Digitalization and Management Innovation II
R.J. Dwyer (Ed.)

doi:10.3233/FAIA230722

A Study of the Impact of Metaverse Marketing Characteristics on Consumers' Purchase Intention

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Abstract: This study explores the impact of metaverse marketing characteristics on purchase intention from a consumer perspective, aiming to reveal the mechanism of metaverse marketing from the perspective of mediation of flow experience. The study adopts the S-O-R model (stimulus-organism-response model) and the flow experience theory as the theoretical basis. By collecting data through a questionnaire survey among middle-aged and young people, and conducting empirical analysis using SPSS software, this study explores the impact of metaverse marketing characteristics on purchase intention and the mediating role of flow experience. A total of 119 valid questionnaires were collected, with a sample type of young and middle-aged people aged 18 to 35. Research has found that metaverse marketing has the characteristics of perception, interactivity, and interest, which positively affect consumers' purchase intention; The flow experience plays a mediating role between the marketing characteristics of the metaverse and consumer purchase intention. The research on metaverse marketing enriches the relevant theories of the metaverse and provides specific guidance for enterprises to carry out metaverse marketing activities.

Keywords: Metaverse marketing, purchase intention, flow experience, SPSS

1. Introduction

In 2021, Facebook changed its name to "Meta," the metaverse concept went from the rise to a hot topic. Relying on artificial intelligence, blockchain, Internet of Things, cloud computing, and other high technologies, creating a parallel virtual world that runs independently and continuously, sharing is the core issue of the concept of Meta Universe. With the development of technology, people's lives have changed dramatically with the popularity of the Internet, which has also brought disruptive changes to people's shopping lives. The rapid development of domestic e-commerce platforms such as Alibaba and Jingdong has made online shopping necessary for daily consumption. While every industry has its development cycle, so does e-commerce. After rapid development, the e-commerce industry is becoming increasingly mature and slowing down its growth rate. According to the National Bureau of Statistics, data show 2021 annual total retail sales of social consumer goods are 440,823 billion yuan, an increase of 12.5% over the previous year. Among them, the annual online retail sales of physical goods are 108.42

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Fund Projects: R&D Program of Beijing Municipal Education Commission(SM202310037007)

billion yuan, 12.0% higher than the previous year by comparable caliber, accounting for 24.5% of the total retail sales of social consumer goods. In 2020, the annual online retail sales of physical goods amounted to 975.9 billion yuan, an increase of 14.8% over the previous year by comparable caliber, accounting for 24.9% of the total retail sales of consumer goods, an increase of 4.0 percentage points over the previous year. Two thousand nineteen annual online retail sales of physical goods amounted to 8,523.9 billion yuan, an increase of 19.5% over the previous year by comparable caliber, accounting for 20.7% of the total retail sales of consumer goods. Of 20.7%, an increase of 2.3 percentage points over the previous year.

The e-commerce industry is rising gradually and slowly. For the e-commerce industry, since the market is close to maturity, there are more effective ways to stimulate growth by expanding the scale of users. Digging deeper into the value of individual users, increasing the unit price, or increasing the frequency of customer consumption will become another growth point, and the source of this growth driver is experiential consumption. The metaverse marketing feature is that it can bring an immersive consumer experience to users. Among many potential application areas, some brands initially constructed metaverse marketing through content production, market layout, user experience, marketing realizations, and other aspects, applying digital technology, emphasizing consumer sensory experience, and setting up a personified brand virtual image. Does metaverse marketing bring emotional and experience value to consumers regarding communication and interaction? Does it bring value-added, expansion, or innovation to enterprises by reshaping their marketing model?

The theoretical basis of this paper is the S-O-R theory, and the research is about the influence of metaverse marketing characteristics on consumers' purchase intention and how the flow experience plays a role in this influence. From the theoretical point of view, there still needs to be more research on the metaverse in China. This paper is an in-depth study of the relationship between metaverse characteristics and consumers' purchase intentions. It is of some theoretical value as it can add a new theoretical foundation for future research. From the practical point of view, many industries have explored the metaverse and combined it with marketing, breaking through the past marketing dilemma of enterprises, such as the fire of the digital person "Liu Ye Xi," the digital collection " The Terra Cotta Warriors of the Qin Dynasty" topped the MoDot APP after it was launched. These emerging concepts and interactive methods enhance the stickiness between the public and the brand and influence consumers' willingness to buy products from enterprises. In the transaction segment, a cooperation agreement with ICBC is also signed to carry out a closed trial of digital RMB jointly. The company relies on the existing advantages of the brand marketing business and keeps exploring new models of integration of metaverse and marketing, which is worth watching for future development. However, most companies still cannot fully grasp the metaverse technology yet, resulting in the inability to apply the metaverse marketing model.

