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Enhancing E-commerce purchase intentions through AI-personalized short videos: An SOR and flow theory perspective

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Abstract: This study examines the determinants of e-commerce purchase intentions in the context of AI-personalized short video recommendations, highlighting the mediating role of immersive experience and the moderating effects of privacy concerns and information quality. A quantitative survey was conducted with 317 experienced online shoppers in Ho Chi Minh City, and data were analyzed using SmartPLS 4 and SPSS 22 to test the proposed relationships. Findings indicate that relevant, inspirational, and emotional experiences significantly enhance immersive experience, with emotional experience exerting the strongest effect. Immersion, in turn, positively influences purchase intentions, serving as a crucial link between experiential stimuli and behavioral response. While privacy concerns weaken and information quality strengthens the relationship between immersion and purchase intention, their moderating effects are relatively minor compared to the direct impact of immersion. The study suggests that e-commerce platforms should optimize AI-driven short video content to emphasize relevance and emotional resonance, while providing accurate, transparent, and appealing product information to enhance conversion and sustain consumer trust. By integrating immersive experience as a central mediator and empirically testing the dual moderating roles of privacy concerns and information quality, this research extends the Stimulus–Organism–Response framework and Flow Theory, offering both theoretical advancement and practical insights for improving the effectiveness of AI personalization in digital commerce.

Keywords: *AI-personalized, E-Commerce, Immersive experience, Short video recommendation.*

1. Introduction

The growth of artificial intelligence (AI) is transforming the way businesses worldwide interact with customers, especially with the advancement of personalized recommendation systems [1]. For example, thanks to the ability to analyze human speech and gestures from available data, AI can easily support sales staff in solving customer problems [2], and in some simpler cases, AI can even replace customer service staff with conversational agents (CA) [3]. The significant changes brought by AI in the way businesses interact with customers are not only improving the customer experience but also enhancing the ability to recommend personalized products to each customer [4]. Therefore, it can be seen that AI in the digital age is gradually becoming a powerful tool to help businesses not only interact with consumers more easily but also maintain customer loyalty more sustainably [5]

A clear example of the widespread application of AI personalization is the popularity of personalized recommendation systems on e-commerce platforms such as Amazon, eBay, and Shopee. These systems serve as strategic sales tools, encouraging exploration and shopping behaviors [6-8]. This system optimizes the user experience, helping to identify suitable products and even stimulating impulse buying [9, 10], while also acting as a "friend" that understands needs and preferences [11]. Beyond just product recommendations, AI personalization also demonstrates outstanding effectiveness when applied to short videos, optimizing the ability to convey dynamic content and helping consumers quickly visualize product

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features and functions, thereby enhancing awareness and interest [12, 13]. AI-personalized suggested video content can significantly shorten the customer journey, from awareness to action [14], opening a practical e-commerce pathway by meeting individual needs while promoting quicker and more accurate purchase decisions [15].

During the process of consuming content from short videos suggested by an AI-personalized system, consumers can experience positive emotions and excitement due to the dynamic rhythm, lively sounds, and storytelling elements that stimulate immediate emotional experiences and enhance engagement [16, 17]. The appeal of short videos lies not only in their entertainment value but also in their ability to personalize content based on behavioral data, thereby suggesting relevant experiences and boosting interest and purchase intentions [18, 19]. Additionally, inspirational content featuring creative themes, captivating styles, and visuals can evoke new consumer needs and motivations [16, 20]. When users encounter a personalized and engaging video, they can easily enter a state of immersion, nurturing their interest and enhancing their readiness to receive product information and creating a sense of real-life experience [21, 22]. Furthermore, short videos incorporating accurate and reliable product information help consumers solidify their purchase decisions without seeking additional sources [23, 24]. However, a high level of personalization also raises privacy concerns, especially when there is a lack of transparency regarding how personal data is collected and processed [25, 26]. Thus, it can be seen that these factors simultaneously influence online purchasing behavior and intention, contributing to the natural and effective transformation of interest into consumer action within the e-commerce environment [27, 28].

The topic of AI personalization in e-commerce has garnered significant attention within the research community in recent years [7]. Numerous studies have approached this topic from various perspectives, such as examining the effectiveness of product recommendation systems in enhancing engagement and retaining consumers [9], as well as the impact of AI on satisfaction, loyalty, and user experience on digital platforms [29]. These scholarly efforts indicate that AI personalization is a technological trend and a strategic solution for improving customer experience and driving consumer behavior in the e-commerce environment [30, 31].

To address the existing research gaps and limited empirical evidence within the context of cultural and technological characteristics in emerging markets, this study also aims to clarify the mediating role of immersive experience in the relationship between AI-personalized short video content and consumer behavior. At the same time, it expands the research scope to short video platforms beyond traditional e-commerce, investigating the transmission of commercial information through short videos. Accordingly, this study will design a theoretical framework, collect survey data, test hypotheses, and analyze results. The research objectives are as follows: (i) to explore and describe the role of AI-personalized short video recommendation systems in enhancing consumers' experiences and perceptions; (ii) to examine the multidimensional relationships between consumer experiences (relevant, emotional, and inspirational), immersive experience, information-related factors (privacy concern, information quality), and e-commerce purchase intentions; and (iii) to propose strategic recommendations for e-commerce businesses in Vietnam to improve the effectiveness of AI-personalized applications in short video content.

2. Literature Review

2.1. SOR Theory (Stimulus-Organism-Responses)

The Stimulus–Organism–Response (SOR) theory, developed from the cognitive learning framework [32], posits that consumer behavior is not formed directly from external stimuli but through an internal cognitive processing mechanism. The SOR theory has been widely used in e-commerce to examine factors that affect consumers' repurchase intentions [33] and the mechanisms behind impulsive buying behavior in livestreaming [34, 35]. In this study, factors such as relevant experience, inspirational experience, emotional experience, privacy concern, and information quality serve as stimuli (S). These stimuli affect the internal cognitive state (O), represented by immersive experience and consumers' sense of connection with the content, which leads to the response of e-commerce purchase intentions.

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2.2. Flow Theory

The Flow theory, proposed by Csikszentmihalyi and Csikszentmihaly [36], describes an optimal psychological state in which individuals become fully immersed in an activity. In this state, they lose track of time and filter out irrelevant information. Flow has been identified as a mediating factor that fosters impulsive buying behavior when users engage with AI-personalized short videos on e-commerce platforms [13]; as a means to measure consumers' emotional states in online shopping experiences that positively influence satisfaction and e-commerce purchase intentions [37, 38]. In this study, Flow Theory is utilized to clarify the mediating role of immersive experience when consumers are exposed to AI-personalized short video recommendations. Highly appealing and preference-congruent content increases the likelihood of entering the flow state, which not only enhances repeated interaction with the platform but also motivates e-commerce purchase intentions.

2.3. AI-Personalized Short video Recommendation

Optimizing the customer experience by customizing content, products, and display interfaces to individual user preferences, behaviors, and data is at the heart of personalization in e-commerce [39, 40]. When powered by artificial intelligence (AI), personalization becomes automated, accurate, and adaptive in real time by analyzing large amounts of behavioral data and making highly relevant recommendations [41, 42]. In the past, research on personalization in e-commerce mainly focused on traditional recommendation forms, exploiting text and static image data such as product descriptions or reviews [43, 44]. Nowadays, the development of technology has opened a new avenue: personalized recommendations through short videos.

In the context of digital consumption, short videos are not only an entertainment tool but are gradually becoming an important part of promoting shopping behavior through AI-based personalized content recommendation strategies [13], especially in e-commerce platforms in Southeast Asia such as TikTok Shop [45] or Shopee [46]. Unlike static images or text, short videos create a multi-sensory experience through moving images, sounds, background music, and dialogue [47], making users more easily emotionally engaged and maintaining attention longer [17]. Through the AI algorithm mechanism that tracks and analyzes real-time user behavior data [48] to automatically suggest videos with content, format, and topics that are close to users' interests, consumption habits, and current context. When suggested to the right needs and at the right time, short videos can stimulate emotions and convert into purchase intentions more effectively [49]. Therefore, AI-personalized short video recommendation in e-commerce is a combination of technology and a new customer experience strategy with deep personalization and high conversion potential.

2.4. Customer Experience on E-Commerce

In e-commerce, customer experience is not only the result of user interactions but also plays a pivotal role in shaping online shopping behavior and brand engagement. Customer experience is the sum of emotions, perceptions, and impressions that consumers form during their interactions with content, products, or services [50] at various touchpoints in the consumer journey. The AI-Personalized Short Video Recommendation touchpoint, in particular, provides a more immersive and receptive experience through combining multimedia content relevant to the needs and internal context [51]. This form acts as a marketing tool and a cognitive and emotional trigger, initiating consumers' psychological processing during the shopping experience journey [52].

One of the core factors that shape the user experience of AI-personalized short video recommendations is the relevant experience of the content. According to Yin et al. [53], when consumers perceive the recommended short videos as highly relevant to their interests, needs, or context, the experience becomes more compelling, and the perception of the content increases. Through the AI system that tracks signals such as video viewing duration, skip rate, search history, etc., in real time [48], the

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algorithm will automatically recommend short videos about products that are close to the user's current interests, needs, and context [54]. According to research by Bao et al. [55] the PR² (Personalized Retrieval & Ranking) system in the short-form video search environment increased CTR@10 by 10.2%, video viewing time increased by 20%, and daily active users increased by 1.6% by improving the level of content personalization to match user interests. This data highlights that in the fast-paced ecosystem of short-form videos in e-commerce, relevant experience plays a key role in retaining users. When video content matches current perception, viewers are more likely to enter a state of immersive experience, allowing them to focus more deeply, process emotions, and perceive product value more effectively, thereby increasing consumption intention [21].

The ability to inspire through AI-personalized short video recommendations activates deeper user interaction with the e-commerce platform. In marketing, an inspirational experience is a specific psychological state that occurs when consumers feel inspired by ideas, positive emotions, or the desire to act through receiving targeted content [56, 57], considered an emotional and cognitive factor between "knowing" and "wanting to act." Unlike relevant experiences directly associated with rational benefits, inspirational experiences can shift attitudes and awaken latent needs [58]. They help consumers envision what they would "look like" if they used the product. The study on tourism by Khoi et al. [59] is one of the most unmistakable pieces of evidence, which shows the ability of short video content to inspire not only initial attention but also to trigger a psychological state of immersion. When users feel present in the content environment, they are more likely to engage deeply with the video and the platform, thereby enhancing the ability to form consumer motivation [49].

