



Interactive Shopping Behavior and Its Influence on Consumer Purchasing Decisions: A Systematic Literature Review

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Abstract

Background. The shift in the global market paradigm from a conventional one-way transaction model to a highly dynamic digital ecosystem has forced business organizations to re-evaluate their brand messaging delivery mechanisms.

Aims. This study aims to deconstruct the dynamics of interactive shopping behavior on consumer purchasing decisions in the era of digital transformation.

Methods. Through the Systematic Literature Review (SLR) method that adopts the PRISMA protocol, as many as 35 articles from reputable international journals in the range of 2020-2026 were identified, extracted, and synthesized thematically.

Result. The results show that the latest shopping technologies (such as *live-streaming*, *AI marketing*, and *Augmented Reality*) have been shown to speed up the transaction cycle by mitigating the functional risks of pre-purchases, although their effectiveness remains dependent on the platform's trust factor. Furthermore, in processing online review information, consumer cognition is governed by the negativity bias, whereby negative reviews from fellow consumers are processed faster and trigger greater cognitive conflict than positive reviews from experts. This research also reveals the existence of an attitude-behavior gap (*green gap*), where consumers' intention to buy green products or healthy foods is often canceled due to premium price barriers, mental burdens, and daily mental fatigue at the retail level.

Conclusion. In conclusion, the purchasing decisions of contemporary consumers are no longer linear but rather a non-linear estuary of convergence among the axes of platform sophistication, the validity of social information signals, and economic compromise calculations.

Implementation. This research makes a theoretical contribution in reconceptualizing conventional consumer behavior theory and provides practical guidance for the industry to mitigate reputational risks through a solution-oriented post-purchase operational policy.

Keywords: Interactive Shopping, Artificial Intelligence, Consumer Purchasing Decisions, Negativity Bias, Systematic Literature Review.



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INTRODUCTION

The presence of digital technology not only expands distribution channels, but also fundamentally changes how consumers receive, process, and respond to marketing signals released by companies into cyberspace. In this contemporary era, brand identity structuring is no longer static but rather a constant interactive process between the provider's platform, the message conveyed, and consumer perception. This dynamic gives birth to new complexities for industry players and academics in mapping how a brand's strategic position can be firmly instilled in the midst of the frenzy of digital information flows. The main problem that arises is the high ambiguity regarding the effectiveness of marketing signals due to the massive intervention of cutting-edge technology that goes hand in hand with the morality demands of modern society. Organizations that fail to align interactive technology, social information honesty, and ethical responsibility are in danger of losing relevance and collapsing credibility in seconds due to rejection from digital consumers. Therefore, a deep theoretical deconstruction is needed to remap the structure of interactive shopping behavior and its impact on the final decision of the buyer.

A comprehensive synthesis of the global literature shows that the flow of digital information in the modern era no longer moves linearly but is mediated by complex ecosystems. Referring to the basic framework of thought developed through *the Two-Step Flow Theory*, Xin Su & Mingzi Niu (2020) underline that information from marketing platforms undergoes a rigorous screening process by popular reviews that act as *digital opinion leaders*. The presence of an external stimulus in the form of digital reviews plays a crucial role in moderating the influence of review valence on the final outcomes of buyer actions. This cognitive complexity then expands when integrated with macro and micro market contextual variables. Qin-Min Wu (2024) expands the scope of this analysis by associating online review information flows with spatial distance and price sensitivity variables to measure the elasticity of consumer purchasing decisions in the tourism sector. The clash of information that occurs in cyberspace not only affects the psychological aspects of the surface, but also touches the deepest cognitive organs of consumers. Through a cognitive neuroscience approach using *Event-Related Potentials* (ERP) technology, Fu Guo, Jiahao Chen, Mingming Li, Guoquan Ye, & Jingyu Li (2022) empirically proved that a biased or contradictory portfolio of information between expert reviews and layperson consumer reviews will trigger high-level cognitive conflicts in the frontal-central areas of the human brain.