In summary, based on the S-O-R theoretical model, this article attempts to explore the impact of metaverse marketing characteristics on consumer purchase intention, as well as the mediating role of flow experience in it, in order to enrich the relevant theories of metaverse marketing and provide certain theoretical guidance for enterprises to carry out metaverse marketing activities.

2. Theory and hypothesis

2.1. Metaverse marketing related overview

Metaverse, originally from the 1992 science fiction novel Snow Crash, is a virtual space parallel to and independent from the real world and is essentially an online virtual world that maps the real world. With the development of technology, the metaverse, as a virtual digital space, provides brand and marketers with new opportunities and challenges. The review of domestic and overseas academic literature provides a certain theoretical basis for a deeper understanding of the field of metaverse marketing and inspiration for future research directions (The author and survey subjects of this article are both located in China, so in the following text, domestic refers to China, while overseas refers to other countries except China). Overseas research on metaverse mostly focuses on the study of metaverse ontology, which mainly involves the definition of the metaverse concept[1], model construction[2], and analysis of associated technologies[3]; it also involves the study of a metaverse in education and learning, which mainly includes teaching methods[4], educational concepts[5], and multilingual teaching[6]; the application of metaverse The application areas of metaverse include games, social, business, etc.[7]. In contrast, domestic metaverse research is later than foreign research, and in 2021, it became a hot topic in the cultural, industrial, and venture capital circles. Domestic studies mainly focus on the conceptual connotation[8], philosophical foundation[9], moral ethics[10], media practice[11], technical construction[12], and application scenarios involved in metaverse[13].

The application fields involved in foreign metaverse research have been pervasive, while domestic research is still in the preliminary stage, and there are significant differences between the research concerns and foreign metaverse research. Both primary and applied research on the metaverse has been covered at home and abroad. However, there needs to be more research on embedding metaverse into marketing models. Some companies have started combining metaverse marketing features revealed by creating stories, digital avatar endorsements, and digital stand-in oriented and blockchain-based digital rights with their brand positioning and target group characteristics to develop long-term promotion strategies.

2.2. Theoretical model

The S-O-R model was discovered by Mehrabian and Russell in 1974 after research and was mainly used to study how stimuli from environmental factors affect individual behavior and attitudes. The S-O-R model consists of three main components: stimulus variables, organism variables, and response variables (Figure 1). The actual content of the model is that when an individual performs certain activities in the environment in which he or she lives, he or she will be stimulated by the stimuli in the environment to produce a stress response and, in the process, will also be influenced by some other factors, such as his or her mental state while performing the activity[14].

Figure 1. The S-O-R model.

2.3. Flow experience

Csikszentmihalyi initially proposed the flow, who believed that individuals focused on a sport or task experience an exhilarating emotion and named it flow. Consumers in a state of flow are characterized by concentration, complete engagement, and a strong sense of pleasure, accompanied by a loss of time, and the loss of time and the pleasurable experience can lead online consumers to purchase behavior[15]. In summary, this paper argues that the flow experience is a comprehensive subjective state in which consumers gain pleasure, focus, and perceptual control during the communication process they engage in when shopping online.

2.4. Consumer purchase intention

Consumer purchase intention is a dynamic decision-making process that includes activities such as forming demand motivation and pre-consumption decisions and is influenced by multiple factors[16]. Existing studies have shown that consumers on factors such as reputation and gender and other factors, such as socio-cultural and customer involvement, affect consumer purchase intention[17]. In this paper, consumer purchase intention refers to the probability that a consumer will likely purchase an item during online shopping after experiencing metaverse marketing.

