



The Mediating Role of eWOM in User Engagement and Purchase Intention Evidence from Young Consumers in Virtual Art Exhibitions

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Abstract. Social media plays a pivotal role in promoting virtual art exhibitions, particularly through electronic word-of-mouth (e-WOM), which significantly influences user engagement and online purchase intention. This study applies the Stimulus-Organism-Response (S-O-R) theory to explore the relationships among user engagement, e-WOM, and purchase intention in virtual art exhibitions. The results demonstrate that user engagement positively impacts purchase intention, with e-WOM mediating this relationship. Additionally, higher e-WOM fosters greater user engagement and enhances the perceived value of exhibited artworks. These findings highlight the critical role of e-WOM in driving user behavior and purchase decisions. This research provides valuable insights for exhibition managers and art marketers to optimize social media strategies, enhance exhibition influence, and attract young consumers. Future studies could extend this work by examining actual purchasing behavior and exploring cross-cultural generalizability.

Keywords: Virtual Art Exhibitions, Engagement, e-WOM, Young Consumers, Online Purchase Intention.

1 Introduction

In the digital era, the rapid evolution of social media has significantly reshaped consumer behavior, brand engagement, and marketing strategies across various industries. Museums and virtual art exhibitions, traditionally reliant on physical interactions, are increasingly leveraging social media to enhance user engagement and drive online art consumption. However, despite the growing integration of digital platforms, there remains a gap in understanding the specific mechanisms through which social media interactions influence consumer purchase intentions. This study is motivated by the need to explore how e-WOM functions within virtual art exhibitions, particularly in the context of young consumers who are redefining the art market through digital engagement and social commerce. By examining the mediating role of user engagement in the relationship between e-WOM and online purchase intention, this research aims to bridge

theoretical gaps in social media marketing and consumer behavior studies. The findings will provide valuable insights for cultural institutions, art e-commerce platforms, and policymakers in optimizing digital marketing strategies, fostering sustainable audience growth, and adapting to the evolving dynamics of art consumption in the social media era.

1.1 Social Media, User Engagement, and Museum Marketing

In contemporary society, social media has become deeply integrated into nearly every domain, including entertainment, education, commerce, and communication [1]. Within the social media environment, user engagement is defined as a key metric for assessing individuals' cognitive responses, emotional connections, and behavioral interactions [2]. However, despite the widespread adoption of Web 2.0 technologies, museum administrators have yet to fully leverage social media's potential [3].

As competition among museums intensifies, increasing visitor engagement has become a crucial focus for operators [4]. Against this backdrop, the effectiveness of traditional marketing strategies has declined, and in some cases, they may even negatively impact brand perception [5]. Consequently, both academia and industry are increasingly interested in reevaluating marketing strategies in the social media era and exploring new interaction models. Moreover, Al-Ja'afreh et al. (2020) argue that understanding users' attitudes and engagement behaviors on social media can help predict their purchase intentions, providing a theoretical foundation for future marketing strategies [6].

1.2 Electronic Word-of-Mouth (e-WOM) and Consumer Behavior

Electronic word-of-mouth (e-WOM) has become a critical factor influencing consumer decision-making [7]. Compared to traditional word-of-mouth, e-WOM has a broader reach and a stronger impact, particularly in the case of negative e-WOM (N e-WOM), which has profound effects on consumers' purchase intentions, brand attitudes, and emotional responses [8]. Studies indicate that negative e-WOM significantly influences consumer behavior through information diagnosticity and negativity bias [9].

Consumers tend to avoid risks in their purchase decisions, making negative information more persuasive than positive information. For instance, Nielsen (2021) found that 82% of consumers read online reviews before making a purchase, and 53% abandon purchases due to negative reviews. Additionally, Wu et al. (2018) suggest that negative e-WOM can spread through emotional contagion, shaping consumer perceptions of a brand and increasing their risk awareness. Research further indicates that the impact of negative e-WOM is particularly pronounced for high-priced and high-involvement products such as luxury goods and artworks [8]. According to a Statista (2022) survey, 72% of consumers lose trust in a brand after encountering three or more negative reviews.