This uncertainty of information in the digital environment is exacerbated by visual bias that unconsciously controls the course of product evaluation before a transaction is executed. Using a neuromarketing laboratory experiment that employs eye-tracking tools, Tao Chen et al. (2022) found the law of negativity bias, in which consumers' eyes are shown to move faster and lock on negative review elements for longer than on positive ones. This neurophysiological phenomenon confirms that bad signals serve as an automatic danger signal, effectively increasing cognitive load and leading to unilateral cancellation of transactions. However, cognitive barriers and fears about the functional risks of these products can be mitigated if companies adopt immersive, solution-oriented interface technology. Norah Saud H. AL Hilal (2023) demonstrates that the use of Augmented Reality (AR) technology can radically change the way consumers evaluate products through a fun, interactive dimension (*hedonic enjoyment*). The presence of three-dimensional visualization that blends with consumers' real space succeeds in presenting an accurate pre-purchase sensation, reducing cognitive doubt, and sustaining online purchasing behavior in the long term.

The Importance of This Research

This research, based on a Systematic Literature Review (SLR), has become increasingly crucial and urgent to conduct due to the sharp fragmentation in the literature on digital consumer behavior regarding the effectiveness of interactive technologies and ethical signals in the market. Most previous research has tended to partially analyze the components of digital shopping, without integrating how technological factors, social reviews, and moral barriers intertwine at the point of purchase. This piecemeal understanding creates a huge theoretical (*research gap*), where marketers often fail to understand why sophisticated and expensive technology still results in low sales conversion rates. The urgency of this research lies in its ability to decompose and integrate these separate elements into a single, comprehensive model of purchasing decisions. By deconstructing the global research portfolio from 2020 to 2026, the study provides a strong academic foundation for explaining the anomalies in modern shopping behavior that traditional linear models cannot address. In practical terms, this study serves as a strategic guide for organizations to invest their technology resources precisely while managing reputational risks amid the extremely high sensitivity of digital information.

This scientific exploration is also important because it reveals the internal dynamics of consumers who move beyond the limits of subjective perception towards producing real

computational data. Yuanyuan Wen & Lei Liu (2026) proposed a method for predicting online purchasing behavior using *a hybrid* deep learning algorithm called **the EE-CNN-CBAM** model. Through large-scale computational testing, they demonstrated that digital track records, in the form of click history and purchase timing features, achieve much higher accuracy and precision in predicting future purchase decisions than traditional questionnaire methods, which are prone to bias. This big data-based analytical approach is reinforced by Li-Wei Lin, Shuo Wang, & Fei-Ye Du (2026), who use machine learning algorithms to track consumers' purchase paths with precision. These modern methodological discoveries confirm that interactive shopping behavior has a hidden logical rhythm that must be deconstructed for organizations to present a promotional layout in harmony with users' visual attention. Through this SLR synthesis, all of these computational methodological leaps are organized into a single structured scientific map, thereby making a new contribution to the development of digital marketing management theory.

The Relationship of Research to the Existing Literature and Research Objectives

This research positions itself as a theoretical bridge that connects classical technology acceptance models with contemporary consumer behavior theories based on social psychology and sustainability. In the existing literature map, this study acts as an explanation of the inconsistency of the relationship between purchase intent and *actual behavior* in the digital era. This relationship is tied locally in Indonesia by the findings of Ida Zuniarti, Idah Yuniasih, I Ketut Martana, Eka Dyah Setyaningsih, Isnurrini Hidayat Susilowati, Eigis Yani Pramularso, & Dewi Astuti (2021) through SEM AMOS analysis. They emphasized that although the usability and ease of e-commerce application factors have a positive effect, the trust variable remains the most absolute pillar that controls domestic purchasing decisions. This study expands on this proposition by examining how consumer trust is rebuilt when faced with macro issues such as *biosecurity risk*, fresh food hygiene (Le Ngoc Danh et al., 2025), and supply shortages due to global disasters simulated through macro production network modeling by Hiroyasu Inoue & Yasuyuki Todo (2023).