2.5. Research hypotheses

The article explores the impact of metaverse marketing characteristics on consumers' purchase intentions from a consumer perspective based on the following research model (Figure 2)[18]. Compared to traditional online marketing, metaverse marketing provides a more immersive and interactive consumer experience. In the metaverse, users can create personalized digital avatars and interact in real-time with other users[19]. The three characteristics of metaverse marketing, namely perception, interactivity, and interest, can better attract consumers' attention and interest, thereby increasing their purchasing intention[20]. Based on the above content, and by comparing the impact of metaverse marketing and traditional online marketing on consumer purchase intent, a preliminary research design is conducted and hypotheses are proposed.

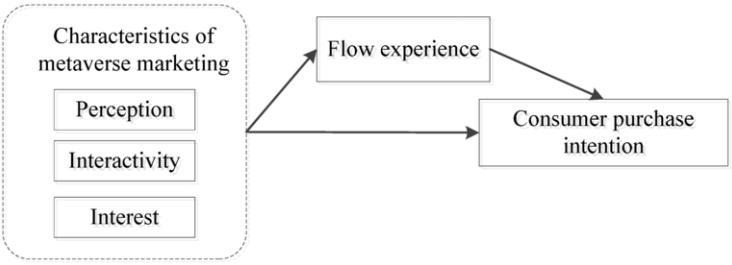

Figure 2. The theoretical model of this study.

2.5.1. Metaverse marketing features have a positive impact on consumers' willingness to purchase

Some studies have shown that the corresponding characteristics perceived by users after being influenced by marketing activities will affect their purchase attitudes, etc. Compared to the flat traditional marketing methods, metaverse marketing applies VR and other technologies to enable consumers to enter the digital twin world, which is expressed as a high-sensory, high-reality virtual environment built under Web 3.0, and the series of characteristics presented by marketing activities in this environment will leave consumers with different impressions on consumers. Suppose users perceive the concept presentation and product experience well after experiencing metaverse marketing. In that case, their willingness to purchase will also increase, which will influence consumers' purchasing behavior. Based on the above analysis hypothesis:

H1: Metaverse marketing features have a positive impact on consumers' willingness to purchase

2.5.2. The influence of perception on purchase intention

Perception is the vivid and rich environmental information presented to the human senses. Data show that the information people can receive in their environment mainly comes from the five senses, so perception is particularly important. Based on the above analysis hypothesis:

H2: Perception has a positive effect on consumers' willingness to purchase

2.5.3. The influence of interactivity on purchase intention

Domestic scholars such as Yan Zongguang believe that interactivity is a direct factor that stimulates consumers' willingness to purchase, and the higher the interactivity, the more robust the favorability and trust of users towards the merchant or business platform, and thus the higher their willingness to purchase. Based on the above analysis hypothesis:

H3: Interactivity has a positive effect on consumers' purchase intention

2.5.4. The impact of interest on purchase intention

Interest refers to the perceived fun the relevant platform will provide the user when the consumer experiences metaverse marketing to make it enjoyable. Chen and Suzuki (2013) argue that the amusement consumers generate when making online purchases will significantly and positively affect their purchase intention. Based on the above analysis hypothesis:

H4: Interest has a positive effect on consumers' purchase intention

2.5.5. The influence of flow experience on consumers' purchase intention

According to the factors influencing the flow experience, the environment in which consumers shop is necessary for forming their flow experience. A review of domestic and international literature shows that many scholars have confirmed that psychological experience positively impacts consumers' willingness to purchase in the shopping process. For example, the higher the degree of flow consumers, feel when shopping, the

more active they will participate in the aggregation of shopping activities and enhance their willingness to purchase. Based on the above analysis hypothesis:

H5: The flow experience has a positive impact on consumers' willingness to purchase

2.5.6. The mediating role of flow experience

When consumers experience metaverse marketing, the perception, interactivity, and interest features will make consumers experience the shopping environment more realistically, engage in it and generate a sense of pleasure so that it is easier for them to enter the state of flow experience. The stronger the flow experience, the more frequently consumers interact with other users, merchants, and products. Based on the above analysis, it is assumed that

H6: Flow experience will play a mediating role between metaverse marketing and consumers' purchase intention

3. Research method

3.1. Research tool

Based on a large amount of relevant literature, this paper combined the mature scale used by previous authors with the actual situation to make certain adjustments to each question item, making the questionnaire more in line with the content of this study. The variables studied in this paper were measured using a five-point Likert scale, with each question item having five dimensions from 1-5, indicating strongly disagree to agree strongly, and the respondents completed the assessment by watching the video to select the corresponding number. The questionnaire involves five variables, namely perception, interactivity, interest, flow experience, consumer purchase intention, control variables, and screening options, with 28 questions. The following briefly describes the measurement scale for these five variables.

