Do emotions matter in online shopping?

Systematic review and future research

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Abstract

Emotions are widely recognized as significant drivers of consumer behavior and decision-making in both offline and online contexts. Despite the rapid expansion of online shopping, research on online consumer emotions remains fragmented, often focusing on isolated emotional states, journey stages, or specific technologies. This fragmentation limits understanding of how emotions shape purchasing decisions across pre-purchase, purchase, and post-purchase stages. To address this, we conducted a systematic literature review to synthesize current evidence, identify overarching patterns, and clarify theoretical and managerial implications.

Following PRISMA guidelines, we searched Web of Science for peer-reviewed articles published between 2015 and 2025 in leading marketing and consumer research journals. Search terms targeted online consumers, emotions, and purchasing decisions, restricted to "Business" and "Management" categories within SSCI and ESCI indexes. We screened articles according to predefined inclusion and exclusion criteria and extracted key data, including objectives, methodologies, findings, and implications. A final sample of 111 articles was analyzed through thematic synthesis. Findings reveal mechanisms by which emotions influence pre-purchase, purchase decisions and post-purchase decisions. Emerging themes include the influence of AI-driven personalization and emotional engineering, emotional contagion in online interactions; and ethical considerations surrounding emotional data use in online shopping. The findings provide a comprehensive overview of the field and highlight key areas for future investigation into the emotional dimensions of online shopping.

Keywords: Emotions, Online shopping, consumer behavior, systematic review.

Acknowledgment

I.   Introduction

Consumers today navigate significant emotional complexity within online environments (Pappas, Kourouthanassis, Papavlasopoulou, et al., 2017). Emotional triggers-such as algorithmically generated excitement, urgency, or nostalgia-can profoundly shape decisions throughout the entire customer journey, from initial website interaction to final purchase confirmation. However, much of the existing empirical literature offers a limited perspective (Alsaggaf & Althonayan, 2018), typically focusing on isolated reactive emotions or particular cases of sentiment-analytic manipulation. This underscores a pressing need to integrate deeper psychological insights, particularly from behavioral psychology, with the study of artificial intelligence to better understand and explain the nuances of consumer emotional responses in digital contexts (Adolphs et al., 2003; Bader & Kaiser, 2019). Accordingly, this systematic review examines the role of emotions in online consumer decision-making, with attention to psychology, marketing, and AI. It explores how emotions influence pre-purchase, purchase, and post-purchase stages, and how AI-driven advertising campaigns shape affect and choices.

The remainder of this article is organized as follows. First, we review the literature on consumer emotions in online shopping and the influence of artificial intelligence on purchasing behavior. The second part outlines the methodology of the systematic review, including the search strategy, selection criteria, and coding procedures. In the third part, we present the main findings, highlighting the impact of emotions on consumer decision-making and the role of AI. Finally, we discuss the implications, limitations, and directions for future research.

II.   Literature Review

Online shopping behavior is a complex process influenced by a multitude of cognitive and affective factors. While traditional consumer decision models often emphasized rationality, current studies are increasingly highlighting emotion as the driving force across the entire digital purchasing cycle. From the initial recognition of a need to post-purchase evaluation, emotional states shape perceptions, guide choices, and influence satisfaction (Bagozzi et al., 1999).

1. The Pre-Purchase Phase: Emotions, Information Search, and AI Influence

The online shopping journey begins long before the actual transaction, during the pre-purchase phase, which encompasses need recognition, information search, and the evaluation of alternatives. Emotions play a decisive role from these very first steps (Russell, 2009; Sharma & Shafiq, 2022; Zeelenberg, 1999). The recognition of a need or desire is often tinged with emotion. Anticipating the pleasure or satisfaction associated with acquiring a product can motivate the search, whereas the negative emotions of boredom or dissatisfaction with a current situation can trigger the shopping process also (Holbrook & Hirschman, 1982).