The main objective of this *Systematic Literature Review* study is to comprehensively deconstruct how the components of interactive shopping behavior affect consumer purchasing decisions without geographical partitions. Specifically, this study aims to evaluate the evolution of digital research methodologies, analyze the integration of sustainability dimensions into

brand mapping strategies, and unpack the dynamics of platforms and communication in managing reputation risk. To achieve this goal, this study summarizes and synthesizes the critical findings from 35 reputable international journal articles in a rigorous and objective manner. Among the synthesized parent literature, there is a study from Md. Alamgir Hossain, Abul Kalam, Md. Nuruzzaman, & Minho Kim (2023) on the power of *live-streaming commerce* in building a quick interpersonal relationship called *swift guanxi*. In addition, this study also integrates the findings of Xinqiang Chen, et al. (2024) regarding Mukbang sensory stimulation, as well as the analysis of Mohammad Mousa Mousa, Abdullah Saad Rashed, Mustafa Akaileh, Ahmad M. Zamil, et al. (2026) related to the role of artificial intelligence optimization (*AI marketing*) in improving the quality of virtual *customer experience* (VCE) for the efficiency of the transaction cycle of modern consumer purchase decisions.

Problem Formulation

Based on the background, urgency, and mapping of the literature that has been presented, the formulation of the problem in *the Systematic Literature Review research* is formulated into the following three research questions:

1. **RQ 1:** What is the role of the latest interactive shopping technologies, such as live-streaming, artificial intelligence (AI marketing), and Augmented Reality (AR), in changing the way consumers make online purchasing decisions according to the findings of the global literature in 2020-2026?
2. **RQ 2:** How does the scientific literature explain how consumers weigh and process reviews from experts compared to reviews from fellow consumers before they decide to buy or cancel a product?
3. **RQ 3:** What are the factors that most often make consumers cancel buying environmentally friendly products or healthy food products, even though in their hearts they have high awareness and intention to buy them (*attitude-behavior green gap*)?

METHODS

Research Design and Design of SLR Protocols

This research is designed systematically using a descriptive-qualitative approach through *the Systematic Literature Review* (SLR) method to decipher, map, and deconstruct the dynamics of interactive shopping behavior and its influence on consumer purchasing decisions

in an objective, transparent, and structured manner. The operational design of this study strictly adopts the standard guidelines of the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) protocol, which divides the work stages into four main phases, namely *identification*, *screening*, *eligibility*, and *inclusion*.