The characteristics of metaverse marketing mainly including three dimensions: perception, interactivity, and interest. Among them, the perception measurement questions mainly refer to the study of Steuer (1992); interactivity mainly refers to the studies of Preece (2001) and Steuer (1992); and interestingness mainly refers to the study of Agarwal & Karahanna (2000). Consumers' flow experience during online shopping is an organism variable, and its measurement questions mainly refer to the studies of Skadberg & Kimme (2004) and Chen & Jie (2009). Consumer purchase intention as a response variable and its measurement questions mainly refer to the studies of Zeithaml (1988), Pavlou & Fygonson (2006), and Fan (2007), etc. The design of the items for these 5 variables in the survey questionnaire is mainly based on a comparison of traditional marketing methods. The survey subjects answer based on their understanding of metaverse marketing and their experience, feelings, or expectations of purchasing products under traditional marketing methods.

3.2. Data collection

The data collection phase of this study was from March 18, 2023, to March 25, 2023. The questionnaire was posted to Questionnaire Star and disseminated through social means such as WeChat, and the data were collected after the respondents filled in the questionnaire. A total of 124 questionnaires were collected during the questionnaire run. For cases where the length of the questionnaire was less than 60 seconds, and the same score was chosen for all questions in the process of filling out the questionnaire, i.e., the length of time spent was too short and the attitude of filling out the questionnaire was not serious, the questionnaires were judged as invalid and eliminated. After screening the length and quality of answers, five invalid questionnaires were screened out, and the number of valid questionnaires was 119, with a recovery efficiency of 96%.

3.3. Data analysis

3.3.1. Sample characteristics statistics

After the distribution, filling out, and data collection of the survey questionnaire, the basic characteristics of the sample data of the basic information items in the survey questionnaire were analyzed, including gender, age, education level, and income. Due to the fact that young and middle-aged people are the main force of social consumption and have more exposure to metaverse information in their daily lives compared to other populations, they have become the focus of this survey. The data shows the sex ratio of men and women among the respondents. The proportion of men is 51.83%, and the proportion of women is 48.17%. Among them, the proportion of respondents aged 18-25 is about 60.5%, and the proportion of 26-35 is about 21%. That is, the respondents are mainly young people aged 18-35, accounting for 81.5% of the total sample; About 52.1% of survey respondents have a bachelor's degree, while 24.37% of survey respondents have a master's degree; 57.14% of the group's monthly income is below 3000 yuan. Overall, the sample conforms to the target group of youthfulness in metaverse marketing and the current reality of social education popularization, and the sample data has good representativeness.

3.3.2. Descriptive statistics

According to the previous analysis of the essential characteristics of gender and age of the sample, it is clear that the data recovered from the questionnaire are credible, which lays a good foundation for further analysis of the data to follow, followed by descriptive statistics of the recovered data.

Table 1. Mean and standard deviation of X, M, Y.

Perception	Question	Mean value	Standard deviation
X1.1	Traditional marketing is achieved through images, text, or audio, lacking more sensory experiences.	3.91	0.930
X1.2	Compared to traditional marketing, metaverse marketing with virtual and augmented reality technologies can increase various sensory experiences such as tactile and visual aspects of shopping environments, products, etc.	4.01	0.961

