moderating effects.

4. Results

(1) Participants' Profiles

The gender distribution of the survey subjects was 154 women (51.3%) and 146 men (48.7%). In addition, the average age distribution of those surveyed was 39.32, with 21.3% (64) in their 10s and 20s, 30.7% (92) in their 30s, 32.3% (97) in their 40s, 11.4 (34) in their 50s, and 4.3% in their 60s or older. It was (13). Regarding educational background, 79.7% (239) of all respondents responded that they had attended or graduated from university. As for occupation, 67.7% of all respondents said they were office workers. In addition, the survey subjects were all people who had experience using the Metaverse platform.

(2) Item Validity and Reliability

In this study, exploratory factor analysis and Cronbach's α were obtained to verify the validity and reliability of the measurement tool. Principal component analysis was used as a factor extraction method in exploratory factor analysis. The purpose of principal component analysis is to group many variables into as few factors as possible while minimizing information loss. The varimax rotation method was used to rotate the factors. The criteria for selecting items in this study were an eigen value of 1.0 or higher and a factor loading of 0.4 or higher. Items were removed because they did not fit the theoretical structure, and a final 36 questions were used for analysis. In addition, the KMO (Kaiser-Meyer-Olkin) value was calculated to examine the adequacy of the sample. Additionally, Bartlett's test of sphericity was used to test whether the correlation matrix between measurement items for factor analysis was a unit matrix [36]. The KMO value is considered very good if it is over 0.9, good if it is around 0.8, and acceptable if it is around 0.6 to 0.7 [35]. <Table 1> shows the result of exploratory factor analysis of Metaverse characteristics. <Table 2> shows descriptive statistics of the key variables.

Table 1. Descriptive statistics analysis and normality test

		Eigen Value	Factor Loading	Cronbach's α
Presence	The image of me (the avatar) wearing the virtual fashion product feels real.	2.442	.859	.820
	It feels like the virtual reality world metaverse (space) really existed.		.787	
	It feels like I was actually wearing a virtual fashion product.		.748	
Social Interactivity	When using the virtual reality Metaverse platform, you can easily understand the atmosphere around you.	2.283	.832	.774
	Through the virtual reality Metaverse platform, you can also exchange opinions with users about common interests.		.677	
	The platform allows users to hold effective meetings.		.641	
	In the virtual reality Metaverse platform, users recognize and recognize my value.		.621	
Anonymity	When using the virtual reality Metaverse platform, I usually prefer to remain anonymous.	1.897	.864	.694
	When I operate anonymously on the virtual reality metaverse platform, I feel more secure because my identity is not exposed.		.847	
	When I operate anonymously on the virtual reality metaverse platform, it will be easier to express my complete self.		.555	

Table 2. Descriptive statistics analysis and normality test

	Mean	S.D.	Skewness	Kurtosis
Presence	3.427	0.800	-0.783	0.512
Social Interactivity	3.650	0.614	-0.846	2.030

Anonymity	3.861	0.583	-0.797	1.529
Perceived Avatar Identification	3.549	0.667	-0.608	0.448
Purchase Intention	3.726	0.623	-0.857	1.322

(3) Hypothesis Testing

a. Impact of Metaverse Characteristics on Perceived Avatar Identification

In this study, multiple regression analysis was conducted to test the hypothesis about the impact of the metaverse platform characteristics of virtual fashion products such as presence, social interactivity, and anonymity on perceived avatar identification. The results are shown in <Table 3>. As a result of the analysis, F = 102.614 (p < .001), which indicates the statistical significance of the multiple regression model examining the effects of presence, social interactivity, and anonymity on perceived avatar identification, can be interpreted as suitable for this regression model. there is. R^2=0.510, showing an explanatory power of 51.0%, and the VIF is less than 10, so there is no problem with multicollinearity. Durbin-Watson is 2.040, which is very close to 2, so it is judged that there is no correlation between the residuals. Therefore, there is nothing wrong with the variable, and the significance level is set at 0.05 (95%).

As a result of the analysis, the presence characteristics of the virtual fashion product metaverse platform showed a significant positive influence on the user's perceived avatar identification (H1a: β=0.349, t=6.298, p<.001). Therefore, hypothesis H1a was accepted. The social interactivity characteristics of the virtual fashion product metaverse platform showed a significant positive influence on the user's perceived avatar identification (H1b: β=0.326, t=5.670, p<.001). Therefore, hypothesis H1b was accepted. Additionally, the anonymous nature of the virtual fashion product metaverse platform also showed a significant positive influence on the user's perceived avatar identification (H1c: β=0.051, t=4.155, p<.001). Therefore, hypothesis H1c, which states that the anonymity of the metaverse platform characteristics of virtual fashion products will have a positive effect on users' perceived avatar identification, was adopted. In summary, H1 was fully supported.