During the information search, consumers are exposed to emotionally laden content, ranging from product descriptions and customer reviews to influencer recommendations and targeted advertisements. The emotional tone of this content significantly shapes their perceptions, as emotional contagion mechanisms transmit the emotions expressed by others (peers, influencers) to the individual consumer (Bagozzi et al., 2016; Bhattachary & Anand, 2017). At the same time, artificial intelligence has emerged as an active emotional modulator. Recommendation systems no longer simply suggest products based on browsing history but are

increasingly designed to modulate the user's emotional experience. By leveraging positive customer testimonials, creating urgency with time-limited offers, or deploying design strategies associated with "emotional engineering" (Fukuda, 2017; Mustafa Ayobami Raji et al., 2024), AI intervenes direct influence in consumer affect and decision-making.

When evaluating alternatives, consumers weigh not only rational criteria (e.g., price features) but also anticipated emotions. Pride, pleasure and security are frequently imagined as benefits of ownership, while anxiety and regret often act as deterrents. Research by (Roese & Summerville, 2005),show that anticipated regret, in particular is a strong determinant of choice, often overriding strictly cognitive assessments (Zulkarnain et al., 2018).

Overall, the pre-purchase stage reflects a complex interplay between the consumer's intrinsic emotions, external emotional stimuli (content, reviews) and algorithmic interventions, setting the stage for the final purchase decision.

2. The Purchase Phase: Decision, Transaction, and Emotional Experience

The purchase phase represents the critical moment where the evaluation of alternatives translates into a concrete decision and transaction. Emotions, perceived rationality, and AI interventions continue to interact in complex ways (Seegebarth et al., 2019).

The classic debate between emotional and rational decision-making is particularly relevant at the point of making a purchase. While some studies, often relying on traditional economic models and self-report surveys, posit a rational evaluation of product attributes (price, quality, etc.), others highlight the overriding power of immediate affective responses during the purchase moment.(Shiv & Fedorikhin, 1999), demonstrated that under cognitive load, consumers favor the affectively appealing option (chocolate cake) over the more "rational" one (a fruit salad), suggesting limited resources amplify emotional choices. However, specific emotional states, such as mild dissatisfaction or detachment, can paradoxically foster more thorough, rational analysis.

To probe decision-making processes beyond conscious reports, neuromarketing employs tools like functional Magnetic Resonance Imaging (fMRI) and Electroencephalography (EEG) (Eijlers, n.d.; Song et al., 2025). These techniques allow observation of real-time brain activity during the actual purchase decision. FMRI studies have identified pleasure and reward-related brain areas (e.g., nucleus accumbens) activating upon viewing desirable products, often predicting whether a consumer will finalize the purchase (Pradana & Wisnu, 2021; Scholz & Smith, 2016). EEG captures rapid neural responses to online shopping interfaces or advertisements, providing indicators of attention ,cognitive load, and emotional valence as consumers progress through the purchase process (Alsharif & Mohd Isa, 2024).

The act of transaction itself is equally charged with emotions. A smooth and secure checkout process can reinforce positive emotions and reduce anxiety, whereas friction points such as lengthy forms, technical glitches, or confusing payment steps often result in frustraction,abandonment,and lost sales (Han, n.d.; Johnson, 2018) . To mitigate such risks, companies use optimization techniques including A/B testing, usability testing, and emotional tracking(e.g., facial expression analysis or post-task

surveys) to optimize the consumer journey and minimize negative affective responses (Bell et al., 2020).

At the same time, AI-based interventions directly shape outcomes. Dynamic pricing systems create urgency through real-time adjustments, while AI-powered chatbots provide reassurance at the critical last moment, reducing hesitation and fostering conversion (Cui et al., 2021; Mustafa Ayobami Raji et al., 2024). Overall, the purchase phase illustrates how rational evaluation, immediate emotions, and AI interventions intertwine to determine whether consumers complete or abandon their transaction.

3. **The Post-Purchase Phase: Satisfaction, Reinterpretation, and Loyalty**

The customer experience does not end with the transaction. The post-purchase phase is crucial for long-term satisfaction, loyalty, and brand reputation (Kim et al., 2015). Consumers evaluate whether their purchase meets expectations, and this emotional appraisal determines overall satisfaction. When expectations are confirmed or exceeded, satisfaction arises (Santos & Boote, 2003) . Conversely, unmet expectations may generate disappointment and cognitive dissonance-a psychological discomfort caused by inconsistency between beliefs (e.g., "I made a good choice") and reality (e.g., the product has flaws, or a better alternative is discovered) (Gardial et al., 1994; Santos & Boote, 2003; Spiteri Cornish, 2020). To resolve this tension, consumers often reinterpret their experience in light of their emotions, attempting to maintain a coherent and positive self-perception (Sweeney et al., 2000).