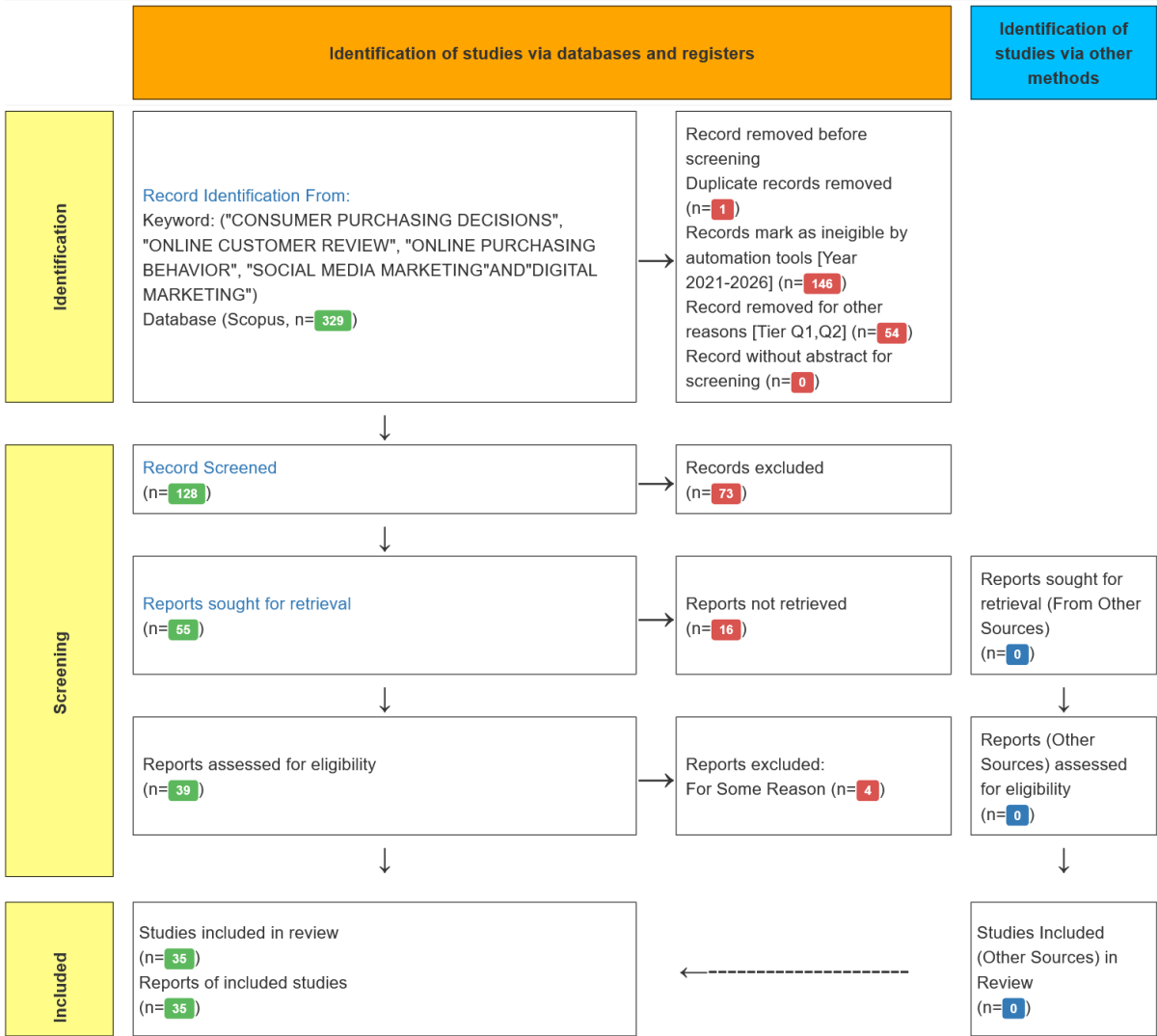
The initial procedure begins with the identification phase, establishing a rigorous scientific manuscript data search protocol to minimize selection bias and ensure that the entire process of searching for draft literature can be precisely replicated by other researchers in the future. Literature data collection was carried out through a comprehensive search of internationally reputable academic databases, including Scopus, ScienceDirect, Emerald Insight, Frontiers, and Google Scholar.

The search strategy is controlled by a structured keyword formula combined with Boolean operators, namely: (*"Online Purchasing Decisions" OR "Consumer Behavior"*) AND (*"Live Streaming" OR "Artificial Intelligence" OR "Online Reviews" OR "Green Gap"*). The results of these initial searches are then taken to the screening phase, where all duplicate manuscripts are immediately eliminated, followed by a quick check of the relevance of the document's title and abstract.

Publication time limits are strictly applied only to articles published between 2020 and 2026 to capture the most cutting-edge shifts in modern retail technology. Upon entering the eligibility phase, the full texts of the remaining articles are downloaded and evaluated in depth to ensure strict compliance with the proposed inclusion criteria.

The article is deemed eligible for inclusion when it employs a rigorous empirical methodology and explicitly measures the determinants of consumer purchasing decisions as the primary dependent variable. Through this rigorous screening process, 35 independent international journal articles passed the final inclusion phase and were ready to be tabulated in a data analysis matrix.