According to research by Cachero-Martínez and Vázquez-Casielles [60], positive emotional experiences directly impact consumer engagement on e-commerce platforms, even without a specific call to purchase. In the online consumer environment, the central role in creating a connection between consumers and brands is the emotional experience [61] referring to the emotions evoked in consumers during the interaction with the platform, product, or content, including satisfaction, enjoyment, interest, curiosity, or emotion, and proven by [62] to have an important influence on customer experience, leading to online purchase behavior, short videos are interactive elements that can evoke viewers' emotions quickly and intensely thanks to the harmonious combination of visual and audio elements [17]. The higher level of personalization in AI-based short video recommendations increases the likelihood that consumers will experience positive emotions and immersion, which in turn drives impulsive or intentional consumption behavior [13]. Therefore, emotional experience is not just a mere emotional response but also a behavioral trigger mechanism in the consumer experience model within the e-commerce environment, particularly concerning AI-personalized short video content.

2.5. Customer Intrinsic Perception

In marketing and consumer behavior, customer intrinsic perception refers to deep, subjective, and unobservable psychological states such as feelings of connection, focus, and presence [53, 63, 64]. These states are triggered when consumers are exposed to personalized digital content [65]. According to the S-O-R theoretical framework, this is the internal response (Organism), which acts as an intermediary between external stimuli (Stimulus) and behavior (Response). Research shows that intrinsic perception greatly influences purchase intentions in short-form video marketing, especially when platforms use AI to customize content for users [21, 66].

Immersive experience is a measurable and tangible manifestation of intrinsic perception, characterized by a state of immersion in which consumers are entirely absorbed in the content, to the point of losing track of time, space, and their behavior [67]. This state often occurs when the content is personalized in real time, highly emotional, and contextually relevant, especially short videos personalized by AI that are highly relevant to consumers [13, 53]. Unlike behaviors such as liking or commenting, immersion is an emotional, cognitive response deeply embedded in the viewer and needs to be captured by observing the viewer's internalization process [68, 69]. This study inherits that approach, viewing immersive

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experience as a core part of internal cognition, contributing to explaining the relationship between personalized video content and consumer behavior [70, 71].

2.6. Information Factors

Customers interact with the content provided by AI-personalized short video recommendations on e-commerce platforms and evaluate the security of their personal data and the accuracy of the information presented in the videos [51]. Privacy concerns, which are defined as the level of anxiety a person has about their personal information being gathered and used without their express consent, arise when they are aware that they are being tracked and that their online activity is being examined [72, 73]. Trust can be severely damaged and the immersive experience disrupted when AI-personalized recommendation systems present content that closely matches users' online activities [74, 75]. This study builds on earlier research by clarifying the negative impact of privacy concerns on consumer purchase intention, even in situations where users have initially responded emotionally favorably to the content.

In addition to privacy issues, the high information quality provided by AI-personalized short video recommendations is essential for preserving customer confidence and assisting with e-commerce purchase decision-making [15]. Short videos require information that is accurate, succinct, and pertinent to the context, whereas traditional advertising formats allow for more elaboration. Completeness, clarity, timeliness, and relevance are essential for high information quality to convert immersive experiences into tangible consumer actions [76]. The immersive state may be disturbed if customers believe that product information is unclear or opaque; on the other hand, when information is reliable and unambiguous, it effectively increases customers' purchase intentions and reinforces positive feelings [15, 77].

2.7. E-commerce Purchase Intentions

In online consumer behavior research, *purchase intention* reflects the degree of readiness to buy and represents the final outcome of the customer's reception and response process following the consumption experience [78]. It is a subjective psychological state that can be measured through surveys and has strong predictive validity for actual consumer behavior [66, 79, 80]. Building on prior studies, *purchase intention* is defined as the level of willingness or intention of a consumer to purchase a specific product [81, 82]. Additionally, purchase intention is a crucial metric for evaluating the efficacy of personalized content, a factor that is essential in determining the modern digital user experience, particularly in the context of AI-personalized short video recommendations on e-commerce platforms [13].

However, recent studies have shown that *purchase intention* in the digital environment is strongly influenced by emotional experiences and the degree of content personalization [65]. Platforms such as TikTok Shop and Shopee Video enable purchase intentions to emerge during interaction, even when consumers have not had a clearly defined need beforehand [15]. When users perceive the content as contextually relevant and emotionally engaging, they are more easily persuaded and willing to act [83, 84]. Therefore, purchase intention is a theoretically important dependent variable and a significant indicator for evaluating the effectiveness of AI-personalized short video recommendation systems on e-commerce platforms.

3. Hypothesis Development

Mehrabian and Russell [32] proposed the S–O–R theoretical model, which is widely used in consumer behavior studies and in the analysis of the impact of short videos on users' shopping experiences and behaviors (e.g. Zhang and Tian [85]). This research paper focuses on e-commerce, particularly examining AI-recommended personalized video content and evaluating the role of three main experiential factors considered as stimuli. When consumers perceive a strong relevance between the video content and their personal needs, interests (relevant), experience creative inspiration (inspirational), or positive emotions (emotional), they tend to be naturally and deeply attracted to that content, manifested as a state of immersion (immersion). This state not only increases the level of involvement in the shopping journey but also contributes to the formation of higher purchase intention (Purchase Intention – Response) within

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the e-commerce environment [27]. With its appeal, concise format, and easy-to-personalize nature according to the needs and interests of viewers, short videos help stimulate positive emotions and maintain consumers' attention throughout the interaction process [86]. When users feel that the content is relevant, engaging, and highly personalized, they tend to immerse themselves in the short video experience, thereby strengthening their trust in the product and increasing their ability to make quick purchase decisions [15, 66]. Therefore, the study suggests that experiential elements derived from AI-personalized short video recommendation content play an important role in driving immersive experiences, ultimately influencing the consumer decision-making process.

3.1. Customer experience with AI-Personalized Short Video Recommendation

According to the Stimulus-Organism-Response (SOR) model [32], AI-recommended videos that align with an individual's needs, interests, or goals serve as an essential psychological stimulus. When consumers are exposed to personalized content (e.g., short videos), the feeling of being "understood" or "personalized" increases their level of attention and concentration [87], leading to an immersive experience, in which they are entirely focused and have a deeply engaged experience with the content provided [53]. Numerous previous studies also indicate that the value of the marketing message or content, equivalent to delivering "relevant experiences", is an important factor in driving focus and immersive experience with the platform (e.g., Joo and Yang [88] and Yan et al. [69]). Therefore, this study proposes the following hypothesis:

H_1: Relevant experience has a positive effect on immersive experience.

Unlike informational or functional stimuli, inspirational experiences tend to elicit deeper emotional responses and have a greater ability to direct behavior. According to Böttger et al. [56], inspirational experiences strongly impact consumers' internal states, leading them into a positive receptive state and encouraging deeper engagement with the message, which is consistent with the SOR theory [32]. In their study of travel and lifestyle, Khoi et al. [59] indicate that inspirational content can make viewers feel like they want to act; from simply viewing, they begin to have a genuine desire to do something. This motivation is often fueled by empathy with the content and the ability to imagine themselves in that environment. When users experience high inspiration, they usually become absorbed entirely by the content, reaching a state of immersion similar to Csikszentmihalyi and Csikszentmihalyi's [36] Flow theory. Therefore, the study proposes the following hypothesis:

H_2: Inspiration experience has a positive effect on immersive experience.

In e-commerce, "emotional experience" refers to positive emotions such as enjoyment, excitement, satisfaction, and favorable responses when users interact with AI-Personalized Short Video Recommendations [62]. Emotional experiences influence the internal psychological state (Organism), particularly the immersive experience, thereby affecting consumer behavior, including both intentional and impulsive purchases [32]. Moreover, Flow theory emphasizes that positive emotional experiences can lead users to heightened concentration and deeper engagement with the content [36, 89]. The higher the level of emotional experience, the greater the immersive experience users tend to have, which strengthens their connection with digital content [90]. Therefore, this study proposes the following hypothesis:

H_3: Emotional experience has positive effects on the Immersive experience

3.2. Customer Intrinsic Engagement

Immersive experience is considered a critical mediating factor between external stimuli and consumers' behavioral responses (Response), specifically regarding e-commerce purchase intentions within the SOR model [32]. The immersive state not only plays a role in maintaining users' continuous attention but also strengthens their belief in the effectiveness and quality of personalized content, thereby creating a foundation to promote the transformation from emotional response to actual consumption behavior [15, 77]. As a result, consumers tend to increase their desire to own the product at that time,

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thereby positively affecting the purchase decision-making process [81, 82]. Therefore, this study proposes the following hypothesis:

H_4: Immersive experience has positive effects on the E-commerce purchase intentions

3.3. Mediator Role of Information Factor

According to the Privacy Calculus, consumers often weigh the benefits of their experiences against the potential risks of sharing personal data [91]. In particular, in an AI environment that personalizes content in real time, users can easily fall into a state of immersion [91, 92]. However, when content is too personalized, consumers may feel they are being monitored or lose control of the information [93]. This perceived risk can diminish initial positive emotions and lead to more conservative purchasing behavior [93, 94]. Empirical studies on platforms such as TikTok Shop or Shopee also show that a segment of sophisticated consumers is increasingly sensitive to the level of AI intervention [53]. Recent studies also show that as the level of privacy concern increases, users will gradually lose trust, causing the connection between immersion and purchase intention to weaken or be interrupted [53]. From there, this study proposes the hypothesis:

H_5: Privacy concern has a negative impact on the relationship between Immersive experience and E-commerce purchase intentions

According to the Information Acceptance Model (IAM), consumers respond positively when information is clear, accurate, and relevant to their needs [95, 96]. In the context of AI-personalized short video recommendation, immersion can create emotional connections. However, when the accompanying information is of high quality, the experience transforms into purchase intention [21, 97]. If the video content is unclear or misleading, users will likely lose trust and exit the state of immersion [98]. Therefore, information quality positively moderates the relationship between immersive experience and e-commerce purchase intentions. From there, this study proposes the hypothesis:

H_6: Information quality has a positive impact on the relationship between Immersive experience and E-commerce purchase intentions.