Table 3. Regression analysis: Metaverse Characteristics and Perceived Avatar Identification

	Perceived Avatar Identification						
Independent Variables	B	S.E.	β	t	p	adj.R^2	VIF
(constant)	.376	.205		1.830			
Presence	.291	.046	.349	6.298***	<.001	.510	1.852
Social Interactivity	.355	.063	.326	5.670***	<.001		2.000
Anonymity	.213	.051	.051	4.155***	<.001		1.215
F(p)	102.614***						
Durbin-Watson	2.040						

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

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b. Effect of Perceived Avatar Identity on Purchase Intention

To see the effect of perceived avatar identity on purchase intention in the virtual fashion product metaverse

platform, a separate regression analysis was conducted with perceived avatar identity as the independent variable and purchase intention as the dependent variable. As a result, the effect of perceived avatar identity on purchase intention was found to be significant. Social interactivity characteristics showed a significant positive influence on the user's perceived avatar identity (H2: β=0.400, t=8.074, p<.001). Therefore, H2, which states that perceived avatar identity in the metaverse platform of virtual fashion products will have a positive effect on purchase intention, was supported.

c. Mediating Effect of Perceived Avatar Identification

The three-step verification method proposed by Baron and Kenny was used to verify whether there was a mediating effect of perceived avatar identification on the impact of presence, social interactivity, and anonymity of the Metaverse platform characteristics of virtual fashion products on purchase. First, in the first-stage multiple regression analysis, the independent variable must have a statistically significant effect on the parameter, and using the second-stage multiple regression analysis, the independent variable must have a statistically significant effect on the dependent variable. In the final third step, the β value, which is the influence of the independent variables input together with the parameters using multiple regression analysis, must be significantly reduced compared to the β value shown in the multiple regression analysis in the second step. In step 3, if the β value of the independent variable decreases statistically significantly, it means that there is a partial mediation effect, and if the influence (β value) of the independent variable is not significant, it means that there is a full mediation effect. As a result of the measurement, in all mediation effect analyses, the Durbin-Watson result is close to 2 and there is no autocorrelation, so the independence condition of the residuals is satisfied. And since the variance inflation factor (VIF) is less than 10, it is determined that there is no multicollinearity between the independent variables.

First, in order to determine whether perceived avatar identification plays a mediating role in the influence of presence on purchase intention, the mediation effect was verified using the three-stage regression analysis, and the results are shown in <Table 4>. Step 1 is the result of regression analysis of the effect of presence on perceived avatar identification (parameter). It is statistically significant because the standard coefficient, that is, the beta value, is .630 and the probability of significance is .000. In the second stage, the impact of presence on purchase intention (dependent variable) was investigated through regression analysis. The result is statistically significant because the beta value is .681 and the significance probability is 0.000. In the third stage, this is the result of a regression analysis to determine whether the independent variables of presence and perceived avatar identification affect the dependent variable, purchase intention. The effect of Presence on purchase intention (dependent variable) was statistically significant with a beta value of .428 and a probability of significance of .000. Perceived avatar identification also showed a statistically significant effect on purchase intention with a beta value of .400 and a probability of significance of .000. Therefore, it is statistically significant. In other words, since the β value of the independent variable in step 3 decreases statistically significantly compared to step 2, perceived avatar identification between presence and purchase intention has a partial mediating effect. Therefore, hypothesis H3a was supported.

Table 4. Testing Mediation of Perceived Avatar Identification Between Presence and Purchase Intention

Steps	Variable	β	t	p	VIF	adj. R^2	F
I (IV→ME)	Presence →Perceived Avatar Identification	.630	14.017	.000	1.000	.395	196.484
II (IV→DV)	Presence →Purchase Intention	.681	16.036	.000	1.000	.461	257.154

III (IV/ME→DV)	Presence →Purchase Intention	.428	8.635	.000	1.659	.557	188.868
	Perceived Avatar Identification →Purchase Intention	.400	8.074	.000	1.659		

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

In order to determine whether perceived avatar identification plays a mediating role in social interactivity influencing purchase intention, the mediating effect was verified using the three-stage regression analysis, and the results are shown in <Table 5>. Step 1 is the result of regression analysis of the impact of social interactivity on Perceived Avatar Identification (parameter). It is statistically significant because the standard coefficient, that is, the beta value, is .640 and the probability of significance is .000. In the second stage, the impact of social interactivity on purchase intention (dependent variable) was investigated through regression analysis. The result is statistically significant because the beta value is .698 and the significance probability is 0.000. In the third stage, this is the result of a regression analysis to determine whether the independent variables of social interactivity and perceived avatar identification affect the dependent variable, purchase intention. The impact of social interactivity on purchase intention (dependent variable) was statistically significant with a beta value of .455 and a significance probability of .000, and perceived avatar identification also had a beta value of .379 with a significance probability of .379 on purchase intention. Since it is 0.000, it is statistically significant. In other words, the β value of the independent variable in step 3 decreased statistically significantly compared to step 2, so perceived avatar identification between social interactivity and purchase intention had a partial mediating effect. Therefore, hypothesis H3b was supported.