X1.3	Through metaverse marketing with virtual and augmented reality technologies, products present a three-dimensional effect, greatly enriching visual and sensory experiences.	3.98	1.033
X1.4	Through metaverse marketing with virtual and augmented reality technologies, I seem to see and feel real products.	3.76	1.025
Interactivity	**Question**	**Mean value**	**Standard deviation**
X2.1	In traditional marketing methods, consumers mainly receive, select, and evaluate product information in a one-way manner, lacking good interaction with the product.	3.89	1.015
X2.2	Through metaverse marketing with virtual and augmented reality technologies, I can not only observe products but also personally experience them.	3.93	1.006
X2.3	Through metaverse marketing with virtual and augmented reality technologies, I can directly communicate with virtual assistants, like physical store guides, which are fast and natural.	3.79	1.088
X2.4	Under traditional marketing methods, it takes some time for me to have two-way communication with other consumers, but under metaverse marketing, I can directly share shopping information with more consumers in a timely manner.	3.82	1.000
X2.5	Through metaverse marketing with virtual and augmented reality technologies, I can easily access more parameter indicators of products at any time.	3.85	1.047
Interest	**Question**	**Mean value**	**Standard deviation**
X3.1	Traditional marketing methods mainly rely on images, text, and audio to achieve greater visual pleasure and entertainment value.	3.79	0.938
X3.2	This metaverse marketing approach with virtual and augmented reality technology makes me find it very interesting.	3.80	1.117
X3.3	This metaverse marketing method with virtual and augmented reality technology can bring me a sense of pleasure.	3.86	1.019
X3.4	This metaverse marketing method with virtual and augmented reality technology makes me feel very novel and exciting.	3.83	1.044
Flow experience	**Question**	**Mean value**	**Standard deviation**
M1	The virtual experience brought by metaverse marketing will make me feel very happy.	3.85	1.005
M2	When I focus on the virtual experience of metaverse marketing, I tend to overlook what's happening around me.	3.77	1.168
M3	When I focus on this new metaverse marketing virtual experience, I should feel that time flies quickly.	3.82	1.081
M4	I think I can very well manipulate the process of marketing virtual experiences in the metaverse.	3.75	1.091

M5	Through the metaverse marketing virtual experience, I should be able to easily find the products I need.	3.70	1.094
M6	I think this new type of metaverse marketing approach is very beneficial.	3.76	1.112
Purchase intention	**Question**	**Mean value**	**Standard deviation**
Y1	In the future, I will be willing to prioritize products launched through metaverse marketing methods.	3.75	1.002
Y2	Selling products through metaverse marketing will make my shopping frequency more frequent than before.	3.61	1.034
Y3	The new metaverse marketing method has been very helpful to me, and I will often choose to purchase products launched through this method in the future.	3.68	1.041
Y4	I am willing to recommend this metaverse marketing product to my friends.	3.71	1.136

As can be seen from Table 1, the means and standard deviations of each variable indicate that the distribution of the sample is relatively sound, the differences in the respondents' responses to each question item are within the controllable range, and the quality of the questionnaire recall is good.

3.3.3. Reliability analysis

Cronbach's alpha coefficient is the main index to measure the reliability of the collected data, and the reliability analysis results of each factor are shown in Table 2.

From the analysis for the reliability of the variables, it is found that the alpha coefficient of each variable is more significant than 0.6, which indicates that the question items set for each variable in the questionnaire have good credibility.

Table 2. Variable reliability analysis table.

Variable	Cronbach's α coefficient	Number of items
Perception	0.880	4
Interactivity	0.903	5
Interest	0.885	4
Flow experience	0.919	6
Purchase intention	0.867	4

3.3.4. Validity analysis

According to the results of the KMO value and Bartlett's test on the overall data, it was found that the KMO value was equal to 0.882 and the Sig value was 0.000, as shown in Table 3, the data significance was good, and the overall results showed good validity of the questionnaire.

Table 3. KMO and Bartlett's test.

KMO sampling suitability quantity	**.882**	
Bartlett sphericity test	Approximate □	2168.187
	Freedom	378
	Significance	.000

4. Empirical Analysis

In the research model of metaverse marketing features on consumer purchase intention, metaverse marketing features are divided into perception, interactivity, and interest. According to the standardization of the paper format, the independent variable in this article is represented by X, and X1, X2, and X3, respectively, represent these three scenario features. The flow experience is the intermediary variable, so M. represents it. At the same time, consumer purchase intention is the dependent variable, so Y. represents it. This will be more convenient in the subsequent data processing.

4.1. Correlation analysis

Before regressing the recovered data, they should be tested for correlation and multicollinearity, and the results are shown in Tables 4 and 5.

Table 4. Variable correlation coefficient matrix.

	X1	**X2**	**X3**	**M**	**Y**
X1	1				
X2	.464**	1			
X3	.467**	.523**	1		
M	.505**	.636**	.482**	1	
Y	.421**	.625**	.477**	.679**	1

Note: **p<0.01, *p<0.05

Table 5. Independent variable VIF coefficient matrix.