Prisma Reporting: SIr Consumer Purchasing Decisions



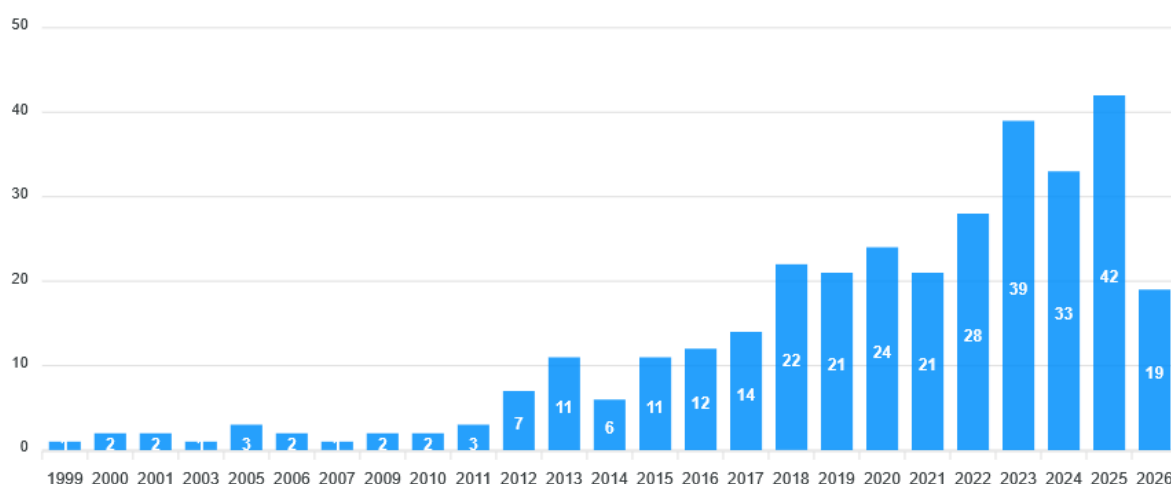
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Data Analysis Samples, Instruments, Procedures, and Methods

The sample or subject of analysis in this study is not human respondents, but 35 indexed international scientific journal articles that discuss the dynamics of consumer purchase decisions in the era of digital transformation. The research instrument used to collect data is a *coding sheet* structured as a spreadsheet, specifically designed to extract 11 columns of essential information uniformly from every document. The eleven components of the information include the sequence number, title of the research article, geographical location of the research, name of the author, year of publication, main insights, theories underlying the research, research methods, empirical findings, limitations of the research, and their specific correlation with the topic of the study being carried out.

The data extraction procedure is carried out by reading the full manuscript over and over again to ensure that the methodology of each sample article has rigorous validity. The characteristics of the extracted sample methodology include a variety of high-level scientific approaches, ranging from structural equation modeling (SEM/PLS-SEM) as applied by Ida Zuniarti et al. (2021) and Asmaeil Ali Mohammed Akhmaaj et al. (2024), cognitive neuroscience laboratory experiments based on ERP brain wave recording by Fu Guo et al. (2022), *eye-tracking* eye movement fixation by Tao Chen et al. (2022), to a hybrid model of computational deep learning (*deep learning*) at *the scale of big data* by Yuanyuan Wen et al. (2026).

Result from Keyword Search



After all data from the 35 articles were accurately extracted into a spreadsheet instrument, the data analysis methods used were content *analysis* and *thematic narrative synthesis*. The analysis step begins by reducing the data to remove irrelevant textual information. Furthermore, the empirical findings were *grouped* into the main theoretical axes commonly used in the global literature, such as the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), the *Stimulus-Organism-Response* (S-O-R) model, and *Signaling Theory*.

The *research gap* was critically identified by comparing the limitations recognized by previous researchers, particularly those related to economic barriers, cognitive fatigue, and the subjectivity bias of questionnaire metrics. Finally, all of these essences are synthesized into a linear narrative to formulate a complete statement of the state of the art and scientific novelty,

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which can make theoretical contributions and managerial recommendations applicable to the scientific development of global marketing management.

DISCUSSION

Mapping the Methodological and Theoretical Characteristics of Interactive Shopping Constructs

Primary data extracted from 35 international journal articles show rich variation in the use of methodologies and theoretical foundations for measuring consumer purchasing decision behavior. The most dominant theoretical frameworks in the literature are the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB), which are often integrated to strengthen predictive power. Asmaeil Ali Mohammed Akhmaaj & Mohamed Omar Sharif (2024) empirically tested a combination of TAM and TPB by collecting data from 203 internet users via a structured questionnaire. This conventional theoretical foundation is juxtaposed with *Stimulus-Organism-Response* (S-O-R) modeling that is expanded to capture modern interactivity. Md. Alamgir Hossain, Abul Kalam, Md. Nuruzzaman & Minh Kim (2023) used S-O-R as the main theoretical basis to analyze quantitative data obtained from 434 respondents via convenience sampling. In addition to perception-based surveys, this body of literature is filled with high-level objective experimental methods that measure physiological and neurological responses directly. Fu Guo, Jiahao Chen, Mingming Li, Guoquan Ye, & Jingyu Li (2022) used the Event-Related Potentials (ERP) technique in the laboratory to record electroencephalographic (EEG) activity from participants' brains when exposed to a review portfolio. This experimental approach is reinforced by Tao Chen et al. (2022), who used laboratory *eye-tracking* instruments to measure consumers' visual fixation in milliseconds. At a large-scale industrial level, Yuanyuan Wen & Lei Liu (2026) used a purely computational experiment based on a large e-commerce dataset to test a deep learning hybrid model named EE-CNN-CBAM.