3.4. Research Model

Based on the hypothesis, the research model used in this research is shown in Figure 1

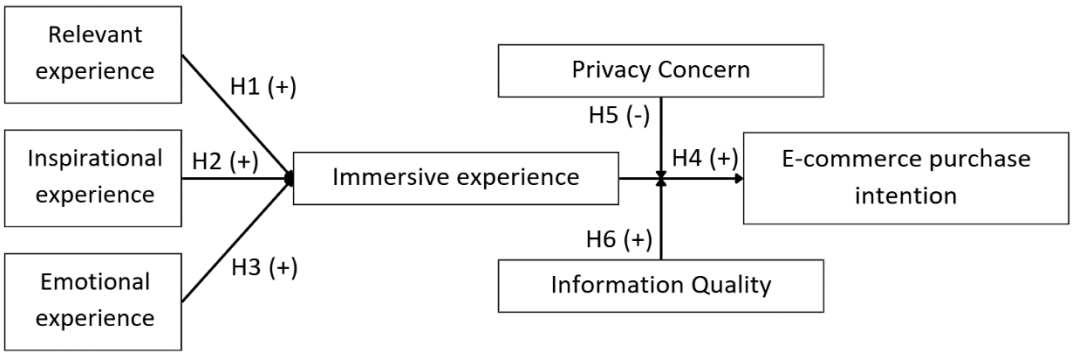

Figure 1.
Research Model.

4. Research Methodology

4.1. Content Validity Assessment for Adopted Scales (Pre-PLS-SEM Phase)

4.1.1. Participants

This study used a sample of knowledgeable individuals with experience close to the research phenomenon. The sample of 15 interviewees had to meet the following criteria: (1) participants had to have at least 3 years of experience shopping online on e-commerce platforms (Shopee, TikTok Shop,

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Lazada); (2) participants had a frequency of using e-commerce platforms >3 times/week in the past 6 months; (3) participants had to understand the concept and have interacted with AI personalized recommendation videos and recognized their impact on the shopping experience.

Table 1.
General Information of Interviewees (n=15).

User	Gender	Age	Year of e-commerce usage (years)	Frequency of using the e-commerce platform (times/week)	Does AI-personalized short video recommendation have an impact on e-commerce purchase intention	Have already purchased through an AI-personalized short video recommendation on an e-commerce platform
N1	female	21	3	4	TRUE	TRUE
N2	female	20	5	4	TRUE	TRUE
N3	female	25	4	5	TRUE	TRUE
N4	female	19	4	6	TRUE	TRUE
N5	male	22	3	4	TRUE	TRUE
N6	female	25	5	4	TRUE	TRUE
N7	female	23	6	6	TRUE	TRUE
N8	male	23	5	7	TRUE	TRUE
N9	female	21	4	4	TRUE	TRUE
N10	male	21	3	3	TRUE	TRUE
N11	female	24	4	4	TRUE	TRUE
N12	female	25	5	5	TRUE	TRUE
N13	female	21	6	4	TRUE	TRUE
N14	male	21	6	6	TRUE	TRUE
N15	male	22	4	3	TRUE	TRUE

4.1.2. Research Design

The study applied the content validity method [99] to evaluate the content relevance of the scale inherited from previous studies in the current context. Instead of using a panel of academic experts, the study selected a group of real users with long-term experience with e-commerce platforms (Shopee, TikTok Shop) and who had experienced the AI-personalized video recommendation feature. These individuals were deemed "context experts" because they had in-depth experience with the research phenomenon. This method was proposed in the study of Hardesty and Bearden [100], in which content validity assessment should include feedback from the target audience to improve practical applicability.

Participants were asked to read and respond to each measurement item, evaluating the content's relevance and comprehensibility, and utilizing the relevance rating scale established by Davis [101] to assess content validity in this research. Context experts utilized the relevance rating scale established by Davis [101] to assess content validity in this research. A panel of context experts assessed the content validity of each measurement item by rating its relevance on a four-point ordinal scale (1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant). Based on the criteria of Davis [101], if the result of the relevance scale is 1 or 2, it can be recorded as 0, or if the result is 3 or 4, it can be considered as 1.

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Table 2.
The relevance rating on the scale of the items.

Scale	Item code	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	Context experts in Agreement	I-CVI
Relevant Experience	RE1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	14	0.93
	RE2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	RE3	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	14	0.93
	RE4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	RE5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
																	S-CVI	0.97
Inspirational Experience	IE1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	13	0.87
	IE2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	IE3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	IE4	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	14	0.93
	IE5	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	14	0.93
																	S-CVI	0.95
Emotional Experience	EE1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	EE2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	EE3	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1	12	0.80
	EE4	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	0.87
	EE5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
																	S-CVI	0.93
Immersive Experience	IE1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	IE2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	IE3	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	12	0.80
	IE4	1	1	0	0	1	1	1	1	1	1	1	1	1	0	1	13	0.87
																	S-CVI	0.92
Privacy Concern	PC1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	14	0.93
	PC2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	PC3	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	14	0.93
	PC4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
																	S-CVI	0.97
Information Quality	IQ1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	13	0.87
	IQ2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	IQ3	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	14	0.93
	IQ4	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	13	0.87
	IQ5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
																	S-CVI	0.93

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E-commerce Purchase Intention	EPI1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	14	0.93
	EPI2	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	14	0.93
	EPI3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	14	0.93
	EPI4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	1.00
	EPI5	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	13	0.87
																	S-CVI	0.93

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The study used two CVI indices [102] to evaluate the scale's content validity, the first index, I-CVI (Item-level Content Validity Index), is the percentage of raters who rated each item as 3 or 4, divided by the total number of raters [99]. The second index, S-CVI (Scale-level Content Validity Index), reflects the percentage of items in the entire scale rated 3 or 4 by all raters [103]. The evaluation showed that the I-CVI above 0.78 and S-CVI/Ave above 0.90 met the criterion requirements [102]; thus, the scale reached the desired level of content validity. This result confirmed that the inherited measurement items were appropriate and ready for subsequent quantitative analysis using PLS-SEM.

4.2. Quantitative Research (SEM)

The study employed a quantitative approach to examine the relationship model between different types of consumer experiences and purchase intentions in the context of AI-personalized short video recommendations on e-commerce platforms. Data were collected through a questionnaire based on specific conceptual definitions and scales, inherited and calibrated from previous studies. The observed variables included: emotional experience, inspirational experience, relevant experience, immersive experience, information quality, privacy concerns, and e-commerce purchase intentions; all measured using a 5-point Likert scale.

The survey subjects were experienced online shoppers in Ho Chi Minh City, representing young users frequently exposed to technology. The study distributed 330 survey forms and collected 317 valid forms (response rate 96.06%). After processing and cleaning the data, the research team analyzed it using SmartPLS 4 and SPSS 22 software, tested reliability (Cronbach's Alpha), and employed the SEM structural model to evaluate the relationships between independent, mediating, and moderating variables in the model.

Table 3.
Sample descriptive statistics.

Factors	Detail	Number	Proportion (%)
	Male	80	25.2
Gender	Female	226	71.3
	Others	11	3.5
Age	< 25	159	50.1
	25 - 40	114	36.0
	> 40	44	13.9
Educational	Upper College/University	281	88.6
	Under College/University	36	11.4
Income per month	< 3 million	142	44.8
	3 - under 5 million	105	33.1
	5 - under 10 million	39	12.3
	10 - under 20 million	22	6.9
	> 20 million	9	2.9

4.3. Measures

4.3.1. Relevant Experience:

In the study conducted by Yin et al. [53], consumers' experience with AI marketing technology was measured through three main dimensions: relevance, inspiration, and insight, in which relevance reflects the degree of match between the recommended content and the actual needs of users. Furthermore, research by De Groot [104] and Shen and Wang [66] highlighted the impact of relevance in AI-personalized content on consumer attitudes and behaviors. It emphasizes that clarity and completeness of information are crucial in maintaining attention and creating a positive experience on short-form video platforms. Building on these foundational studies, this research adapts and develops the Relevant Experience measurements to assess how AI-personalized short video recommendation content aligns with consumers' needs, habits, and personal characteristics, thereby supporting their purchase decision-making process.

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4.3.2. Inspirational Experience

Drawing on the theoretical foundation of consumer inspiration proposed by Thrash and Elliot [105], inspiration is conceptualized as a psychological process involving the reception of stimuli and the motivation to act. Gao et al. [49] examined the mediating role of the inspiration experience in e-commerce contexts, demonstrating that conveyed content can stimulate exploration motivation and influence consumers' impulsive purchase decisions. Similarly, Böttger et al. [56] emphasized inspiration as a temporary motivational state influencing customers' exploratory intentions and behavioral conversion. Building on these studies, the present research adapts and develops the inspirational experience measurements to reflect how consumers perceive inspiration, motivation, and aroused interest when exposed to AI-Personalized Short-video Recommendation content during online shopping.

4.3.3. Emotional Experience

The study by Hosany et al. [106] demonstrates that emotional states significantly influence tourists' satisfaction, intentions to revisit, and purchasing decisions. Also, Meng et al. [107] emphasized the critical role of generating positive emotions in promoting consumer behavior through experiences derived from digital content. Cheng et al. [108] focused on the relationship between consumer emotions and purchasing behavior under environmental influences in physical stores and websites. Building on these studies, the emotional experience measurements in the present research assess the extent to which consumers feel positive emotions such as liking, excitement, joy, or enthusiasm when experiencing AI-personalized short-video recommendation content, which in turn may lead to a desire to own or further explore products in e-commerce environments utilizing short videos.

4.3.4. Immersive Experience

According to the research of Novak et al. [109], the concepts of flow and immersion in digital interactive environments describe the state of immersion that occurs when users feel a loss of the idea of time and space while focusing intensely on digital content. When users perceive that the content has a strong connection to their personal needs and emotions, they may temporarily forget the real world to fully immerse themselves in the digital content experience. Following this direction, Cuny et al. [110] developed specific measurement categories for the immersion variable in a music-driven website environment, leading to revisit intention, and pointed out that immersion is not only a state of concentration but also includes forgetting surrounding factors, such as physical space or actual time. Recently, Yan et al. [69] adapted the scale to a new context with AI-personalized short video recommendations. They found that consumers are attracted to content tailored to their individual needs and interests. Furthermore, the appeal of a short video lies not only in the novelty of its format and context; emotional engagement is a powerful catalyst for immersive experiences.

4.3.5. Privacy Concern

In the foundational study by Malhotra et al. [111], the privacy concern variable was constructed based on the Internet Users' Information Privacy Concerns (IUIPC) theory, with three main components: collection, control, and awareness of secondary use. This scale has been widely applied in many later studies to assess the level of consumer concerns about the collection and use of personal information on the Internet. Based on this foundation, Wang et al. [112] developed and re-tested the scale in the context of short-video platforms, highlighting users' perceived risks when the content recommendation system is too close to personal behavior. Therefore, in this study, the Privacy Concern measurement was constructed by inheriting the original structure of IUIPC and adjusting it to suit the characteristics of content AI-personalized short video recommendation.