In addition to private reflection, emotions extend into public expression through reviews and feedback. Online platforms actively encourage consumers to share post-purchase evaluations, which not only inform future buyers but also serve as an outlet for emotional expression, whether satisfaction,frustration,or anger (Gountas & Gountas, 2007). This create cycles of emotional contagion where the feelings of one consumer influence many others. Companies increasingly employ automated sentiment analysis to capture and interpret these emotional signals at scale, integrating them into marketing strategies and product improvements.

Social dynamics also shape the post-purchase experience. Belonging to online communities, fan groups, or influencer circles provides consumers with validation, identify reinforcement, and a sense of belonging (Nguyen & Ho, 2022). Sharing purchases and receiving recognition from peers, strengthens satisfaction and fosters loyalty, while lack of alignment with group norms may provoke dissatisfaction. Many brands strategically cultivate such communities to tie consumer identity to the brand itself through shared emotional experiences (Olusanya, 2014).

This literature review highlights how emotions permeate every stage of online shopping- from initial search to post-purchase reflection-shaping motivation, information processing, evaluation of alternatives, final choice, satisfaction, and loyalty (Mostafa & Kasamani, 2021).

III.   Methods

We conducted a systematic literature review, structured in three stages to address research gaps (Arteaga et al., 2024).In the first step, we compared key theories on consumer emotions in online shopping. Second, we clarified conceptual ambiguities by reviewing multiple research streams on emotion-driven triggers and their influence on online purchase intentions. Finally, we formalize the boundary conditions by examining a variety of research contexts in which consumer emotions impact choice. To ensure methodological rigor, we

conducted an adapted PRISMA framework (Gonçalves et al., 2023). Our protocol includes the following defining aspects. To ensure academic rigor, we focused on articles published between 2015 and 2025 in high-ranking journals within business and management. The search was conducted in the Web of Science database, using terms such as "online consumers", "emotional triggers", and "purchase intention". Only open-access articles indexed in SSCI or ESCI were included, while studies unrelated to business management were excluded.

The initial search identifies 111 articles (see figure 1). After removing duplicates and non-relevant studies, 25 articles remained for analysis. A structured coding process allowed us to classify these contributions according to their theoretical perspectives, methodological approach, and findings, highlighting how emotions shape digital purchasing behavior (Bernerth & Aguinis, 2016; Duriau et al., 2007; Huang & Pape, 2020).

IV. Finding

In this systematic review, we analyzed a sample of 25 studies (see table 1) investigating the impact of consumer emotions on online purchasing decisions.

1. Methodological Approaches in the Literature

Predominance of Quantitative Approaches

A significant number of studies (24 out of 25) focused mainly on quantitative approaches (e.g., surveys, experiments, analytical techniques such as structural equation modeling (SEM)). These methods were primarily used to examine the impact of emotions on consumer purchase behavior, with SEM being particularly favored for analyzing mediation and moderation effects. Most studies relied on web-based surveys, with sample sizes ranging from 180 to 700 respondents, predominantly composed of students and online consumers.

Experimental Designs and Neuromarketing Techniques

Several studies (particularly in the field of neuromarketing) followed an experimental designs, employing both lab and online experiments. These studies aimed to manipulate emotional responses (e.g., positive vs. negative emotions) and assess their impact on purchase intentions. In addition,some studies combined neuromarketing techniques, such as the use of eye-tracking and facial expressional analysis, to capture real-time emotional reactions during online shopping tasks.

Statistical Techniques for Analyzing Emotional Influence

Techniques such as structural equation modeling (SEM), regression analysis, and experimental analysis were employed to isolate complex relationships between emotions, brand perceptions, and consumer purchase behavior. The applied techniques were particularly valuable for detecting emotion mediation and moderation effects in decision-making, particularly in large surveys and experimental manipulations.