Hennig-Thurau et al. (2004) found that negative e-WOM spreads 2.3 times faster than positive e-WOM [10], especially on social media platforms like Weibo and Xiaohongshu, where it can trigger viral dissemination. For example, in 2023, a luxury

brand faced widespread backlash in China due to a controversial advertisement, resulting in a 40% drop in brand search index, while the brand's sales remained unaffected in Western markets. Scholars have proposed various strategies for managing negative e-WOM, including AI-driven sentiment analysis, influencer marketing, and cross-cultural public relations strategies. Future research could further explore the role of AI in managing negative e-WOM and examine cultural differences in consumer sensitivity to negative word-of-mouth.

1.3 E-WOM, User Engagement, and Online Purchase Intention

While extensive research has explored the direct impact of e-WOM on purchase intention, existing literature primarily focuses on e-commerce and the tourism industry, with relatively few studies addressing virtual art exhibitions [6]. Barlas et al. (2020) argue that e-WOM plays a critical role in predicting user engagement and video views, but its influence on Chinese social media platforms such as Douyin and Weibo remains underexplored. Furthermore, limited research examines whether e-WOM serves as a mediating variable between user engagement and purchase intention [11]. Therefore, investigating how e-WOM mediates the relationship between user engagement and purchase intention has become an important research direction.

1.4 Online Art Purchase Intention and Young Consumers

Current studies on online purchase intention primarily focus on macro-market perspectives, such as aesthetics, art transactions, marketing, and the development of the art market [12]. However, artworks are unique commodities with subjective valuations, high price points, non-essential consumption attributes, and require long-term cultural exposure [13]. Traditionally, the primary consumers of artworks have been older individuals with financial stability, seeking either spiritual enrichment or investment opportunities. Additionally, due to the limited and specialized sales channels in the art market, research on individual consumer behavior remains scarce [12].

Nevertheless, young collectors are rapidly emerging as a dominant force in the art market [14]. In China, the younger demographic is characterized by its large market size, deep digital penetration, and diverse cultural consumption preferences, making it a significant driving force in the global art market. According to China's National Bureau of Statistics (2023), Generation Z (born 1995–2009) comprises 280 million individuals, accounting for 20% of the total population. The youth art consumption market reached ¥12 billion in 2022, growing by 85% year-on-year. Their purchasing behavior is shaped by both policy environments and platform mechanisms, exhibiting a preference for socially driven consumption, strong identification with Guochao (China-Chic) art, and enthusiasm for digital collectibles.

For example, an iResearch (2023) study revealed that 65% of Chinese youth purchase artworks via e-commerce platforms such as Taobao and Dewu, while 28% acquire them through offline exhibitions, and 52% of Gen Z have purchased virtual collectibles. Unlike Western consumers who are primarily investment-driven, Chinese

youth prioritize social sharing, with 71% citing social needs as their primary motivation, while only 15% purchase for investment purposes. Additionally, China's regulatory restrictions on NFT transactions (e.g., bans on secondary market trading) have concentrated youth art consumption on low-cost, entertainment-oriented digital collectibles. Meanwhile, the Chinese government's 14th Five-Year Plan promotes cultural IP development, significantly increasing the purchase ratio of Guochao artworks. Innovations in platform mechanisms, such as social commerce models on Taobao and "RED-note", have lowered the entry barriers for art purchases, with buyers under 30 now comprising 44% of the online auction market.

This study fills a gap in the systematic research on Chinese youth art consumption behaviors by integrating cultural consumption theory, the Technology Acceptance Model (TAM), and institutional theory to construct an analytical framework suited for emerging markets. The theoretical contribution lies in revealing cross-cultural differences in youth consumption behaviors, while the practical significance is reflected in optimizing user experience on art platforms, formulating precise marketing strategies, and informing policy decisions.

In the context of virtual art exhibitions, the relationship between user engagement, e-WOM, and online purchase intention remains complex, with no clear research identifying whether user engagement mediates the relationship between e-WOM and purchase intention. This study aims to examine the mediating role of user engagement between e-WOM and online purchase intention, addressing a critical research gap. Specifically, for Generation Z consumers, empirical research is needed to investigate how participation in virtual art exhibitions on social media influences their purchase intentions. This research will not only enrich theoretical frameworks in social media marketing and user behavior but also provide practical insights for art e-commerce platforms and cultural institutions in designing more targeted marketing strategies.