4.3.6. Information Quality

Liu et al. [113] developed a scale based on the grounded theory of Wang and Strong [114] on the aspects of information, including content validity, relevancy, quality, presentation quality, and hedonic

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quality in the context of e-commerce platforms. Inheriting the above two studies, this study expanded the scope of information quality assessment by adding factors related to information presentation, such as images, video descriptions, comprehensibility, and attractiveness, especially in the context of AI-personalized short video recommendation. The measurement of information quality of short videos proposed in this study reflects both the objective characteristics of information and the level of reception and perception from users.

4.3.7. E-Commerce Purchase Intention

Yin and Qiu [115] measured consumers' experiences with AI marketing technology on online shopping platforms across three dimensions: accuracy, insight, and interactivity. Lorenzo-Romero et al. [116] adapted the consumer purchase intention construct to assess consumers' decision-making readiness in online shopping environments supported by AI marketing technology. Likewise, Dixit et al. [117] developed a distinct scale to evaluate consumers' willingness to act upon recommendations from an AI-Personalized system. Drawing on these sources, this study adapts measurement items to capture multiple facets of e-commerce purchase intention, including product search tendency, actual purchasing behavior, reliance on AI recommendations, and impulse buying in the context of positive experiences, tailored to e-commerce settings where AI plays the supportive role of product discovery and final purchase decisions.

5. Data Analysis and Results

5.1. Measurement Model Assessment

The study used standard evaluation criteria in PLS-SEM analysis to test the measurement model. Specifically, when the composite reliability coefficient (CR) and Cronbach's alpha coefficient are both higher than 0.7, the scale is deemed reliable [118]. Convergent validity is assessed through the external loading factor (> 0.7) and the average variance extracted (AVE > 0.5). In addition, the Fornell–Larcker method tests discriminant validity, requiring each concept's square root of AVE to be greater than its correlation coefficient with other concepts [119]. The results presented in Table 4 show that all scales meet the criteria of reliability, convergent validity, and discriminant validity, ensuring the suitability of the measurement model for subsequent analyses.

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Table 4.
Results of measurement model assessment.

Scale		Reliability		Convergent validity		Discriminant validity
		Cronbach's alpha	Composite reliability rho_a (CR)	Outer loading	Average variance extracted (AVE)	Fornell–Larcker
		0.7 – 0.99	0.7 – 0.99	> 0.7	> 0.5	(Pass/Fail)
Relevant Experience	RE1	0.955	0.959	0.906	0.848	Pass
	RE2			0.930		
	RE3			0.919		
	RE4			0.927		
	RE5			0.920		
Inspirational Experience	IE1	0.962	0.967	0.924	0.869	Pass
	IE2			0.943		
	IE3			0.941		
	IE4			0.931		
	IE5			0.922		
Emotional Experience	EE1	0.955	0.958	0.919	0.848	Pass
	EE2			0.930		
	EE3			0.920		
	EE4			0.923		
	EE5			0.912		
Immersive experience	IME1	0.858	0.858	0.835	0.701	Pass
	IME2			0.834		
	IME3			0.838		
	IME4			0.843		
Privacy Concern	PC1	0.981	0.984	0.967	0.945	Pass
	PC2			0.977		
	PC3			0.972		
	PC4			0.972		
Information Quality	IQ1	0.985	0.985	0.973	0.944	Pass
	IQ2			0.973		
	IQ3			0.970		
	IQ4			0.974		
	IQ5			0.968		
E-commerce Purchase Intentions	EPI1	0.956	0.956	0.934	0.850	Pass
	EPI2			0.908		
	EPI3			0.925		
	EPI4			0.915		
	EPI5			0.928		

5.2. Structural Model Testing

5.2.1. Multicollinearity test for Independent Variables

The study examined the VIF (Variance Inflation Factor) index between independent variables to ensure that the model is not affected by collinearity. The model is considered collinear when VIF < 3 [120]. The results in Table 5 show that all VIF indexes are very low, ranging from 1.004 to 1.012, indicating that the model is entirely free of collinearity problems and can continue to be used to analyze causal relationships in the study.

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Table 5.
Results of the multicollinearity test for independent variables.

	VIF	Conclusion
RE → IME	1.012	Accepted
IE → IME	1.008	Accepted
EE → IME	1.006	Accepted
IME → EPI	1.004	Accepted
PC x IME → EPI	1.010	Accepted
IQ x IME → EPI	1.008	Accepted

5.2.2. Coefficient of Determination and Predictive Relevance Testing

The model's explanatory and predictive abilities are evaluated using two indices: R^2 (coefficient of determination) and Q^2 (predictive ability). An R^2 value of 0.50 or higher is considered average, while $Q^2 > 0$ indicates that the model has predictive value [121]. Table 6 shows that the R^2 of IME and EPI are 0.618 and 0.545, respectively, indicating good explanatory ability. At the same time, Q^2 reaches 0.534 and 0.786, indicating that the model has strong predictive ability for both dependent variables.

Table 6.
Results of the coefficient of determination and predictive relevance.

	R^2	Q^2
IME	0.618	0.534
EPI	0.545	0.786

5.2.3. Effect Size (f^2) Testing

To assess the influence of factors in the model, the study used the f-squared impact coefficient (f^2) to measure the importance of each structural path. According to Joseph et al. [121], $f^2 < 0.02$ indicates a very small or insignificant impact; from 0.02 to < 0.15 is a small impact; from 0.15 to < 0.35 is a medium impact; and $f^2 \geq 0.35$ is a significant impact.

Table 7.
Results of effect size (f^2).

	f^2
RE → IME	0.488
IE → IME	0.352
EE → IME	0.502
IME → EPI	0.917
PC x IME → EPI	0.038
IQ x IME → EPI	0.046

The results in Table 7 indicate that emotional factors and independent variables such as EE, IE, and RE all significantly influence IME, with f^2 values ranging from 0.352 to 0.502. Additionally, the path from IME to EPI demonstrates a strong influence ($f^2 = 0.917$), confirming the central role of immersive experience in enhancing purchase intention. Conversely, the moderating effects of PC × IME and QI × IME on EPI are limited, with f^2 values of 0.038 and 0.046, respectively, corresponding to a small impact level, which suggests that their moderating role is minimal.

5.2.4. Structural Equation Modeling Hypothesis Testing

The results of the structural model testing presented in Table 8 show that all relationships are statistically significant at $p < 0.05$. Specifically, the paths from RE, IE, and EE to IME all have positive impact coefficients ($\beta = 0.474$; 0.402; 0.480) and p-values = 0.000, confirming the positive role of these three factors in shaping immersive experience. Similarly, the path from IME to EPI also has a strong positive coefficient ($\beta = 0.593$; $p = 0.000$), indicating that immersive experience is an important mediator that promotes purchase intention.

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Table 8.
SEM hypothesis testing.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
RE → IME	0.474	0.475	0.038	12.591	0.000
IE → IME	0.402	0.402	0.038	10.520	0.000
EE → IME	0.480	0.481	0.037	13.114	0.000
IME → EPI	0.593	0.594	0.030	19.572	0.000
PC x IME → EPI	-0.120	-0.118	0.037	3.269	0.001
IQ x IME → EPI	0.137	0.136	0.036	3.821	0.000

Notably, the PC × IME → EPI path has a negative coefficient ($\beta = -0.120$; $p = 0.001$), suggesting that privacy concerns moderate the effect of immersive experiences on purchase intentions. In contrast, the QI × IME → EPI path has a positive coefficient ($\beta = 0.137$; $p = 0.000$), indicating that information quality strengthens this relationship. Both moderating effects are minor in magnitude but statistically significant, implying that information security and information quality continue to influence consumer behavior, especially in the digital environment.

6. Conclusion

Short videos have become an essential tool in today's e-commerce environment, where AI-powered personalization is increasingly used for entertainment and influencing consumer behavior. Customers now demand captivating and highly customized content that aligns with their tastes, and the intense emotional connection generated by personalized videos can significantly influence purchasing decisions. However, cognitive aspects such as information quality, privacy concerns, and emotional appeal determine the effectiveness of AI personalization. In light of this, the study's main conclusions are:

First, the findings indicate that immersion is positively (+) impacted by relevant experience. Users are more likely to view video content as "tailored for them" and pay closer attention when tailored to their past interests and behaviors. Rather than depending exclusively on popular engagement metrics, recommendation algorithms should prioritize content relevance, as this finding suggests that relevance is a key driver of interaction depth.

Second, immersion is positively (+) impacted by inspirational experiences as well. Customers can express interest and feel a deep personal connection to content that inspires, motivates, or offers fresh viewpoints. This element is crucial for creating and maintaining long-term client engagement, even though it has less impact than emotional experience.

Third, immersion is most strongly influenced by emotional experience. Customers are more likely to enter deep concentration when they experience emotional responses such as empathy, joy, or surprise. This emphasizes how important emotions are in drawing in viewers and motivating them to interact with content actively. The results also show that one of the best strategies to improve engagement and influence consumer behavior is to evoke the right feelings.

Fourth, the results of the study demonstrate that purchase intention is significantly influenced by immersive experience. Customers who are truly engrossed in the content are more likely to actively respond by exploring the product or making a purchase decision and remembering the information more thoroughly. This acts as a vital link between feelings, thoughts, and behavior. Therefore, companies should invest in producing content with depth and the capacity to hold attention to increase conversion rates, rather than concentrating only on view counts or fleeting interactions.

Fifth, it has been demonstrated that information quality, in its moderating role, strengthens the impact of immersion on purchase intention. Users are more likely to move from an immersive emotional state to tangible purchasing actions when they believe product information, such as thorough descriptions, origin, and return policies, is precise, reliable, and comprehensive. On the other hand, ambiguous or opaque content may disrupt the experience, rendering the initial feelings of satisfaction

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insufficient to motivate buying. This emphasizes how crucial it is to ensure every video contains high-quality content to optimize the conversion effect from content to action.

Sixth, the findings show that the relationship between immersion and purchase intention is negatively moderated by privacy concern. No matter how engaging the content is, customers will likely be hesitant to buy if they believe their privacy has been infringed upon or their personal information is being overused. The fact that users are becoming more wary of data collection in the digital age, especially when AI-driven personalization becomes unduly intrusive, is reflected in this finding. Therefore, platforms need to set up clear procedures and give users control over their data to maintain positive behavioral outcomes and build trust.