2. The Influence of Consumer Emotions on Purchasing Behavior

The Dual Impact of Emotions on Consumer Purchase Intentions

Positive emotions such as happiness, excitement, and trust consistently increase purchase intentions across products and contexts. Marketing strategies—like price discounts, live streaming performances and animated content—are used to elicit pleasure, arousal, and admiration, enhancing engagement and conversions. Product attributes influence behavior, but emotions often act as mediators; for instance, store atmosphere and promotional incentives can stimulate pleasure and encourage impulse buying (Study 19). In contrast, negative emotions such as fear, anxiety, and worry can reduce purchase intentions, especially when associated with perceived risks. Threat-related emotions tend to lower intentions (Study 21), particularly for high-risk products like smartphones, where concerns about reliability or security may cause hesitation (Study 18).

Role of Anticipated Emotions in Decision-Making

Anticipated emotions, such as expected happiness, regret, or satisfaction, play an important role in influencing purchase intentions. When thinking about a purchase, consumers seem to expect positive emotions, and when deciding against a purchase: negative emotions. This is in line with results showing that people use anticipated emotions to partially mediate between the valence of the outcome and their purchase decisions (Study 17, 23).

User-Generated Content (UGC) and Emotional Engagement

UGC helps develop emotional connections between brands and consumers resulting from increased trust, credibility, and perceived authenticity. Moreover, the study results show UGC positively shapes consumer emotions and purchase intentions, especially when reliable, useful (Study 16). The emotional impact of UGC becomes more pronounced when consumers evaluate product alternatives based on previous user experiences.

Emerging Cognitive Dimensions in Emotional Consumer Behavior

Some studies (e.g., Studies 3, 13, 21, and 24) suggest that emotions interact with reflective processes, such as regret, satisfaction, or relief after a purchase. Consumers may experience emotions at the point of purchase and imagine alternative outcomes ("what might have been"). –For instance, post-purchase regret or relief may affect future purchase behavior or brand loyalty, particularly where purchase decisions are emotional or personally valuable(Huang & Pape, 2020; Zulkarnain et al., 2018). These findings underscore the complexity of online decision-making, where emotional and cognitive processes further, particularly the role of counterfactual emotions, to understand how consumers learn from past experiences and anticipate future outcomes (Celuch et al., 2015; Zeelenberg, 1999).

V.   Discussion

The relationship between emotions and online consumer behavior has been explored across a wide range of studies, revealing both robust patterns and more nuanced dynamics. Evidence consistently shows that emotions are central to the online consumer journey, shaping how consumers process information, evaluate alternatives, and experience satisfaction. Beyond immediate purchase choices, they also influence longer-term perceptions and loyalty. Experimental approaches, combined with neuromarketing techniques (e.g., Affective Computing), provide valuable real-time insights by identifying which emotions act as drivers and which serve as inhibitors, thereby linking internal affective states with observable consumer behaviors. Future research will benefit from methodological triangulation that integrates behavioral, neuroscientific, and computational perspectives to capture these processes more comprehensively.

A particularly influential mechanism is anticipated emotion. Emotions such as regret and happiness operate as counterfactual simulations of imagined outcomes- "What if I regret this later?" or "What if I miss out?" – That decisively guide consumer behavior. When strategically activated, they can heighten purchase intentions, while negative affective states like fear or anxiety often act as barriers by amplifying perceptions of risk or uncertainty. Brands can counter these inhibitors by reinforcing trust through warranties, transparency, and credible reviews. In this regard, user-generated content (UGC)emerges as a pivotal emotional and strategic driver: reviews and testimonials aren't simply a form of social proof, but also act as emotional triggers, evoking positive counterfactuals ("What if this could be my experience too?") and alleviating hesitation. By shaping both the emotional climate and the decision process, UGC functions as a dual-force instrument in digital marketing.

Finally, emotional and counterfactual responses are not universal but culturally embedded. Cultural norms influence how consumers visualize potential outcomes, interpret regret, or respond to emotional cues. As digital commerce expands globally, a uniform emotional strategy is unlikely to resonate across market. Instead, effective expectations and cognitive frameworks.