2 Literature Review

2.1 User Engagement's Impact on Online Purchase Intention

With the development and widespread adoption of internet technologies, user engagement plays an increasingly vital role in virtual environments. The rise of social media enables users to have more direct and in-depth interactions with brands and products, while personalized recommendations and services further enhance users' sense of engagement and loyalty. In the digital era, this high level of engagement not only increases the number of users but also deepens their awareness and trust in brands and products, thus facilitating the formation and conversion of online purchase intentions [15]. In social media, user engagement refers to the degree of active participation and interaction of users in specific platforms or environments, including actions such as likes, comments, and shares [11]. Past research findings indicate that the quality of online comments positively influences consumers' purchase intentions. Additionally, purchase intentions increase with the number of comments, and low-engagement consumers are influenced more by comment quantity than comment quality, unlike high-

engagement consumers [16]. Furthermore, increased user engagement not only enhances awareness and trust in products or services but also strengthens users' sense of involvement and satisfaction in the purchasing process, thereby fostering the formation of purchase intentions [17]. Moreover, higher user engagement promotes the formation of e-WOM, which in turn influences user purchase decisions [18].

Surveys show that engagement in virtual art exhibitions is closely related to consumers' perception and preferences for artworks. Additionally, user engagement on social media platforms can impact consumers' emotions, which in turn influence purchase intentions [19]. Furthermore, high cognitive engagement is associated with higher purchase intentions, as cognitive and emotional engagement, as well as behavioral involvement, directly promote continued purchase intentions because consumers tend to purchase products they perceive to better meet their needs [20]. Consumers with high behavioral engagement are more likely to exhibit positive behaviors during purchases, such as repeat purchases and brand loyalty [21]. Customer experience has a significant positive impact on psychological involvement and visual perception, both of which significantly influence consumers' purchase intentions. Therefore, we can propose the following hypotheses:

H1: User engagement is positively correlated with online purchase intention.

2.2 The Impact of User Engagement on Electronic Word-of-Mouth (e-WOM)

With the widespread use and increased frequency of social media, user engagement on platforms directly influences the formation and dissemination of e-WOM. As the internet develops, e-WOM becomes more reliable in spreading company, product, or brand information [22]. The level of customer engagement with a product will change based on the scope of searching for other information and the decision-making process [23]. Research indicates that positive e-WOM can significantly increase engagement. Users who are actively engaged often express more support and appreciation for a brand or product, leading to more positive e-WOM. Conversely, users with negative or low engagement may express negative emotions or dissatisfaction on social media, leading to negative e-WOM spread and reducing user engagement desire [24]. Additionally, user engagement can indirectly influence the formation and dissemination of e-WOM by affecting other users' emotions and attitudes [25]. In social networks, there exists a network of information and emotion dissemination, where highly engaged users often have greater influence and dissemination power, and their positive e-WOM can spread quickly and influence other users' views and decisions. Therefore, user engagement is not only an important factor in the formation of e-WOM but also a key factor influencing the effectiveness of e-WOM dissemination.

In the marketing of virtual art exhibitions, social media serves as an ideal platform for e-WOM dissemination, where users share their views on virtual art exhibitions through text, photos, videos, and other forms on social media, thereby expanding the reach of e-WOM and positively impacting engagement [26]. Additionally, social media is seen as a direct communication channel that provides more opportunities for audience engagement with virtual art exhibitions through its interactive and shareable features

[27]. Through social media, audiences can share, discuss, and interact, thereby enhancing overall engagement and facilitating interaction between art galleries and participating consumers as well as among participating consumers [27,28]. Therefore, we propose the following hypotheses:

H2: User engagement has a positive impact on e-WOM.

2.3 The Impact of Electronic e-WOM on Online Purchase Intention

With the prevalence of social media and digital platforms, consumers tend to rely more on e-WOM to gather information and evaluations about products or services. This type of word-of-mouth originates from other consumers' real experiences and evaluations, thus it possesses higher credibility and persuasiveness, thereby promoting the formation and conversion of online purchase intentions. According to the definition provided by Schiffman and Kanuk (2005), purchase intention is the likelihood of customers' strong willingness to purchase a product; the higher the likelihood, the stronger the purchase intention. E-WOM is an important factor influencing consumers' purchase decisions [29]. Studies have shown that reliable sources from the internet will positively influence consumers' purchase intentions, confirming that e-WOM can to some extent persuade people to increase their purchase intentions. Entertainment-oriented virtual art exhibitions are more likely to be shared on social media platforms, thus increasing their visibility and potentially influencing others' purchase decisions.