This study concludes by showing that modern consumers evaluate the reliability of the information and the platforms' handling of their data critically, in addition to reacting to engaging content. Although AI-personalized recommendations have much promise, information management must also meet strict requirements for accountability and transparency. These results further elucidate the role of technological factors and user experience in the current context of digital consumption, and they are consistent with previous studies like Cheng et al. [12], Hu et al. [77] and Liu et al. [113]. Additionally, recent studies highlight the need to balance trustworthy content, customer experience, and an ethical environment for data collection and use to maximize the efficacy of AI recommendations.

7. Implication

7.1. Theoretical Implication

First, the study clarifies the crucial mediating role of immersive experience variables in the relationship between perceived user experience factors, including relevant experience, inspirational experience, and emotional experience, and e-commerce purchase intentions in the context of AI-personalized short video recommendation. In addition, the study also confirms that immersive experience states are not only the result of immediate reactions to engaging content but also act as a mediating mechanism in the transformation process from perception to specific consumer purchase intention.

Second, the inclusion of two moderator variables, Privacy Concern and Information Quality, has expanded the current theoretical framework on the scope of content personalization and consumer behavior, showing that the effectiveness of AI-personalization systems is not only based on the level of emotional appeal but also depends on consumers' cognitive and defensive psychological factors. These findings contribute to strengthening and expanding the role of underlying theories such as SOR Theory and Flow Theory, helping to provide an integrated research model that can be widely applied in the current digital consumption context.

Lastly, the study enriches the theoretical foundation for utilizing AI-personalized short video recommendation, and thus emphasizes the importance of balancing perceived experiences, information quality, and consumer trust. This represents a significant advancement in the study of consumer behavior in the modern e-commerce environment, where technology and user psychology must be understood as complementary to optimize marketing effectiveness.

7.2. Managerial Implication

First, the study suggests that e-commerce platforms should prioritize optimizing content relevant for users through AI personalized systems in the direction of enhancing emotional experiences and inspirational experiences. Instead of relying solely on standard engagement metrics, algorithms can analyze individual behaviors and preferences through their actions on the platform to provide more deeply personalized content. This helps businesses improve their ability to connect emotionally and convert behaviors, thereby helping consumers proactively receive information and increase their engagement with the brand.

Second, to enhance the effectiveness of immersive experiences, businesses should focus on investing in content design and platform interfaces in a synchronized manner to bring consistency. This helps maintain focus and facilitates consumers' perception of content more deeply. Likewise, the continuous

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collection and analysis of real-time interaction behavior allow the system to adjust the recommended content flexibly and promptly. As a result, the rate of users receiving appropriate content is increasing, helping to increase click-through rates and satisfaction with the experience and promoting purchasing behavior.

Third, discovering the role of information quality and privacy concerns variables in regulating consumer behavior shows the importance of ensuring information quality and protecting consumer privacy while providing personalized content. Platforms must invest more in delivering transparent, trustworthy, and structured information in video content. Simultaneously, strictly comply with legal regulations related to data collection, processing, and use, commit to transparency in collecting information, and provide explicit consent instructions. Ensuring the above factors helps increase consumer trust and acceptance of technology, thereby driving click-through intent and online shopping behavior.

8. Limitation

There are still some restrictions on this study. First of all, it ignores long-term elements like customer retention or brand loyalty in favor of concentrating solely on assessing the immediate impact, namely the customer's purchase intention. Second, the quantitative data were mainly gathered via self-reported surveys, which could be biased because of participants' propensity to give socially acceptable answers or inability to recall their actual actions precisely. The classification of particular AI-personalized algorithms or variations in short video formats across various product categories could subtly influence consumer perception and behavior.

Future studies should broaden the survey sample to include a wider range of consumer groups for a more comprehensive understanding of the effects of AI-personalized short video content in e-commerce. The effectiveness of AI-personalized short video content within specific domains may also be determined by grouping participants by product category, such as fashion, cosmetics, or household goods. To further enhance the objectivity of the results, future research should utilize behavioral tracking tools on e-commerce platforms, such as conversion rates, scrolling behavior, and video view duration, instead of relying solely on self-reported survey data. Finally, by employing longitudinal studies or in-depth interviews to monitor changes in consumer perceptions and behaviors following repeated exposure to personalized content, future research could expand the model to investigate the relationship between personalized experiences and long-term factors. This approach would better evaluate AI's long-term efficacy in communication tactics on e-commerce platforms.

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Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

[1] X. Chen and H. Deng, "Research on personalized recommendation methods for online video learning resources," *Applied Sciences*, vol. 11, no. 2, p. 804, 2021. https://doi.org/10.3390/app11020804

[2] T. Davenport, A. Guha, D. Grewal, and T. Bressgott, "How artificial intelligence will change the future of marketing," *Journal of the Academy of Marketing Science*, vol. 48, pp. 24-42, 2020. https://doi.org/10.1007/s11747-019-00696-0

[3] M. Adam, M. Wessel, and A. Benlian, "AI-based chatbots in customer service and their effects on user compliance," *Electronic Markets*, vol. 31, pp. 427-445, 2021/06/01 2021. https://doi.org/10.1007/s12525-020-00414-7

[4] M.-H. Huang and R. T. Rust, "A strategic framework for artificial intelligence in marketing," *Journal of the Academy of Marketing Science*, vol. 49, pp. 30-50, 2021. https://doi.org/10.1007/s11747-020-00749-9

[5] P. Singh and V. Singh, "The power of AI: enhancing customer loyalty through satisfaction and efficiency," *Cogent Business & Management*, vol. 11, no. 1, p. 2326107, 2024.

[6] S. R. Adawiyah, B. Purwandari, I. Eitiveni, and E. H. Purwaningsih, "The influence of AI and AR technology in personalized recommendations on customer usage intention: A case study of cosmetic products on shopee," *Applied Sciences*, vol. 14, no. 13, p. 5786, 2024. https://doi.org/10.3390/app14135786

[7] R. E. Bawack, S. F. Wamba, K. D. A. Carillo, and S. Akter, "Artificial intelligence in E-Commerce: A bibliometric study and literature review," *Electronic Markets*, vol. 32, pp. 297-338, 2022. https://doi.org/10.1007/s12525-022-00537-z

[8] A. Greenstein-Messica and L. Rokach, "Personal price aware multi-seller recommender system: Evidence from eBay," *Knowledge-Based Systems*, vol. 150, pp. 14-26, 2018.

[9] D.-N. Nguyen, V.-H. Nguyen, T. Trinh, T. Ho, and H.-S. Le, "A personalized product recommendation model in e-commerce based on retrieval strategy," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 10, no. 2, p. 100303, 2024. https://doi.org/10.1016/j.joitmc.2024.100303

[10] Y. Zhu, H. Shi, H. B. A. Hashmi, and Q. Wu, "Bridging artificial intelligence-based services and online impulse buying in E-retailing context," *Electronic Commerce Research and Applications*, vol. 62, p. 101333, 2023. https://doi.org/10.1016/j.elerap.2023.101333

[11] R. Chaturvedi, S. Verma, R. Das, and Y. K. Dwivedi, "Social companionship with artificial intelligence: Recent trends and future avenues," *Technological Forecasting and Social Change*, vol. 193, p. 122634, 2023.

[12] Z. Cheng, B. Shao, and Y. Zhang, "Effect of product presentation videos on consumers' purchase intention: The role of perceived diagnosticity, mental imagery, and product rating," *Frontiers in Psychology*, vol. 13, p. 812579, 2022.

[13] Q. Liang and J. Liu, "Research on the influence of short video AI personalized recommendation on consumers' impulsive buying behavior—moderating effects based on algorithmic attitudes," in *Proceedings of the 2024 7th International Conference on Information Management and Management Science*, 2024, pp. 45-50.

[14] T. T. A. Ngo, H. L. T. Nguyen, H. P. Nguyen, H. T. A. Mai, T. H. T. Mai, and P. L. Hoang, "A comprehensive study on factors influencing online impulse buying behavior: Evidence from Shopee video platform," *Heliyon*, vol. 10, no. 15, p. e35743, 2024. https://doi.org/10.1016/j.heliyon.2024.e35743

[15] C. Luo, N. A. M. Hasan, A. M. t. Zamri bin Ahmad, and G. Lei, "Influence of short video content on consumers purchase intentions on social media platforms with trust as a mediator," *Scientific Reports*, vol. 15, no. 1, p. 16605, 2025.

[16] P. Gao, H. Jiang, Y. Xie, and Y. Cheng, "The triggering mechanism of Short Video Customer Inspiration–qualitative analysis based on the repertory grid technique," *Frontiers in Psychology*, vol. 12, p. 791567, 2021.

[17] Q. Yang, Y. Wang, Q. Wang, Y. Jiang, and J. Li, "Harmonizing sight and sound: The impact of auditory emotional arousal, visual variation, and their congruence on consumer engagement in short video marketing," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 20, no. 2, p. 69, 2025.

[18] V. Kumar, A. R. Ashraf, and W. Nadeem, "AI-powered marketing: What, where, and how?," *International Journal of Information Management*, vol. 77, p. 102783, 2024.

[19] S. Zhang *et al.*, "Eeg-svrec: An eeg dataset with user multidimensional affective engagement labels in short video recommendation," in *Proceedings of the 47th International ACM SIGIR Conference on Research and Development in Information Retrieval*, 2024, pp. 698-708.

[20] P. Li, M. Que, Z. Jiang, Y. Hu, and A. Tuzhilin, "PURS: personalized unexpected recommender system for improving user satisfaction," in *Proceedings of the 14th ACM Conference on Recommender Systems*, 2020, pp. 279-288.

[21] T. Hewei, "Factors affecting clothing purchase intention in mobile short video app: Mediation of perceived value and immersion experience," *Plos One*, vol. 17, no. 9, p. e0273968, 2022.

[22] A. Ruangkanjanases, A. Khan, O. Sivarak, U. Rahardja, and S.-C. Chen, "Modeling the consumers' flow experience in e-commerce: The integration of ecm and tam with the antecedents of flow experience," *Sage Open*, vol. 14, no. 2, p. 21582440241258595, 2024. https://doi.org/10.1177/21582440241258595

[23] J. J. Wijaya, M. Setyo, K. William, and Y. U. Chandra, "The effect of information quality on product reviews in the short video platform for viewers purchase intention," in *Proceedings of the 2022 International Conference on Computer, Control, Informatics and Its Applications*, 2022.