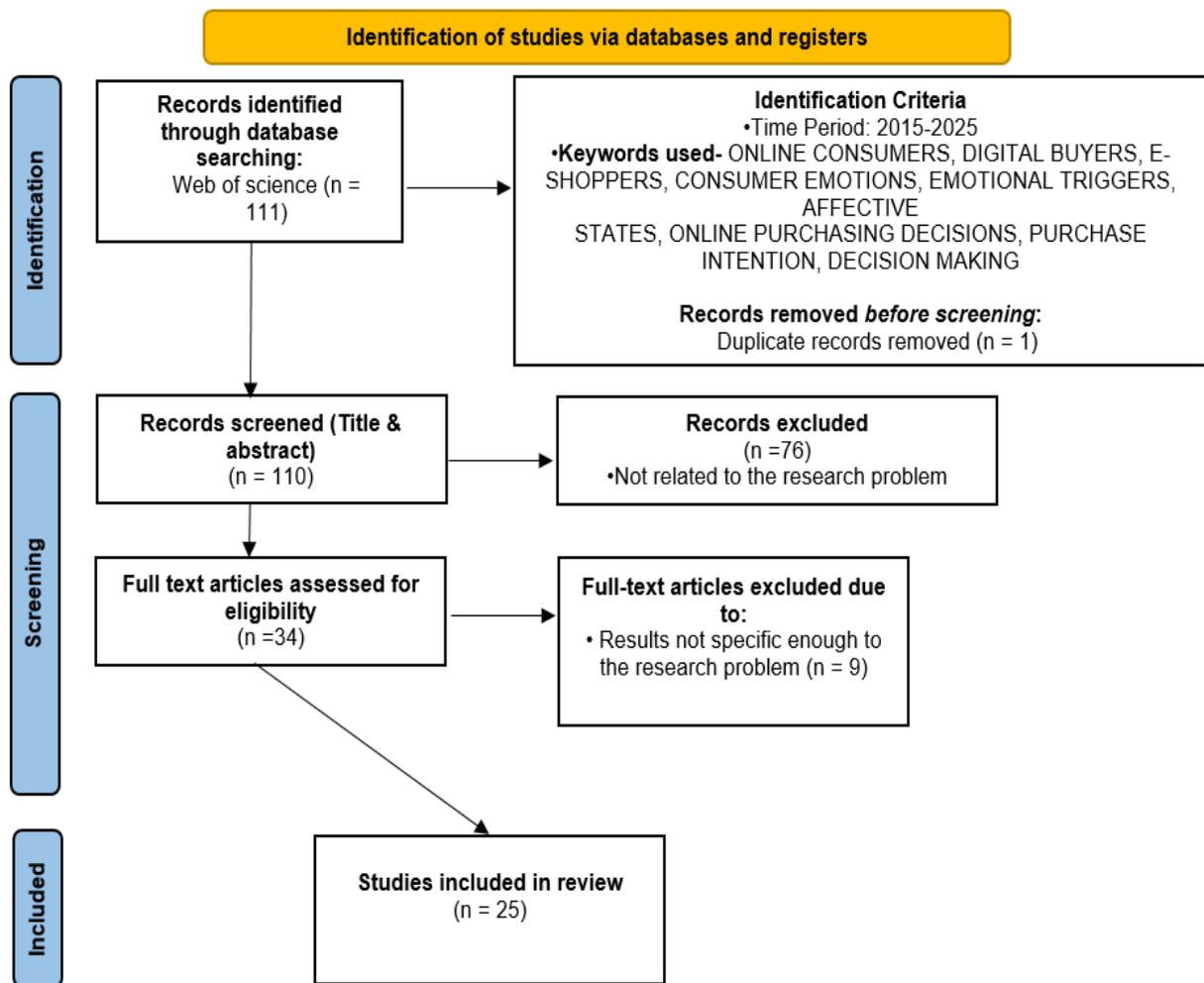## VI. Conclusion and Future Research Directions

This systematic review highlights the intricate interplay between emotions and purchasing behavior in online environments. Generally, positive emotions enhance the likelihood of purchase, while negative emotions-particularly those related to risk or uncertainty-tend to inhibit it .Anticipated emotions, as outcomes of counterfactual thinking, also strongly shape decisions: positive counterfactuals (imagined satisfaction) boost purchase intent, whereas negative ones (fear, regret) reduce it (see Table 2). User-generated content further drives emotional engagement and trust, influencing both emotions and actions.