WOM serves as a non-official communication channel for specific products or services provided through the internet [30]. It is also an important resource for customers and potential buyers to convey their experiences with products. By sharing positive or negative viewpoints related to enterprises or products on internet platforms, this faster and more convenient medium may quickly reach target buyers to promote recognition of resonating products [31]. Furthermore, e-WOM can increase or decrease due to customers' perceptions of truly commendable or shocking service and product quality [32]. Therefore, e-WOM is crucial for product marketing.

Museums, art galleries, and exhibition spaces also need profitability for development, and they likewise need to utilize e-WOM recommendations in their marketing strategies to influence consumers' purchase intentions. Positive reviews shared by visitors on social media about virtual art exhibitions establish trust through the internet, thus positively impacting purchase intentions [33]. Therefore, we propose the following hypotheses:

H3: e-WOM has a positive impact on online purchase intention.

2.4 The Impact of User Engagement on Online Purchase Intention and the Mediating Role of e-WOM

In the context of virtual art exhibitions, audiences tend to be more influenced by positive e-WOM. Therefore, positive e-WOM significantly enhances the purchase intentions of young customers [34]. Consequently, when consumers share positive e-WOM on social media, it not only increases engagement but also positively influences their online purchase intentions. However, negative e-WOM may have a detrimental impact

on purchase intentions [35]. This emphasizes the need to consider the role of e-WOM comprehensively when devising marketing strategies for virtual art exhibition venues, promoting positive e-WOM while managing negative e-WOM.

Al-Gasawneha and Al-Adamat (2020) conducted a study evaluating the mediating role of e-WOM in content marketing and its relationship with green purchase intentions in Jordan. Purwianti and Khoviati (2021) further studied the impact of service recovery characteristics (such as fairness in allocation, procedural fairness, and interactive fairness) on sponsorships for star-rated hotels, with satisfaction and e-WOM as mediating variables. The results indicated that e-WOM was overestimated as an intermediary element between customer loyalty and satisfaction [36]. Rawal and Saavedra (2017) examined the influence of e-WOM on the movie theater business, where box office revenue and pre-sales actions were considered intermediaries through e-WOM [37]. The research findings revealed that e-WOM was the sole intermediary factor connecting celebrities and box office revenue. Based on previous studies, we propose the following hypotheses:

H4: User engagement impacts online purchase intention through e-WOM.

2.5 Theoretical Framework

The conceptual model constructed in this study further redefines the Stimulus-Organism-Response (S-O-R) theory, with the aim of explaining user behavioral responses to external stimuli. Within the framework of S-O-R, the online purchase intention in social media-based virtual art exhibitions operates. These exhibitions provide users with unique psychological stimuli, influencing their emotions and cognition through visual aesthetics and service forms. This service or stimulus leads consumers to experience emotional changes and cognitive enhancement during the exhibition, ultimately influencing their purchasing behavior decisions.

Engagement and online purchase intention are influenced by e-WOM on social media, which may impact user engagement decisions. This integrated theoretical framework helps delve into the mechanisms by which e-WOM in social media virtual art exhibitions affects engagement and online purchase intention(see Fig. 1). To address the research question, we propose the following research framework:

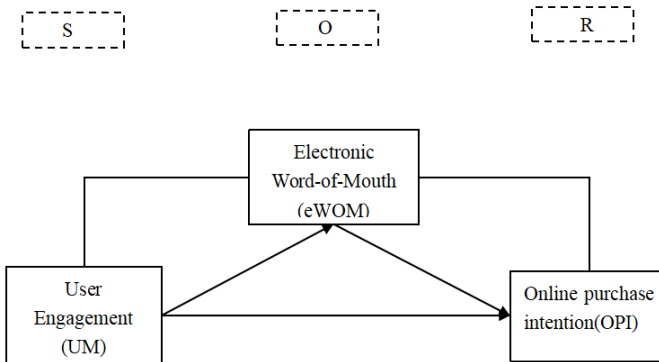


Fig. 1. Theoretical Framework

3 Methodology

3.1 Sample and Procedures

The data study sample in this article consists of virtual art exhibitions held in China between 2022 and 2023, targeting young audiences engaged in discussions, sharing, etc., on social media platforms. We utilized a snowball sampling procedure (Goodman, 1961) to collect data, informing participants of the academic research purpose of the survey and ensuring the confidentiality of survey information to guarantee data authenticity. We distributed 450 survey questionnaires and received 384 valid responses after excluding invalid ones. Among the participants [38], 53.6% were male, and 46.4% were female. Participants answered questions using a five-point Likert scale (1=Strongly Disagree, 5=Strongly Agree).