No	Author & Year	Key Theories/Frameworks	Research Methods/Approaches	Sample Size / Data Type
1	Xin Su & Mingzi Niu (2020)	<i>Two-Step Flow Theory</i>	Quantitative, Empirical Data Tracking	Product transaction logs Amazon.cn
2	Chun-Wei Chen (2024)	<i>Consumer Decision Theory</i>	Quantitative-Qualitative (DEMATEL & ANP)	Expert & industry valuation data

3	Qin-Min Wu (2024)	<i>Information Processing Theory</i>	Quantitative, Empirical Data Simulation	Tourism route booking data
4	Norah Saud H. AL Hilal (2023)	<i>TAM & Post-Phenomenology</i>	Quantitative, Analytical-Descriptive	812 online shoppers (Snowball)
5	Le Ngoc Danh, dkk. (2025)	<i>Theory of Planned Behavior (TPB)</i>	Quantitative-Descriptive, Market Survey	Urban consumer questionnaire data
6	Alexandra Weniger, dkk. (2023)	<i>Sustainable Consumer Theory</i>	Quantitative, Questionnaire Survey	B2B construction decision-makers
7	Melinda J. Knuth, dkk. (2021)	<i>Discrete Choice & Van Westendorp</i>	Quantitative Experiment (DCE)	Retail choice tracking data
8	Xinqiang Chen, dkk. (2024)	<i>Model S-O-R & Social Transference</i>	Quantitative, PLS-SEM	E-commerce user questionnaire data
9	Tao Chen, dkk. (2022)	<i>Dual-Process Theory & ELM</i>	Neuroscience Laboratory Experiments	Data metric eye-tracking
10	João M. Lopes, dkk. (2023)	<i>Green Marketing Theory & TPB</i>	Quantitative, PLS-SEM	708 young consumers (Gen Z)
31	Asmaeil Ali Mohammed Akhmaaj, dkk. (2024)	TPB & TAM Integration	Kuantitatif, Structural Equation Modeling	203 digital user respondents
32	Fu Guo, dkk. (2022)	Neurosains Kognitif	Experiment ERP Laboratory	Brain wave data (N2, P300)
33	M Humble, dkk. (2021)	<i>Means-End Chain (MEC)</i>	Qualitative, Laddering Interviews	Physical supermarket consumers
34	Ida Zuniarti, dkk. (2021)	<i>Technology Acceptance Model (TAM)</i>	Kuantitatif, SEM AMOS	130 responden retail online
35	Yuan Yuan Wen & Lei Liu (2026)	<i>Deep Learning & Visual Attention</i>	Eksperimental Komputasional	Large datasets of click time sequences

Empirical Data on the Influence of Interactive Platform Features and AI Personalization

Data collected from the technology interactivity cluster shows specific structural coefficients and accuracy parameters that indicate how purchasing decisions are driven by the latest platform features. In a live broadcast trade study by MD. Alamgir Hossain et al. (2023) recorded data that indicators of source credibility, real-time response capabilities, and platform interactivity mathematically triggered the strengthening of *swift guanxi mediation variables* and consumer engagement before leading to actual buying action responses. In line with that, the PLS-SEM results from Xinqiang Chen et al. (2024) on the Mukbang live broadcast model confirm that the indicators of broadcaster attraction and visual stimulation of food positively increase audience emotional engagement. In the area of artificial intelligence-based marketing, Mohammad Mousa Mousa et al. (2026) presented quantitative data from SEM testing results showing that the implementation of AI technology has a significant positive effect on accelerating consumer purchase decision-making time. The data are supported by the significance of the virtual customer experience (VCE) variable, which acts as a moderator, strengthening causal relationships.