Despite growing attention to emotional processes, several gaps remain (see table 3).These include cross-cultural differences in emotional perception, the long-term impact of emotions on repeated purchases, and the role of anticipated emotions in guiding decision. Counterfactual thinking (CFT) deserves particular focus, as imagined alternative outcomes affect satisfaction, loyalty, and choice evaluation.

The rising prevalence of UGC on digital platforms also encourages further research on its emotional and cognitive consequences, especially how these gaps interacts with counterfactual processes. Addressing will deepen understanding of online consumer behavior and establish counterfactual thinking as a key construct in future research.

Figures

Figure 1: PRISMA Flow Diagram of Study Selection for the Systematic Review

Identification of studies via databases and registers

Identification

Records identified through database searching:
Web of science (n = 111)

Identification Criteria
• Time Period: 2015-2025
• **Keywords used-** ONLINE CONSUMERS, DIGITAL BUYERS, E-SHOPPERS, CONSUMER EMOTIONS, EMOTIONAL TRIGGERS, AFFECTIVE STATES, ONLINE PURCHASING DECISIONS, PURCHASE INTENTION, DECISION MAKING

Records removed *before screening*:
Duplicate records removed (n = 1)

Screening

Records screened (Title & abstract)
(n = 110)

Records excluded
(n =76)
• Not related to the research problem

Full text articles assessed for eligibility
(n =34)

Full-text articles excluded due to:
• Results not specific enough to the research problem (n = 9)

Included

Studies included in review
(n = 25)

Tables

Table 1: summary of included Studies

N°	Study	Author(s) & Year	Methodology	Sample Size	Key Findings

1	Customer engagement and intention to purchase attitudes of generation Z consumers toward emoji's in digital marketing communications	(Duffett & Maraule, 2024)	Quantitative (survey)	419 Generation Z consumers	Emoji's in marketing impact engagement and purchase intention. Negative emotions moderate the effectiveness of emoji-based communication.
2	The mediating effect of consumers' price level perception and emotions towards supermarkets	(Cakici & Tekeli, 2022)	Quantitative (survey)	400 supermarket consumers	Price perception mediates the effect of emotional responses (positive and negative) on supermarket choice and purchase intention.
3	Effects of consumers' construal levels on post-impulse purchase emotions	(Togawa et al., 2020)	Experimental (3 studies)	100–200 per study	Consumers with higher construal levels feel less regret and more satisfaction after impulse purchases. Construal levels shape post-purchase emotional processing.
4	Positive emotions influencing consumer shopping behavior on e-commerce platforms	(Cuong, 2024)	Quantitative (survey)	500 e-commerce consumers	Positive emotions significantly affectconsumer-shopping behavior on e-commerce platforms, enhancing both engagement and purchase intentions.
5	Interplay between subjective norm, emotions, and purchase intention towards foreign brands: evidence from Vietnam	(Nguyen & Ho, 2022)	Quantitative (survey)	316 Vietnamese consumers	Subjective norms influence moral emotions, which in turn affect purchase intentions toward foreign brands.
6	Incorporating Emotions into Evaluation and Choice Models: Application to Kmart Australia	(Roberts et al., 2015)	Behavioral modeling (CBR)	N/A (model-based approach)	Emotional states like joy and regret improve the prediction accuracy of consumer choice models.
7	Culture and Self-Congruity in Online Product Ratings: Exploring a Dual Perspective on Emotional Differences in the Pleasure and Pain of Consumption	(Ju & Yoo, 2024)	Quantitative (survey)	410 participants (Global)	Self-congruity influences emotional responses in online product ratings. Consumers experience pleasure or pain depending on whether the product aligns with their self-concept.
8	Drivers of consumer's willingness to pay for fair trade food products: the role of positive and negative emotions	(Fernández-Ferrín et al., 2024)	Quantitative (survey)	514 consumers (Spain)	Both positive and negative emotions significantly influence consumers' willingness to pay for fair trade food products, with