3.2 Measures

The three-item engagement scale created by Shu-Hsien Liao and Yu-Chun Chung (2019) was used to gauge user engagement [39]. The electronic word-of-mouth scale included 7 items, and the online purchase intention scale comprised 9 items. Relevant items were selected and modified according to the research context of virtual art exhibition social media usage. A 5-point Likert scale was utilized (ranging from 1=strongly disagree to 5=strongly agree). Cronbach's alpha values, as presented in Table 1, demonstrate the reliability of the scales used in this study.

Table 1. Cronbach's alpha values are shown in the table.

Variable	Number of items	Reliability
User engagement	3	.879
Electronic Word-of-Mouth	7	.865
Online purchase intention	9	.831

3.3 Control Variables

Gender, age, and educational attainment were chosen as control variables based on previous research on consumer purchase intention in order to lessen the possible impact of external factors on the variables being studied.

4 Results

4.1 Confirmatory Factor Analysis

The current study used confirmatory factor analysis with structural equation modeling (Amos 25.0). The fit indices for the four-factor model show strong discriminant validity

among the scales, with $\chi^2/df = 3.47$, RMSEA = 0.11, CFI = 0.96, IFI = 0.96, and TLI = 0.97. Table 2 below displays the detailed results:

Table 2. : Confirmatory factor analysis results.

Model	Contained Factors	χ^2	df	χ^2/df	RMSEA	CFI	IFI	TLI
Single factor model	UE + e-WOM + OPI	400.00	77	5.19	0.25	0.78	0.78	0.75
Two-factor model	UE + e-WOM; OPI	350.00	76	4.61	0.24	0.85	0.85	0.80
Three-factor model	UE; e-WOM; OPI	300.00	74	4.05	0.13	0.96	0.94	0.95
Four-factor model	UE; e-WOM; OPI; e-WOM-UE Path	250.00	72	3.47	0.11	0.98	0.96	0.97

N = 384. UE, User Engagement; e-WOM, Electronic Word-of-Mouth; OPI, Online purchase intention.

Descriptive statistics and relationships between the primary variables are shown in Table 3. Table 3 below displays the specific outcomes in detail:

Table 3. The study variables' means, standard deviations, and correlations.

Variable	Mean	SD	1	2	3	4	5
Engagement	4.75	1.30	—				
e-WOM	5.10	1.25	0.25**	—			
Online Purchase Intention	4.90	1.31	0.35**	0.40**	—		
Age	26.00	2.50	−0.04	−0.10	0.08	—	
Gender	1.40	0.50	0.06	−0.08	0.12	−0.10	—
Education	2.60	0.80	−0.12	−0.09	−0.11	−0.20*	0.18

N = 384. Gender: 1 = male, 2 = female. *p < 0.05; **p < 0.01.

In research, correlation is a key tool for understanding the relationships between variables. The correlation coefficient measures the strength and direction of the linear relationship between two variables, ranging from -1 to 1. A positive correlation coefficient indicates that the two variables move in the same direction, while a negative correlation coefficient indicates they move in opposite directions. A zero correlation coefficient indicates no linear relationship between the variables. For the variables in this table, we can explain the key relationships through the correlation coefficients as follows:

The Relationship Between User Engagement and Online Purchase Intention (H1).

Table 3 shows that the correlation coefficient between User Engagement (Engagement) and Online Purchase Intention is 0.35**, which is a significant positive correlation.

This indicates that as user engagement increases, their online purchase intention also increases. This significant positive correlation supports Hypothesis H1, which states that user engagement positively influences online purchase intention.

The Relationship Between User Engagement and Electronic Word-of-Mouth (e-WOM) (H2). The correlation coefficient between User Engagement and e-WOM is 0.25**, which is also a significant positive correlation. This means that higher user engagement is associated with a greater likelihood of participating in e-WOM, thereby supporting Hypothesis H2, which states that user engagement positively influences e-WOM.

The Relationship Between e-WOM and Online Purchase Intention (H3). The correlation coefficient between e-WOM and Online Purchase Intention is 0.40**, which is a significant positive correlation. This result indicates that e-WOM has a significant positive influence on online purchase intention, supporting Hypothesis H3.