[24] M. Ye and T. C. Ching, "Research and application flow-based live-streaming shopping towards compulsive buying," *Annals of Operations Research*, pp. 1-29, 2023. https://doi.org/10.1007/s10479-023-05681-z

Edelweiss Applied Science and Technology
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Vol. 9, No. 10: 721-745, 2025
DOI: 10.55214/2576-8484.v9i10.10526
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[25] E. Aguirre, D. Mahr, D. Grewal, K. De Ruyter, and M. Wetzels, "Unraveling the personalization paradox: The effect of information collection and trust-building strategies on online advertisement effectiveness," *Journal of Retailing*, vol. 91, no. 1, pp. 34-49, 2015. https://doi.org/10.1016/j.jretai.2014.09.005
[26] J. Cloarec, "The personalization–privacy paradox in the attention economy," *Technological Forecasting and Social Change*, vol. 161, p. 120299, 2020. https://doi.org/10.1016/j.techfore.2020.120299
[27] J. Y. Shiu, S. T. Liao, and S.-Y. Tzeng, "How does online streaming reform e-commerce? An empirical assessment of immersive experience and social interaction in China," *Humanities and Social Sciences Communications*, vol. 10, p. 224, 2023. https://doi.org/10.1057/s41599-023-01731-w
[28] A. Ambika, H. Shin, and V. Jain, "Immersive technologies and consumer behavior: A systematic review of two decades of research," *Australian Journal of Management*, vol. 50, no. 1, pp. 55-79, 2025. https://doi.org/10.1177/03128962231181429
[29] H. Hallikainen, M. Luongo, A. Dhir, and T. Laukkanen, "Consequences of personalized product recommendations and price promotions in online grocery shopping," *Journal of Retailing and Consumer Services*, vol. 69, p. 103088, 2022. https://doi.org/10.1016/j.jretconser.2022.103088
[30] N. Hassan, M. Abdelraouf, and D. El-Shihy, "The moderating role of personalized recommendations in the trust–satisfaction–loyalty relationship: An empirical study of AI-driven e-commerce," *Future Business Journal*, vol. 11, no. 1, p. 66, 2025.
[31] M. A. Raji, H. B. Olodo, T. T. Oke, W. A. Addy, O. C. Ofodile, and A. T. Oyewole, "E-commerce and consumer behavior: A review of AI-powered personalization and market trends," *GSC Advanced Research and Reviews*, vol. 18, no. 3, pp. 066-077, 2024.
[32] A. Mehrabian and J. A. Russell, *An approach to environmental psychology*. Cambridge, MA: The MIT Press, 1974.
[33] B. Zhu, S. Kowatthanakul, and P. Satanasavapak, "Generation Y consumer online repurchase intention in Bangkok: Based on Stimulus-Organism-Response (SOR) model," *International Journal of Retail & Distribution Management*, vol. 48, no. 1, pp. 53-69, 2020.
[34] J. Guo, Y. Li, Y. Xu, and K. Zeng, "How live streaming features impact consumers' purchase intention in the context of cross-border E-commerce? A research based on SOR theory," *Frontiers in Psychology*, vol. 12, p. 767876, 2021.
[35] M. Li, Q. Wang, and Y. Cao, "Understanding consumer online impulse buying in live streaming e-commerce: A stimulus-organism-response framework," *International Journal of Environmental Research and Public Health*, vol. 19, no. 7, p. 4378, 2022. https://doi.org/10.3390/ijerph19074378
[36] M. Csikszentmihalyi and M. Csikzentmihaly, *Flow: The psychology of optimal experience*. New York: Harper & Row, 1990.
[37] B. Y. Ozkara, M. Ozmen, and J. W. Kim, "Examining the effect of flow experience on online purchase: A novel approach to the flow theory based on hedonic and utilitarian value," *Journal of Retailing and Consumer Services*, vol. 37, pp. 119-131, 2017. https://doi.org/10.1016/j.jretconser.2017.04.001
[38] L. Wu, M.-L. Chiu, and K.-W. Chen, "Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues," *International Journal of Information Management*, vol. 52, p. 102099, 2020.
[39] C. Adolphs and A. Winkelmann, "Personalization research in e-commerce-A state of the art review (2000-2008)," *Journal of Electronic Commerce Research*, vol. 11, no. 4, p. 326, 2010.
[40] C.-M. Karat, J. Blom, and J. Karat, "Designing personalized user experiences for eCommerce: theory, methods, and research," in *CHI'03 Extended Abstracts on Human Factors in Computing Systems*, 2003, pp. 1040-1041.
[41] Z. Xia, A. Sun, J. Xu, Y. Peng, R. Ma, and M. Cheng, "Contemporary recommendation systems on big data and their applications: A survey," *IEEE Access*, vol. 12, pp. 196914 - 196928, 2024. https://doi.org/10.1109/ACCESS.2024.3517492
[42] M. Zanker, L. Rook, and D. Jannach, "Measuring the impact of online personalisation: Past, present and future," *International Journal of Human-Computer Studies*, vol. 131, pp. 160-168, 2019.
[43] X. Bai, Y. Li, Y. Cheng, W. Yang, Q. Chen, and H. Li, "Cross-domain product representation learning for rich-content e-commerce," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2023, pp. 5697-5706.
[44] Y. Guan, Q. Wei, and G. Chen, "Deep learning based personalized recommendation with multi-view information integration," *Decision Support Systems*, vol. 118, pp. 58-69, 2019. https://doi.org/10.1016/j.dss.2019.01.003
[45] C. Lufei, "The factors influencing consumers'purchase intentions on short video e-commerce plaforms-a case study of Tiktok shop," Independent Study, Master of Business Administration, International Business Management. Bangkok: Siam University, 2024.
[46] A. Fitriana and D. Kusmayadi, "The effect of utilizing the shopee e-commerce platform on fashion buying interest: Case study shopee video Deefcraft SME," *Jurnal Ekonomi, Bisnis & Entrepreneurship (e-Journal)*, vol. 18, no. 2, pp. 713-732, 2024. https://doi.org/10.55208/3dybe025
[47] J. Feng, "Review of research on E-commerce short videos," *Frontiers in Humanities and Social Sciences*, vol. 4, no. 4, pp. 235-242, 2024.
[48] W. J. Liu, "Research on the relationship between recommenda-tion mechanism of short video platform and users' purchase intention under the background of interest e-commerce," in *2022 2nd International Conference on Economic Development and Business Culture (ICEDBC 2022)*, 2022: Atlantis Press, pp. 1477-1482.

Edelweiss Applied Science and Technology
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Vol. 9, No. 10: 721-745, 2025
DOI: 10.55214/2576-8484.v9i10.10526
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[49] P. Gao, Y. Zeng, and Y. Cheng, "The formation mechanism of impulse buying in short video scenario: Perspectives from presence and customer inspiration," *Frontiers in Psychology*, vol. 13, p. 870635, 2022. https://doi.org/10.3389/fpsyg.2022.870635
[50] K. N. Lemon and P. C. Verhoef, "Understanding customer experience throughout the customer journey," *Journal of Marketing*, vol. 80, no. 6, pp. 69-96, 2016.
[51] Q. Xiao, W. Huang, L. Qu, and X. Li, "The impact of multimodal information features of short sales videos on consumer engagement behavior: A multi-method approach," *Journal of Retailing and Consumer Services*, vol. 82, p. 104136, 2025.
[52] N. K. Hoi and L. K. Yin, "Short videos, big decisions: A preliminary study of tik tok's role in e-commerce consumer behaviour," *European Journal of Business and Management Research*, vol. 8, no. 3, pp. 72-81, 2023. https://doi.org/10.24018/ejbmr.2023.8.3.1951
[53] J. Yin, X. Qiu, and Y. Wang, "The impact of AI-personalized recommendations on clicking intentions: Evidence from Chinese e-commerce," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 20, no. 1, p. 21, 2025.
[54] S. Lubos, A. Felfernig, and M. Tautschnig, "An overview of video recommender systems: State-of-the-art and research issues," *Frontiers in Big Data*, vol. 6, p. 1281614, 2023. https://doi.org/10.3389/fdata.2023.1281614
[55] W. Bao *et al.*, "Beyond relevance: Improving user engagement by personalization for short-video search," *arXiv preprint arXiv:2409.11281*, 2024.
[56] T. Böttger, T. Rudolph, H. Evanschitzky, and T. Pfrang, "Customer inspiration: Conceptualization, scale development, and validation," *Journal of Marketing*, vol. 81, no. 6, pp. 116-131, 2017.
[57] T. M. Thrash and A. J. Elliot, "Inspiration: core characteristics, component processes, antecedents, and function," *Journal of Personality and Social Psychology*, vol. 87, no. 6, p. 957, 2004.
[58] T. Pfrang, T. Rudolph, and T. Böttger, "Inspire to delight: The effects of customer inspiration on consumers' purchase decisions," in *Proceedings of the 43rd Annual Conference of the European Marketing Academy (EMAC 2014), Valencia, Spain, June 3–6, 2014. European Marketing Academy*, 2014.
[59] N. H. Khoi, N. D. Phong, and A. N.-H. Le, "Customer inspiration in a tourism context: An investigation of driving and moderating factors," *Current Issues in Tourism*, vol. 23, no. 21, pp. 2699-2715, 2020. https://doi.org/10.1080/13683500.2019.1666092
[60] S. Cachero-Martínez and R. Vázquez-Casielles, "Building consumer loyalty through e-shopping experiences: The mediating role of emotions," *Journal of Retailing and Consumer Services*, vol. 60, p. 102481, 2021. https://doi.org/10.1016/j.jretconser.2021.102481
[61] R. Zhou and L. Tong, "A study on the influencing factors of consumers' purchase intention during livestreaming e-commerce: the mediating effect of emotion," *Frontiers in Psychology*, vol. 13, p. 903023, 2022. https://doi.org/10.3389/fpsyg.2022.903023
[62] A. Gerou, "Examining the mediating effect of customer experience on the emotions–behavioral intentions relationship: Evidence from the passenger transport sector," *Behavioral Sciences*, vol. 12, no. 11, p. 419, 2022.
[63] M. Y. Limbongan, D. P. E. Saerang, and P. A. Mekel, "Consumer perception, brand experience and purchase intention of Chinese mobile phones in Manado," *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, vol. 2, no. 1, pp. 747–755, 2014.
[64] J. R. Searle and J. R. Searle, *Perception. Mind A Brief Introduction*. Oxford, UK: Oxford University Press, 2004.
[65] H. Zhan, "A study on personalized digital marketing content creation based on consumer psychoanalysis," *Applied Mathematics and Nonlinear Sciences*, vol. 9, no. 1, p. 2969, 2024. https://doi.org/10.2478/amns-2024-2969
[66] X. Shen and J. Wang, "How short video marketing influences purchase intention in social commerce: The role of users' persona perception, shared values, and individual-level factors," *Humanities and Social Sciences Communications*, vol. 11, p. 290, 2024. https://doi.org/10.1057/s41599-024-02808-w
[67] B. G. Witmer and M. J. Singer, "Measuring presence in virtual environments: A presence questionnaire," *Presence: Teleoperators and Virtual Environments*, vol. 7, no. 3, pp. 225-240, 1998. https://doi.org/10.1162/105474698565686
[68] H. Hammond, M. Armstrong, G. A. Thomas, and I. D. Gilchrist, "Audience immersion: Validating attentional and physiological measures against self-report," *Cognitive Research: Principles and Implications*, vol. 8, no. 1, p. 22, 2023.
[69] Y. Yan, Y. He, and L. Li, "Why time flies? The role of immersion in short video usage behavior," *Frontiers in Psychology*, vol. 14, p. 1127210, 2023. https://doi.org/10.3389/fpsyg.2023.1127210
[70] W. Jiang and H.-L. Chen, "Can short videos work? The effects of use and gratification and social presence on purchase intention: Examining the mediating role of digital dependency," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 20, no. 1, p. 5, 2024.
[71] V. K. Nhan, H. T. Dung, and N. T. Vu, "A conceptual model for studying the immersive mobile augmented reality application-enhanced experience," *Heliyon*, vol. 8, no. 8, p. e10141, 2022. https://doi.org/10.1016/j.heliyon.2022.e10141
[72] S. Hong and S. K. Oh, "Why people don't use Facebook anymore? An investigation into the relationship between the Big Five personality traits and the motivation to leave Facebook," *Frontiers in Psychology*, vol. 11, p. 1497, 2020.
[73] H. J. Smith, S. J. Milberg, and S. J. Burke, "Information privacy: Measuring individuals' concerns about organizational practices," *MIS Quarterly*, vol. 20, no. 2, pp. 167-196, 1996. https://doi.org/10.2307/249477