				positive emotions having a stronger effect.
9	Buyer-seller negotiation in consumer markets: an intention congruence approach	(Shehryar, 2023)	Experimental design	200 participants	Intention congruence between buyers and sellers significantly influences negotiation outcomes and emotional responses.
10	Flash sales: how consumers' emotional responses to negative word-of-mouth affect diagnosticity and purchase intentions	(Tan & Chen, 2023)	Quantitative	308 participants	Emotional appeals enhance the perceived value of green products, leading to higher purchase intention.
11	Ethical decision making in counterfeit purchase situations: the influence of moral awareness and moral emotions on moral judgment and purchase intentions	(Martinez & Jaeger, 2016)	Quantitative	225 participants	Consumers trust AI recommendations more when transparency is provided.
12	Customer emotions when making an online purchase decision: Results of neuromarketing experiments	(Yarosh et al., 2021)	Survey + Structural Equation Modeling	450 online shoppers	Psychological ownership strengthens emotional attachment and repeat purchases.
13	Positive emotion bias: Role of emotional content from online customer reviews in purchase decisions	(Guo et al., 2020)	Experimental survey	106 participants	High levels of regret lead to negative brand perception and lower future purchase intent.
14	Perceived helpfulness of eWOM: Emotions, fairness and rationality	(Elvira Ismagilova et al., 2020)	Quantitative		Scarcity messages trigger urgency and impulsive buying but may cause post-purchase regret.
15	Sense and sensibility in personalized e-commerce: How emotions rebalance the purchase intentions of persuaded customers	(Pappas, Kourouthanassis, Giannakos, et al., 2017)	Quantitative	582 online shoppers	Emotional satisfaction drives long-term subscriptions more than functional benefits.
16	Impact of user-generated content in digital platforms on purchase intention: the mediator role of user emotion in the electronic product industry	(Sang et al., 2024)	Quantitative		Fear-based messaging can increase engagement but may reduce trust in brand messaging.
17	The Role of Anticipated Emotions in Purchase Intentions	(Bagozzi et al., 2016)	Mixte	4 studies	AR enhances emotional connection and brand

				engagement, leading to higher purchase rates.
18	The Role of Emotions in Shaping Purchase Intentions for Innovations Using Emerging Technologies: A Scenario-Based Investigation in the Context of Nanotechnology	(Seegebarth et al., 2019)	Quantitative	731 consumers	Consumers experience cognitive dissonance when purchases don't align with expectations, affecting brand trust.
19	Determinants of Impulse Buying Behavior: The Mediating Role of Positive Emotions of Minimarket Retail Consumers in Indonesia	(Arianty et al., 2024)	Quantitative	180 participants	AI-driven dynamic pricing affects perceived fairness and emotional responses.
20	Pride in my past: Influencing sustainable choices through behavioral recall	(Rowe et al., 2019)	Experimental (4 studies)	328 participants	Recalling past pro-environmental behavior triggers pride and increases sustainable purchase intentions.
21	The Impacts of Threat Emotions and Price on Indonesians' Smartphone Purchasing Decisions	(Pradana & Wisnu, 2021)	Quantitative		Negative reviews enhance counterfactual thinking, making consumers reconsider their purchase choices.
22	An Empirical Investigation of Customer Intentions Influenced by Service Quality Using the Mediation of Emotional and Cognitive Responses	(Alsaggaf & Althonayan, 2018)	Quantitative	601consumers	Hedonic motivations increase impulse buying, while utilitarian motives drive rational decision-making.
23	Understanding the desire for green consumption: Norms, emotions, and attitudes	(Nascimento & Maria Correia Loureiro, 2024)	Quantitative (survey)	385 consumers (Portugal)	Anticipated emotions and social norms significantly predict green consumption attitudes and intentions.
24	The Impact of Negative Reviews on Online Search and Purchase Decisions	(Varga & Albuquerque, 2023)	Quantitative		Social media conversations significantly influence emotions and brand perception.
25	Emotions in Motion: The Combined Effect of Positive and Negative Emotions on Personalised E-Commerce	(Pappas, Kourouthanassis, Papavlasopoulou, et al., 2017)	Quantitative	421 participants	Consumers react emotionally to AI interactions, affecting their willingness to purchase.