The Mediating Role of e-WOM Between User Engagement and Online Purchase Intention (H4). Although the direct correlation coefficient between User Engagement and Online Purchase Intention is 0.35**, we also need to consider the mediating role of e-WOM. The significant positive correlation between e-WOM and Online Purchase Intention (0.40**) and between User Engagement and e-WOM (0.25**) suggests that through e-WOM, user engagement can indirectly influence online purchase intention. This supports Hypothesis H4, which states that e-WOM mediates the relationship between user engagement and online purchase intention.

4.2 Control Variables

In addition to the main variables, control variables such as Age, Gender, and Education Level, although having weaker or non-significant correlations with the main variables, still provide valuable information. For example, there is a significant negative correlation between Education Level and Age (-0.20*), indicating that education level may decrease with increasing age, though this finding may require further interpretation and research.

In conclusion, through correlation analysis, we can understand and validate the research hypotheses and reveal the complex relationships between variables. These findings not only validate the hypotheses but also provide important directions and bases for future research.

4.3 Hypothesis Testing

Table 4. Results of the moderated regression analyses.

Variables	PI	PI	PI	PI	E	E	E	E
Model	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model8
Control varia- bles								
Age	0.04	0.04	0.04	0.03	0.04	0.02	-0.04	-0.08
Gender	-0.08	-0.09	-0.05	-0.07	-0.07	-0.07	-0.09	-0.07
Education	0.19*	0.25*	0.21*	0.22*	0.09	0.08	0.04	0.06
Independent variable								
Engagement	0.42***	0.46***	0.41***	0.58	0.07			0.06
Mediator								
e-WOM	0.49***	0.42***						
Interaction term								
Engage- ment×E-WOM					0.25***			
R ²	0.04	0.26	0.27	0.45	0.03	0.07	0.26	0.34
ΔR ²	0.03	0.19	0.31	0.26	0.04	0.06	0.14	0.08
F	3.16	14.01***	17.58***	20.94***	0.71	5.06**	10.75*****	12.46***

N = 384. Engagement, Online Purchase Intention, and their interaction term were centered prior to analysis. *p < 0.05; **p < 0.01; ***p < 0.001. Purchase Intention:PI;Engagement:E.

We tested our predictions through a series of multiple regression analyses, as indicated in Table 4. We looked at mediated effects after direct effects.

After adjusting for age, gender, and educational attainment, direct effects analysis showed that, in Model 1, Engagement had a direct effect coefficient of 0.42*** on Purchase Intention, showing a significant positive impact of Engagement on Purchase Intention. Model 2 shows a significant and marginally rising direct effect coefficient of Engagement on Purchase Intention of 0.46***. The engagement to purchase intention direct effect coefficient in model 3 is 0.41***, which is marginally less significant but still substantial. When taking into account e-WOM, Model 4's engagement on purchase intention direct effect coefficient of 0.58 indicates a stronger direct influence of engagement on purchase intention.

Furthermore, the mediating effects indicate that in Model 5, the direct impact coefficient of e-WOM on Purchase Intention is 0.49***, demonstrating a significant positive influence of electronic word-of-mouth on purchase intention. In Model 6, the direct impact coefficient of e-WOM on Purchase Intention is 0.42***, still significant but slightly weakened. In Model 7, the coefficient of Engagement × e-WOM (interaction term) is 0.25***, indicating a significant interaction and mediation effect between engagement and electronic word-of-mouth. Model 8 further considers the impact of e-

WOM as a mediating variable. In this model, the direct impact coefficient of engagement on purchase intention is 0.06, while the mediation impact coefficient through e-WOM is 0.25***. This suggests that e-WOM plays a significant mediating role between engagement and purchase intention. User engagement influences purchase intention by triggering electronic word-of-mouth (e.g., users sharing or commenting on social media). This mediation effect may be because consumers tend to trust the opinions and reviews of other consumers, especially in the internet era where consumers can easily access information and opinions through electronic channels.

Overall, the results of these models indicate that while user engagement has a relatively small direct impact on purchase intention, its impact is significantly amplified through the mediation of electronic word-of-mouth. Additionally, controlling variables also have a certain degree of influence on purchase intention.