	Sig.	**VIF**
X1	.000	1.000
X2	.000	1.000
X3	.000	1.000

Note: Y is the dependent variable

As seen from Table 4, the correlation coefficients between the three dimensions of the independent variables range from 0.421 to 0.679, indicating a specific correlation between the three characteristics of metaverse marketing. Since they all measure the same variable from different perspectives, it is acceptable to have a specific correlation. As seen from Table 5, the VIFs between the independent variables are all less than 10, indicating no multicollinearity between the variables.

4.2. Regression analyses

4.2.1. Impact of three characteristics of metaverse marketing on consumers' purchase intention

In this subsection of the regression treatment of the data, the perception, interactivity, and interest of metaverse marketing are the independent variables. Consumer purchase intention is the dependent variable for the regression analysis, and the results of the data treatment are shown in Table 6.

Table 6. Regression analysis of the three characteristics of metaverse marketing on consumers' purchase intention.

Argument	Standard coefficient	Standard deviation	t-values	Sig. value
X1	0.421	0.088	5.019	0.000
X2	0.625	0.074	8.652	0.000
X3	0.477	0.081	5.876	0.000

By looking at Table 6, it can be seen that the data results for the three situational characteristics and consumer purchase intention are: the standard coefficient of X1 and Y is 0.421, which is positive, and Sig=0.000, the data passed the significance test, indicating that the data are plausible, further indicating that the perceptual characteristics experienced by consumers through the metaverse marketing activities will have a significant The standard coefficient of X2 and Y is 0.625, which is positive, and Sig=0.000, the data passed the significance test, indicating that the data is credible, further indicating that the interactive features experienced by consumers through metaverse marketing will have a significant contribution to consumer's willingness to purchase, H2 is confirmed; the standard coefficient of X3 and Y is 0.477, which is positive, and Sig=0.000. X3 and Y have a positive coefficient of 0.477 and Sig=0.000, which means that the data passed the significance test, indicating reliability.

By comparing the regression coefficients of different features and consumers' willingness to purchase, different metaverse marketing features affect consumers' willingness to purchase. The coefficient of interactivity and willingness to purchase is 0.625, which is the largest in the regression coefficient, indicating that interactivity has the most significant effect on consumers' willingness to purchase; the coefficient of perception and consumers' willingness to purchase is 0.421, which is the smallest in the regression coefficient. The coefficient of perception is 0.421, which is the smallest among the regression coefficients.

4.2.2. Effect of metaverse marketing characteristics on consumers' purchase intention

In this subsection of the regression treatment of the data, metaverse marketing characteristics are the independent variables, and metaverse marketing characteristics are $\bar{X}$, $\bar{X}$=(X1+X2+X3)/3, which means perception, interestingness, and interactivity. Consumer purchase intention Y is the dependent variable that was regressed for analysis. The results of data processing are shown in Table 7.

By observing Table 7, it can be seen that the regression results of metaverse marketing characteristics and consumer purchase intention, the standard coefficient of `X and Y is 0.6720, which is positive, and Sig=0.000, the data passed the significance test, which indicates that the data is credible, further indicating that metaverse marketing

characteristics have a significant contribution to consumer purchase intention, and hypothesis H1 is valid.

Table 7. Regression analysis of metaverse marketing characteristics and consumer purchase intention.

	Standard coefficient	Standard deviation	t-values	Sig. value
$\bar{X}$	0.6720	0.0910	8.7100	0.0000
R^2			0.3930	
Dependent variable: Consumer purchase intention				

4.2.3. The effect of flow experience on consumers' purchase intention

In this subsection of the regression treatment of the data, the flow experience as M is the independent variable, and the consumer purchase intention as Y is the dependent variable was regressed for analysis. The results of data processing are shown in Table 8.

By observing Table 8, it can be seen that the regression results of flow experience and consumers' purchase intention, the standard coefficient of M and Y is 0.6790, which is positive, and Sig=0.000, the data passed the significance test, indicating that the data is credible, further indicating that the generated flow experience will have a significant contribution to their purchase intention, and hypothesis H5 is valid.

Table 8. Regression analysis of flow experience and consumer purchase intention.