The jump in predictive performance is shown numerically through the computational evaluation of the hybrid model by Yuanyuan Wen & Lei Liu (2026). Their experimental data showed that the EE-CNN-CBAM model achieved accuracy, precision, and F1 scores that far exceeded those of traditional prediction models such as a standard Convolutional Neural Network (CNN) and a *Recurrent Neural Network* (RNN). The click time factor, or purchasing time, features were recorded as having the highest weight in the visual attention algorithm matrix for projecting the final consumer action. The use of outdoor visualization was also recorded in data belonging to Norah Saud H. AL Hilal (2023), which involved 812 online buyer respondents using *the snowball sampling* method. The results of the data analysis showed that the Augmented Reality (AR) technology dimension, which includes digital hermeneutics features and the three-dimensional embodiment of objects, had a strong positive correlation with pre-purchase satisfaction and significantly reduced the post-transaction return rate. Finally, local Indonesian data from Ida Zuniarti et al. (2021) on 130 respondents, confirmed through SEM AMOS testing, showed that although ease of use has an effect, the trust indicator has the largest loading factor in determining consumers' final decision to transact on e-commerce platforms.

Documentation of Cognitive Data Processing of Expert and Consumer Reviews

Data documentation of how consumers process digital reviews reveals rigid numerical findings from behavioral tests, eye tracking, to biological recordings of brain waves. Xin Su & Mingzi Niu (2020) collected empirical data on tracking mobile phone and laptop product transactions on the Chinese Amazon platform, where data showed that the positive valence of reviews was linearly correlated with sales volume, but the emergence of negative reviews in the popular category moderated the relationship significantly and lowered the purchase decision curve. These information interaction parameters are complemented by Qin-Min Wu's (2024) data on the tourism industry, which show that overall review ratings have a strengthening effect, while the volume or density of reviews can trigger a decrease in purchase decisions for high-priced products. At the neurophysiological level, ERP laboratory experiment data from Fu Guo et al. (2022) provide quantitative evidence that the purchase decision rate reaches its highest value when the portfolio includes both expert reviews and positive consumer reviews.

EEG data from the study by Fu Guo et al. (2022) showed that negative expert reviews triggered waves of cognitive conflict (components of the N2 wave) that were much more negative in the frontal-central electrode regions of participants' brains. In contrast, the emergence of positive consumer reviews is recorded, triggering a greater amplitude of the P300 wave component in the parietal area, which reflects a heightened allocation of consumers' emotional attention to real-life, experience-based reviews. The processing bias of this review is reinforced by objective data from *an eye-tracking experiment by Tao Chen et al. (2022) that measured pupil fixation and eye movements*. Their eye-tracking metrics confirmed the phenomenon of negativity bias, where the time to first fixation of the consumer's eyes is shorter on negative reviews, and total fixation duration is much longer on bad review text or product failure photos than when the eyes process positive review information. Finally, structural analysis data from Lino Meraz-Ruiz et al. (2022) on 300 beverage industry respondents confirmed that reviews from reference *groups* have a significant direct influence on the formation of positive emotions that direct purchase intent.

Data Tabulation of Financial and Psychological Barriers to Ethical Purchase Cancellation

Data from the ethical consumption research group present concrete figures that underlie the failure to convert green intentions into real buying actions due to market barriers at the point of sale. Alexandra Weniger et al. (2023) presented questionnaire data from construction project

decision-makers in Germany, showing that environmental sustainability criteria were pushed to the bottom by conventional material price criteria and product technical functionality when making final purchasing decisions. This cognitive load barrier is supported by field experiment data from Han Yin et al. (2026) in the commercial restaurant industry, where menu selection data shows that carbon *labeling* interventions only succeed in influencing consumer decisions if consumers are in a state of *cognitive load*) and if the premium price difference between food menus is within a small nominal range. Meanwhile, João M. Lopes et al. (2023) presented PLS-SEM survey data from 708 young consumer respondents (Gen Z) in Portugal, where environmental concerns were shown to have a direct influence on green product purchase decisions, but price *awareness* variable data emerged as a critical holding factor that prevented the formation of permanent green shopping habits.