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 10: 721-745, 2025
DOI: 10.55214/2576-8484.v9i10.10526
© 2025 by the authors; licensee Learning Gate

[74] A. Alkis and T. Kose, "Privacy concerns in consumer E-commerce activities and response to social media advertising: Empirical evidence from Europe," *Computers in Human Behavior*, vol. 137, p. 107412, 2022.
[75] V. Wiard, B. Lits, and M. Dufrasne, ""The spy who loved me": A qualitative exploratory analysis of the relationship between youth and algorithms," *Frontiers in Communication*, vol. 7, p. 778273, 2022. https://doi.org/10.3389/fcomm.2022.778273
[76] Y. Shen, "The impact of algorithmic recommendation quality on user purchase intentions from a trust perspective——a case study of Douyin e-commerce," in *5th International Conference on Economic Management and Big Data Application (ICEMBDA 2024)*, 2024: Atlantis Press.
[77] T.-L. Hu, C.-M. Chao, W.-K. Hsieh, and C.-H. Lin, "The impact mechanism of video maturity and content empowerment on purchase intentions: A case study of agricultural tourism in Taiwan," *Sustainability*, vol. 17, no. 7, p. 3195, 2025.
[78] M. Tilahun, E. Berhan, and G. Tesfaye, "Determinants of consumers' purchase intention on digital business model platform: evidence from Ethiopia using partial least square structural equation model (PLS-SEM) technique," *Journal of Innovation and Entrepreneurship*, vol. 12, no. 1, p. 50, 2023.
[79] D. Febrianti and A. Hidayat, "Effect of information quality, social psychological distance, and trust on consumer purchase intentions on social commerce Shopee," *Archives of Business Research*, vol. 10, no. 1, pp. 158-172, 2022.
[80] N. Peña-García, I. Gil-Saura, A. Rodríguez-Orejuela, and J. R. Siqueira-Junior, "Purchase intention and purchase behavior online: A cross-cultural approach," *Heliyon*, vol. 6, no. 6, p. e04284, 2020.
[81] F. Gao and C. Peng, "Behavioral pattern identification of e-commerce consumers' purchase intention in big data environment," *Applied Mathematics and Nonlinear Sciences*, vol. 9, no. 1, 2024. https://doi.org/10.2478/amns-2024-3233
[82] V. Morwitz, "Consumers' purchase intentions and their behavior," *Foundations and Trends® in Marketing*, vol. 7, no. 3, pp. 181-230, 2014. http://dx.doi.org/10.1561/1700000036
[83] T. T. A. Ngo, P. Quach, T. V. Nguyen, A. D. Nguyen, and T. M. N. Nguyen, "Short video marketing factors influencing the purchase intention of Generation Z in Vietnam," *Innovative Marketing*, vol. 19, no. 3, p. 34, 2023.
[84] I. O. Pappas, P. E. Kourouthanassis, M. N. Giannakos, and V. Chrissikopoulos, "Shiny happy people buying: The role of emotions on personalized e-shopping," *Electronic Markets*, vol. 24, no. 3, pp. 193-206, 2014.
[85] R. Zhang and Y. Tian, "The impact of short video marketing on the consumer willingness to consume immersive experience projects," *Frontiers*, vol. 5, no. 5, pp. 120-132, 2024.
[86] L. Xiao, X. Li, and Y. Zhang, "Exploring the factors influencing consumer engagement behavior regarding short-form video advertising: A big data perspective," *Journal of Retailing and Consumer Services*, vol. 70, p. 103170, 2023.
[87] A. Bleier, A. De Keyser, and K. Verleye, "Customer engagement through personalization and customization. Customer engagement marketing." Cham, Switzerland: Springer, 2017, pp. 75-94.
[88] E. Joo and J. Yang, "How perceived interactivity affects consumers' shopping intentions in live stream commerce: Roles of immersion, user gratification and product involvement," *Journal of Research in Interactive Marketing*, vol. 17, no. 5, pp. 754-772, 2023. https://doi.org/10.1108/JRIM-02-2022-0037
[89] J.-É. Pelet, S. Ettis, and K. Cowart, "Optimal experience of flow enhanced by telepresence: Evidence from social media use," *Information & Management*, vol. 54, no. 1, pp. 115-128, 2017. https://doi.org/10.1016/j.im.2016.05.001
[90] H. Yang, S. Zhang, Z. Diao, and D. Sun, "What motivates users to continue using current short video applications? A dual-path examination of flow experience and cognitive lock-in," *Telematics and Informatics*, vol. 85, p. 102050, 2023.
[91] Y. Meier and N. C. Krämer, "The privacy calculus revisited: An empirical investigation of online privacy decisions on between-and within-person levels," *Communication Research*, vol. 51, no. 2, pp. 178-202, 2024. https://doi.org/10.1177/00936502221102101
[92] T. Dinev and P. Hart, "An extended privacy calculus model for e-commerce transactions," *Information Systems Research*, vol. 17, no. 1, pp. 61-80, 2006. https://doi.org/10.1287/isre.1060.0080
[93] Y. Wang, J. Zhu, R. Liu, and Y. Jiang, "Enhancing recommendation acceptance: Resolving the personalization–privacy paradox in recommender systems: A privacy calculus perspective," *International Journal of Information Management*, vol. 76, p. 102755, 2024.
[94] S. Glover and I. Benbasat, "A comprehensive model of perceived risk of e-commerce transactions," *International Journal of Electronic Commerce*, vol. 15, no. 2, pp. 47-78, 2010. https://doi.org/10.2753/JEC1086-4415150202
[95] H.-M. Lee, J.-W. Kang, and Y. Namkung, "Instagram users' information acceptance process for food-content," *Sustainability*, vol. 13, no. 5, p. 2638, 2021. https://doi.org/10.3390/su13052638
[96] S. W. Sussman and W. S. Siegal, "Informational influence in organizations: An integrated approach to knowledge adoption," *Information Systems Research*, vol. 14, no. 1, pp. 47-65, 2003.
[97] S. Yu, H. Zhang, Q. Zheng, D. Chu, T. Chen, and X. Chen, "Consumer behavior based on the SOR model: How do short video advertisements affect furniture consumers' purchase intentions?," *BioResources*, vol. 19, no. 2, pp. 2639-2659, 2024. https://doi.org/10.15376/biores.19.2.2639-2659
[98] J. Yin, X. Qiu, and Y. Wang, "Research on the influence path of the consumer insightful experience of AI personalized recommendation on online purchase intention," presented at the Proceedings of the 2024 International Conference on Economic Data Analytics and Artificial Intelligence, 2025.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 9, No. 10: 721-745, 2025
DOI: 10.55214/2576-8484.v9i10.10526
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[99] D. F. Polit and C. T. Beck, "The content validity index: are you sure you know what's being reported? Critique and recommendations," *Research in Nursing & Health*, vol. 29, no. 5, pp. 489-497, 2006.
[100] D. M. Hardesty and W. O. Bearden, "The use of expert judges in scale development: Implications for improving face validity of measures of unobservable constructs," *Journal of business research*, vol. 57, no. 2, pp. 98-107, 2004. https://doi.org/10.1016/S0148-2963(01)00295-8
[101] L. L. Davis, "Instrument review: Getting the most from a panel of experts," *Applied Nursing Research*, vol. 5, no. 4, pp. 194-197, 1992.
[102] M. R. Lynn, "Determination and quantification of content validity," *Nursing research*, vol. 35, no. 6, pp. 382-386, 1986.
[103] D. F. Polit, C. T. Beck, and S. V. Owen, "Is the CVI an acceptable indicator of content validity? Appraisal and recommendations," *Research in Nursing & Health*, vol. 30, no. 4, pp. 459-467, 2007. https://doi.org/10.1002/nur.20199
[104] J. I. M. De Groot, "The personalization paradox in Facebook advertising: The mediating effect of relevance on the personalization–brand attitude relationship and the moderating effect of intrusiveness," *Journal of Interactive Advertising*, vol. 22, no. 1, pp. 57-74, 2022.
[105] T. M. Thrash and A. J. Elliot, "Inspiration as a psychological construct," *Journal of Personality and Social Psychology*, vol. 84, no. 4, pp. 871-889, 2003. https://doi.org/10.1037/0022-3514.84.4.871
[106] S. Hosany, G. Prayag, S. Deesilatham, S. Cauševic, and K. Odeh, "Measuring tourists' emotional experiences: Further validation of the destination emotion scale," *Journal of Travel Research*, vol. 54, no. 4, pp. 482-495, 2015. https://doi.org/10.1177/0047287514522878
[107] L. M. Meng, S. Duan, Y. Zhao, K. Lü, and S. Chen, "The impact of online celebrity in livestreaming E-commerce on purchase intention from the perspective of emotional contagion," *Journal of Retailing and Consumer Services*, vol. 63, p. 102733, 2021.
[108] F.-F. Cheng, C.-S. Wu, and D. C. Yen, "The effect of online store atmosphere on consumer's emotional responses – an experimental study of music and colour," *Behaviour & Information Technology*, vol. 28, no. 4, pp. 323-334, 2009. https://doi.org/10.1080/01449290701770574
[109] T. P. Novak, D. L. Hoffman, and Y.-F. Yung, "Measuring the customer experience in online environments: A structural modeling approach," *Marketing Science*, vol. 19, no. 1, pp. 22-42, 2000.
[110] C. Cuny, M. Fornerino, and A. Helme-Guizon, "Can music improve e-behavioral intentions by enhancing consumers' immersion and experience?," *Information & Management*, vol. 52, no. 8, pp. 1025-1034, 2015.
[111] N. K. Malhotra, S. S. Kim, and J. Agarwal, "Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal model," *Information Systems Research*, vol. 15, no. 4, pp. 336-355, 2004. https://doi.org/10.1287/isre.1040.0032
[112] Q. Wang, W. Zhang, and H. Wang, "Privacy concerns toward short-form video platforms: Scale development and validation," *Frontiers in Psychology*, vol. 13, p. 954964, 2022. https://doi.org/10.3389/fpsyg.2022.954964
[113] C.-T. Liu, Y. M. Guo, and J.-L. Hsu, "Creating and validating an information quality scale for e-commerce platforms," *Journal of Electronic Commerce in Organizations*, vol. 21, no. 1, pp. 1-28, 2023.
[114] R. Y. Wang and D. M. Strong, "Beyond accuracy: What data quality means to data consumers," *Journal of Management Information Systems*, vol. 12, no. 4, pp. 5-33, 1996.
[115] J. Yin and X. Qiu, "AI technology and online purchase intention: Structural equation model based on perceived value," *Sustainability*, vol. 13, no. 10, p. 5671, 2021.
[116] C. Lorenzo-Romero, M.-d.-C. Alarcon-del-Amo, and M.-Á. Gómez-Borja, "Analyzing the user behavior toward electronic commerce stimuli," *Frontiers in Behavioral Neuroscience*, vol. 10, p. 224, 2016. https://doi.org/10.3389/fnbeh.2016.00224
[117] R. S. Dixit, S. L. Choudhary, and N. Govil, "Analyzing the impact of artificial intelligence on the online purchase decision-making process through the lens of the UTAUT 2 model," *Discover Computing*, vol. 28, no. 1, p. 88, 2025.
[118] J. F. Hair, *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: Sage, 2014.
[119] C. Fornell and D. F. Larcker, "Evaluating structural equation models with unobservable variables and measurement error," *Journal of Marketing Research*, vol. 18, no. 1, pp. 39-50, 1981.
[120] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," *European Business Review*, vol. 31, no. 1, pp. 2-24, 2019. https://doi.org/10.1108/EBR-11-2018-0203
[121] F. Joseph, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: SAGE Publications, 2022.