5 Discussion

This study aims to explore how e-WOM mediates the engagement and online purchase intention of young consumers in the context of virtual art exhibitions. By delving into the relationships among these factors, this research seeks to fill gaps in existing studies by providing a deeper understanding of the relationships between e-WOM, user engagement, and online purchase intention. This understanding can offer valuable insights and recommendations for the operation and marketing of virtual art exhibition platforms, introducing a new perspective on online purchase intention for social media-based virtual art exhibitions.

The study results indicate that engagement has a positive impact on purchase intention; engagement positively influences e-WOM; e-WOM also directly influences purchase intention positively. However, engagement enhances its impact on purchase intention through e-WOM, demonstrating a mediating effect. Specifically, the higher the user engagement, the better the positive e-WOM, and the stronger the impact of engagement on purchase intention through e-WOM, and vice versa.

5.1 Significance of the Study

With the rise of online virtual art exhibitions, artists and cultural institutions are discovering new ways to engage the public. Utilizing the widespread coverage and interactivity of social media can effectively increase public engagement with artworks and online purchase rates. Firstly, the theoretical contribution of this paper supplements previous studies on online purchase intentions. Reviewing past research on purchase intentions, the author found that scholars mostly focused on items such as clothing, travel websites, and agricultural products, with limited research on art products. This paper builds a model of the relationship between engagement and online art consumer buy intentions, offering a useful addition to related research. It is based on theoretical studies on user engagement, e-WOM, and purchase intentions, along with the qualities of artworks.

Second, the paper's usefulness comes from offering precise direction and recommendations to cultural organizations, artists, and social media managers. By revealing the role of social media in virtual art exhibitions, the study offers practical recommendations for improving exhibition strategies and designing more engaging social media content. The research helps enhance the attractiveness and interactivity of virtual art exhibitions, increasing consumers' online purchase rates.

5.2 Limitations and Future Research

This study explores the relationship between e-WOM, user engagement, and online purchase intention through a questionnaire-based survey, analyzing the behavioral characteristics of Generation Z consumers in the context of virtual art exhibitions. However, several limitations exist, and future research can further deepen the investigation in multiple aspects.

Although the questionnaire method effectively captures consumers' subjective attitudes, it may be influenced by social desirability bias and self-report bias, potentially leading to discrepancies between users' reported intentions and their actual behavior. To address this limitation, future research could incorporate behavioral data, such as social media interaction metrics, user-generated content analysis, or experimental methods (e.g., eye-tracking and emotion recognition technology), to enhance the external validity of the findings.

This study primarily examines the impact of e-WOM and user engagement on online purchase intention, without considering potential moderating factors such as brand trust, cultural identity, and social influence. For instance, prior research suggests that brand trust can mitigate consumers' sensitivity to negative e-WOM, while cultural identity may shape users' sense of affiliation with art brands [40]. Future studies could expand the scope of variables to construct a more comprehensive theoretical framework, incorporating these moderating factors to better explain the dynamics of consumer behavior.

While this study focuses on Generation Z consumers, who exhibit a high level of receptivity to social media marketing and online shopping, consumers from different age groups, economic backgrounds, or cultural contexts may demonstrate distinct decision-making patterns. To enhance the generalizability of the proposed model, future research could adopt a cross-cultural or intergenerational comparative approach, examining how demographic and cultural differences influence the relationships between e-WOM, user engagement, and purchase intention.

With the rapid advancement of emerging technologies such as artificial intelligence (AI), augmented reality (AR), and virtual reality (VR), the interaction patterns of social media marketing are undergoing significant transformation. For example, AI-driven recommendation systems may enhance the personalized dissemination of e-WOM, while VR/AR technologies could increase immersion and perceived value, thereby influencing purchase intention. Future research could explore how these technologies mediate user engagement and affect purchase decisions, providing more precise and actionable marketing strategies for online art platforms and cultural institutions.

In conclusion, while this study offers theoretical contributions to the understanding of user behavior in the social media environment, there remains substantial room for further exploration. Future research should integrate behavioral data, expand variable selection, conduct cross-cultural analyses, and examine the impact of emerging technologies to enhance both the theoretical and practical implications of the findings.

Acknowledgements

We sincerely thank Universiti Utara Malaysia for providing the platform for this research. As a result, this research could be conducted appropriately and yield such outcomes. This research has also received support and assistance from some individuals. We want to thank them for their valuable and constructive input.

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