	Standard coefficient	Standard deviation	t-values	Sig. value
M	0.6790	0.0656	9.9960	0.0000
R^2			0.4610	
Dependent variable: Consumer purchase intention				

4.2.4. Mediating effect of flow experience on metaverse marketing characteristics and consumer purchase intention

In this subsection of the regression treatment of the data, metaverse marketing characteristics as `X is the independent variable, consumer purchase intention as Y is the dependent variable, and flow experience is the mediating variable for the regression analysis. The results of the data processing are shown in Table 9.

The indirect effect is 0.1999-0.6272 without passing through 0 at a 95% confidence interval, which proves the existence of mediating effect; the direct effect is 0.1796-0.614 without passing through 0 at a 95% confidence interval, which indicates a partial mediating effect. It shows that the flow experience partially mediates the metaverse marketing characteristics and consumer purchase intention, and hypothesis H6 holds.

Table 9. Regression analysis of metaverse marketing characteristics and consumer purchase intention.

	Effect	se	t	p	LLCI	ULCI
Total effect	0.7923	0.091	8.7105	0	0.6122	0.9725
Direct effect	0.3968	0.1097	3.6181	0.0004	0.1796	0.614
Indirect effect	0.3955	0.1076	/	/	0.1999	0.6272

5. Conclusion and Prospect

5.1. Conclusion

5.1.1. Analysis of metaverse marketing features on consumers' purchase intention

With the arrival of Web 3.0, users no longer deliberately distinguish between real physical presence and digital virtual presence. More importantly, users will want all their friends, personal belongings, and experiences to be connected virtually. The metaverse uses machine learning and decentralization to deliver a more immersive, connected, and open web experience that will disrupt the disruptive traditional consumer experience of shopping for goods only through pictures and text. Whether you create marketing scenarios online or co-create experience scenarios with users, you can play a more decisive role. At the same time, metaverse combines the convenience of online and offline experiences to meet consumer shopping needs better. Therefore, based on the previous research, this paper has researched a large amount of literature and identified three dimensions of consumer acceptance of metaverse marketing scenarios: perception, interactivity, and interest. The results of the data analysis show that the three metaverse marketing characteristics have a very significant positive impact on consumers' purchase intentions. The correlation coefficient between interactivity and purchase intention is 0.625, which means that it has the most significant influence on purchase intention, while the correlation coefficients of perception and interest features are 0.421 and 0.477, respectively, which means that their influence on purchase intention is relatively tiny.

5.1.2. Analysis of the mediating effect of flow experience

The results of data analysis show that the flow experience plays a part in mediating the relationship between metaverse marketing characteristics and consumers' purchase intention, indicating that the characteristics of the environment in which consumers shop after accepting the metaverse marketing scenario can directly or indirectly influence their purchase intention, and the indirect influence process is produced through the flow experience. The specific mediating effect is 0.7923 for the total effect, 0.3968 for the direct effect, and 0.3955 for the indirect effect.

5.2. Prospect

Internet traffic has peaked, and metaverse marketing provides a new channel to reach consumers. Based on the social, immersive, interactive, and user-creative features of the metaverse, metaverse marketing offers great imagination for consumer reach, interactive experience construction, and marketing co-creation in the future.

First of all, in terms of communication reach, the metaverse, as a decentralized digital space, can solve the physical, spatial, and temporal restrictions and is expected to bring inestimable traffic exposure value for the "brand exposure" of enterprises. The advertisement is no longer the graphics and video on a mobile phone/PC screen, but the virtual technology enriches the creativity and advertising expressions, and the users' perception of advertisement is more vivid and involved. Secondly, regarding interactive experience, metaverse marketing will redefine the relationship between enterprises and consumers. Metaverse's immersive live interactive mode brings an immersive experience for users, and consumers become part of the corporate marketing environment and

advertising, showing high participation and flexibility characteristics. The user experience is more vivid in the new creative form. Virtual technology provides enterprises with a new form of creativity and expression, communicating with consumers through more awesome interest and enhancing user advertising experience. Finally, digital space under metaverse marketing empowers users' social relationships and establishes stronger emotional connections, and users and brands will achieve marketing co-creation. In the digital space, the relationship between corporate marketing and consumers revolves around products and establishes solid emotional connections through users' creative, social, and other activities in the digital space. Users become active participants and co-creators of product content and experience and jointly empower companies to build brands, expand channels and create value.

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