Table 2: Future Research- A Counterfactual Thinking Agenda

Key Insight	Counterfactual Angle	Future Research Direction
Anticipated emotions shape decisions	Mental simulation of "what if" outcomes (regret/happiness)	Examine how consumers use future-oriented emotions to evaluate choices.
Negative emotions deter purchases	Fear-based counterfactuals about possible losses	Study how to reduce imagined risk through message framing.
UGC builds trust and emotional relevance	Triggers comparisons with imagined positive outcomes	Investigate UGC's role in minimizing post-purchase regret.
Cultural norms affect emotional responses	Different cultures simulate different regret/reward scenarios	Conduct cross-cultural studies on counterfactual reasoning.
Neuromarketing captures real-time emotion	Helps observe spontaneous emotional simulation	Integrate physiological and cognitive metrics for CFT (Counterfactual Thinking).

Table 3: Research Gaps

Research Gap	Avenues for Future Research	Conceptual Lens	Proposed Research Questions
Limited understanding of cultural influences on emotional responses	Further exploration of cultural differences in emotional responses to online marketing stimuli.	Cultural Psychology, Cross-Cultural Consumer Behavior	How do cultural differences influence emotional responses to online marketing stimuli across different consumer groups?
Lack of longitudinal studies on the long-term impact of emotions on consumer behavior	Longitudinal studies examining the lasting impact of emotions on brand loyalty and repeat purchase behavior.	Consumer Behavior, Brand Loyalty	How do positive and negative emotions affect long-term brand loyalty and repeat purchase decisions?
Inadequate understanding of emotional influences across diverse product categories	Investigation of emotional influences on purchasing behavior across various product categories and consumer demographics.	Consumer Behavior, Product Category Differences	How do emotions influence consumer-purchasing decisions across different product categories, and how do demographic factors affect these emotional responses?
Underexplored role of anticipated emotions (regret, happiness, satisfaction)	Examination of the role of anticipated emotions in decision-making and their interaction with current emotions.	Emotional Decision-Making, Anticipatory Emotion Theory	How do anticipated emotions (e.g., regret, happiness) influence purchase intentions, and how do they interact with immediate emotional reactions?
Limited integration of mixed-methods approaches	A richer combination of quantitative and qualitative approaches to understand emotional complexity in consumer behavior.	Mixed-Methods Research, Emotional Complexity	How can the integration of qualitative and quantitative methods provide a more comprehensive understanding of emotional complexity in consumer behavior?
Scarcity of research on the use of neuromarketing techniques in online shopping contexts	Further investigation of neuromarketing techniques (e.g., eye-tracking, facial expression analysis) to assess emotional responses in online shopping.	Neuromarketing, Emotion Measurement	How can neuromarketing techniques be applied to assess real-time emotional responses and their impact on consumer decision-making in online environments?
Lack of research on the effectiveness of User-Generated Content (UGC) across different platforms	Exploring the impact of User-Generated Content (UGC) on emotional engagement and purchase decisions across various digital platforms.	Digital Marketing, Social Media	How does User-Generated Content (UGC) influence emotional engagement and purchase decisions on different online platforms (e.g., Instagram, product review sites)?

Minimal exploration of counterfactual thinking in emotional consumer decisions	Investigate how counterfactual thoughts (e.g., "what if I had bought the other product?") shape satisfaction and post-purchase evaluations.	Counterfactual Thinking, Emotion Regulation	How does counterfactual thinking influence consumer satisfaction and emotional evaluation after online purchases?
Unclear role of advertising messages in triggering counterfactual emotions	Examine how emotional appeals in ads (human vs. AI-generated) activate counterfactual thoughts like anticipated regret or relief.	Emotional Framing, CFT in Advertising	How do advertising styles influence the formation of counterfactual thoughts and emotional outcomes before and after purchases?

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