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Appendix

Construct measurement

Construct	No	Item	Source
Relevant Experience	RE1	AI-personalized short video recommendations often reflect my personal needs and preferences.	Shen and Wang [66]
	RE2	AI-personalized short video recommendations tend to align with my surrounding context, including social media trends, news, or trending topics.	De Groot [104]
	RE3	I feel that AI-personalized short video recommendations are personalized as if they were designed specifically for me.	Yin et al. [53]
	RE4	AI video recommendations can flexibly adjust to changes in my needs and preferences.	
	RE5	I find these videos useful for my purchase decisions.	
Inspirational Experience	IE1	AI-personalized short video recommendations inspire me to explore new products.	Böttger et al. [56]
	IE2	AI-personalized short video recommendations have inspired me to purchase a product.	Gao et al. [49]
	IE3	AI-personalized short video recommendations have urged me to purchase a product.	Thrash and Elliot [105]
	IE4	New product information from AI-personalized short video recommendations has motivated me to shop.	
	IE5	AI-personalized short video recommendations spark my interest by suggesting products featured in the video.	
Emotional Experience	EE1	AI-personalized short video recommendations make me feel happy, motivating me to purchase the product.	Meng et al. [107]
	EE2	I feel affection for the product and want to buy it after watching an AI-personalized short video recommendation.	Hosany et al. [106]
	EE3	AI-personalized short video recommendations make me feel excited and want to own the product immediately.	Cheng et al. [108]
	EE4	AI-personalized short video recommendations make me feel curious, leading me to search for related products.	
	EE5	AI-personalized short video recommendations make me feel attracted to and eager to own the product.	
Immersive Experience	IME1	I feel immersed in short product videos recommended by AI.	Novak et al. [109]
	IME2	I become completely absorbed in watching AI-personalized short video recommendations and forget the outside world.	Cuny et al. [110]
	IME3	I feel as if I am inside the world of the AI-personalized short video recommendation.	Yan et al. [69]
	IME4	I am immersed in the video and feel as though I am part of that experience.	
Privacy Concern	PC1	I am concerned that platforms are collecting too much of my personal information.	Malhotra et al. [111]
	PC2	I am concerned that the information I provide to the platform will be used without my permission.	Wang et al. [112]
	PC3	I am concerned that my personal information provided to the platform could be accessed by unknown individuals, negatively affecting me.	
	PC4	I am concerned that the personal information I provide to the platform could be sold or shared without my knowledge.	
Information Quality	IQ1	The information I receive from recommended videos is accurate and reliable.	Wang and Strong [114]
	IQ2	The information provided is sufficient for me to make purchase decisions.	Liu et al. [113]
	IQ3	The information is always up-to-date and not outdated.	
	IQ4	The information in the video matches my needs and preferences.	

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	IQ5	The presentation of information (images, descriptions, videos) is clear and appealing.	
E-commerce Purchase Intention	EPI1	I am willing to browse the products/services recommended by the platform multiple times when shopping on an online platform personalized by AI technology.	Lorenzo-Romero et al. [116] Yin and Qiu [115] Dixit et al. [117]
	EPI2	I am likely to purchase goods/services recommended by the platform when shopping on an AI-personalized online platform.	
	EPI3	Using personalized recommendation systems has become an essential part of my online shopping decision-making process.	
	EPI4	I am willing to purchase goods/services recommended by the platform when shopping on an AI-personalized online platform.	
	EPI5	I may make impulsive purchases when using AI-personalized online shopping platforms.	

Descriptive analysis summary

		IE	RE	EE	IME	IQ	PC	IPE
N	Valid	317	317	317	317	317	317	317
	Missing	0	0	0	0	0	0	0
Mean		3.519	3.502	3.842	3.6222	3.587	2.373	3.0229
Std. Deviation		0.6175	0.6458	0.5944	0.42125	0.9661	0.7526	0.97540
Kurtosis		0.044	-0.228	-0.156	-1.349	-0.623	0.777	-0.412
St. Error of Kurtosis		0.273	0.273	0.273	0.273	0.273	0.273	0.273
Minimum		1.6	2.0	2.0	2.75	1.0	1.0	1.0
Maximum		5.0	5.0	5.0	4.50	5.0	5.0	5.0

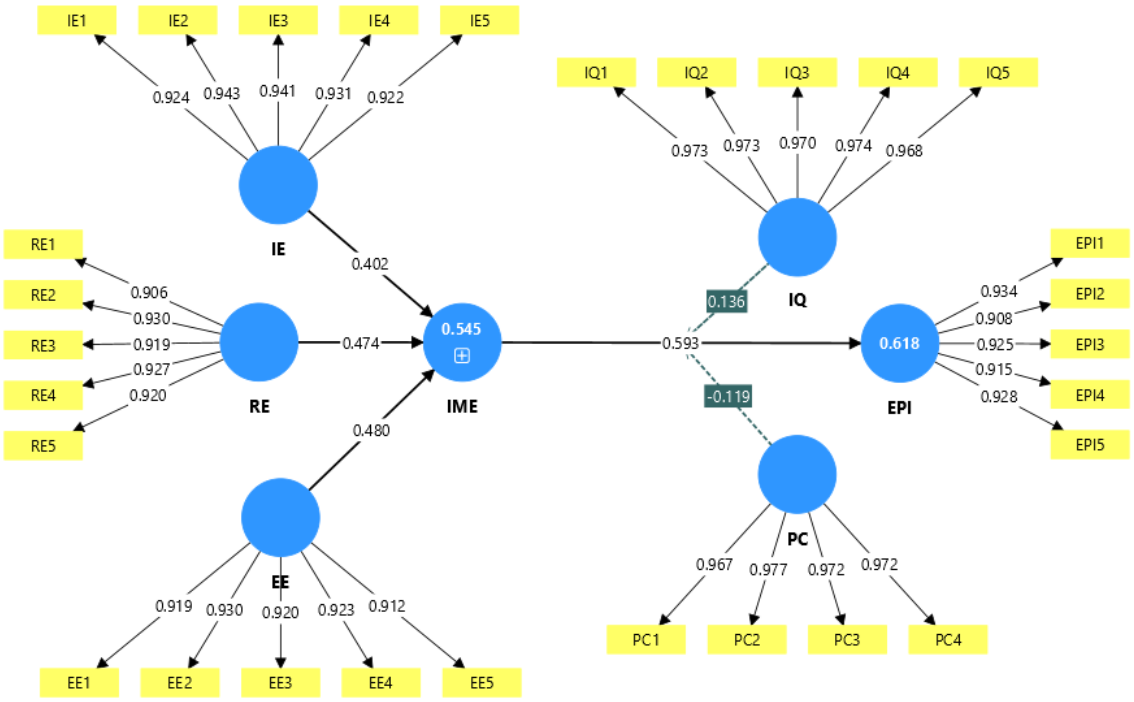

Figure 2.
Structural model with path coefficients and R^2 values.

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