Table 5. Testing Mediation of Perceived Avatar Identification Between Social interactivity and Purchase Intention

Steps	Variable	β	t	p	VIF	adj. R^2	F
I (IV→ME)	Social interactivity →Perceived Avatar Identification	.640	14.366	.000	1.000	.395	206.380
II (IV→DV)	Social interactivity →Purchase Intention	.698	16.819	.000	1.000	.461	282.878
III (IV/ME→DV)	Social interactivity →Purchase Intention	.455	9.219	.000	1.693	.557	198.347
	Perceived Avatar Identification →Purchase Intention	.379	7.673	.000	1.693		

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

Lastly, in order to determine whether perceived avatar identification plays a mediating role in the influence of anonymity on purchase intention, the mediation effect was verified using Baron & Kenny's three-stage regression analysis, and the results are shown in <Table 6>. Step 1 is the result of regression analysis of the effect of anonymity on perceived avatar identification. It is statistically significant because the standard coefficient, that is, the beta value, is .438 and the probability of significance is .000. In the second stage, the effect of anonymity on purchase intention (dependent variable) was examined through regression analysis. The result is statistically significant because the beta value is .388 and the probability of significance is p<.05. In the third stage, this is the result of a regression analysis to determine whether the independent variables of

anonymity and perceived avatar identification affect the dependent variable, purchase intention. The effect of anonymity on purchase intention (dependent variable) was statistically significant with a beta value of .118 and a significance probability of .000, and perceived avatar identification also had a beta value of .619 with a significance probability of .619 on purchase intention. Since it is 0.000, it is statistically significant. In other words, since the β value of the independent variable in step 3 decreases statistically significantly compared to step 2, Perceived Avatar Identification has a partial mediating effect between anonymity and purchase intention. As a result, H3c was supported. Overall, H3 was fully supported.

Table 6. Testing Mediation of Perceived Avatar Identification Between Anonymity and Purchase Intention

Steps	Variable	β	t	p	VIF	adj. R^2	F
I (IV→ME)	Anonymity →Perceived Avatar Identification	.436	8.363	.000	1.000	.187	69.947
II (IV→DV)	Anonymity →Purchase Intention	.388	7.267	.000	1.000	.148	52.811
III (IV/ME→DV)	Anonymity →Purchase Intention	.118	2.496	.013	1.235	.457	126.828
	Perceived Avatar Identification →Purchase Intention	.619	13.068	.000	1.235		

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

5. Discussion

In this study, based on previous research, we analyzed the characteristics and types of Metaverse and the current status of the fashion industry on the Metaverse platform. We classified the characteristics of the Metaverse platform into Presence, social interactivity, and anonymity. Additionally, we empirically analyzed the impact of Metaverse platform characteristics and perceived avatar identification of Metaverse platform users on purchase intention. The empirical results, along with the hypotheses of this study, are as follows. First, as a result of examining whether the Metaverse platform characteristics of presence, social interactivity, and anonymity affect the user's perceived avatar identification, all of the Metaverse platform characteristic factors significantly influence the user's perceived avatar identification. This supports the prior research who argued that the characteristics of the perceived experience within the fashion brand Metaverse virtual reality store have a significant impact on perceived avatar identification. It can be seen that users were more immersed in the virtual reality metaverse platform by projecting their ego onto the avatar. Second, as a result of examining whether perceived avatar identification on the Metaverse platform affects users' purchase intention, it was found that all Metaverse platform characteristic factors significantly positively influenced users' purchase intention. This supports the results of previous research that argued that the more one feels identification with an avatar, the higher one evaluates the attributes of a virtual fashion product and significantly impacts virtual product purchase intention.

Our research makes a unique contribution to the existing body of knowledge. We empirically confirmed that users' presence, social interactivity, and anonymity for virtual fashion products on the Metaverse platform can have a positive effect on their perception of the value of virtual fashion products. This study is significant

in that it specifically verified how these factors affect users' value perception by experiencing virtual fashion products on the Metaverse platform, a perspective not extensively covered in previous research. Our study has significant practical implications. First, the survey was conducted with users who had access to virtual fashion products through the newly emerged Metaverse platform, with all age groups evenly distributed. This high reliability of the research results is due to the study being conducted only with subjects who actually used and experienced virtual fashion products through the Metaverse platform, aligning with the research topic on users' purchase intention for virtual fashion products on the Metaverse platform. The survey responses from all age groups are considered significant as they allow us to understand the perception and intention of virtual fashion products from the perspective of users of various generations. Additionally, the study's significance is enhanced by selecting ZEPETO as a stimulus for the Metaverse platform, thereby increasing the reliability of the study's results. This provides an important reference for analyzing the current status of the Metaverse platform used to experience and consume virtual fashion products.

Meanwhile, efforts were made to minimize bias in the data collected from the online survey in this study by ensuring anonymity during the data collection process. However, appropriate caution should be exercised in the results as they may have been written by respondents influenced by social desire bias. It should be interpreted with caution. In addition, in this study, the survey was conducted from teenagers to those in their 70s, but it is disappointing that the total proportion of people in their 20s, 30s, and 40s was 84.0%. Research should be conducted to increase the proportion of people in their teens and 20s who are currently the primary users of the Metaverse platform so that user perceptions of virtual fashion products in the current era can be well reflected. Lastly, there is a need to expand the validity of this study's results through follow-up research by including teenagers, the main user age group of ZEPETO.

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