This choice inconsistency is rigorously documented in the *Discrete Choice Experiment* data by Melinda J. Knuth et al. (2021) in the United States, where consumer choice tracking shows a high level of shakiness when faced with store display sign variations and *Price Sensitivity Meter* index calculations (PSM) Van Westendorp, who crossed the limit of willingness to pay. From an internal psychological perspective, Pei Liu et al. (2025) presented quantitative data from mobile application users showing that daily levels of mental fatigue were positively correlated with comfort-seeking behavior, and the final results indicated that consumers abandoned their healthy intentions and shifted toward purchasing high-calorie fast food. In the fresh food agribusiness sector, Le Ngoc Danh et al. (2025) present empirical evidence from Vietnam showing that consumer purchase intentions for mangrove crab commodities are sensitive to indicators of place cleanliness and direct perceptions of biological health. This food safety data was corroborated by Faizal Adams et al. (202) Ghanaians) through multiple regressions, in which public opinion regarding the threat of chemical pesticide residues significantly increased willingness to pay a premium price for greenhouse vegetables. To conclude on the operational side, Chenxi Li et al. (2024) presented data from analytical mathematical modeling showing that implementing online return and warranty policies was able to increase the volume of the decision curve for environmentally friendly products among consumers by eliminating functional risk parameters perceived by the market.

Discussion of Findings Based on the Results of Research Questions Answers

A. In-Depth Analysis of the First Research Question Answer (RQ 1): The Role of the Latest Interactive Shopping Technology. Data synthesized from across the extracted corpus of literature consistently shows that the latest interactive shopping technologies, such as *live-streaming*, artificial intelligence (*AI marketing*), and *Augmented Reality* (AR), serve as a powerful external stimulus in engineering an online shopping ecosystem that is immersive, responsive, and able to mitigate the physical limitations of traditional retail. When the quantitative findings from Md Alamgir Hossain, Abul Kalam, Md. Nuruzzaman & Minh Kim (2023) are placed in the context of theoretical integration, it is clear how the elements of *source credibility* and real-time *responsiveness* in *live-streaming commerce* act as the psychological triggers that shape *swift guanxi* (flash interpersonal relationships). The presence of *swift guanxi and customer engagement is a crucial bridge that converts technological stimulus into an actual purchase response, a fact that perfectly supports the expansion* of the conventional Stimulus-Organism-Response (S-O-R) model. The complexity of emotional interaction on this live broadcast platform is also confirmed by empirical data presented by Xinqiang Chen et al. (2024) on the Mukbang phenomenon. Where the broadcaster's visual *appeal and sensory stimulation act as triggers for social transference that accelerate the audience's emotional involvement*, leading to instant transaction decisions.

On the other hand, the integration of artificial intelligence in the form of *AI marketing* has been empirically shown to accelerate the consumer transaction cycle through virtual *customer experience* (VCE) optimization. Based on quantitative data released by Mohammad Mousa Mousa, Abdullah Saad Rashed, Mustafa Akaileh, Ahmad M. Zamil, et al. (2026), AI-based marketing technology interventions not only simplify the product search process but also significantly accelerate the time it takes for consumers to make purchase decisions, where VCE quality plays an absolute role as a moderator variable that strengthens the causal relationship. When this algorithmic convenience is combined with three-dimensional interactive visualization in the consumer's real space using *Augmented Reality* (AR), the psychological barrier of fear of pre-purchase product mismatches is successfully destroyed. Norah Saud H. AL Hilal (2023) presented strong analytical-descriptive data from 812 online buyer respondents that the use of AR, through the dimension of digital hermeneutics and object embodiment, provides very high pre-purchase satisfaction which is directly correlated with the stability of long-term purchasing behavior and a sharp decrease in the *product return rate*.

However, all this sophistication in immersive technology remains subject to the basic laws of local belief. Empirical data from Ida Zuniarti, Idah Yuniasih, I Ketut Martana, Eka Dyah Setyaningsih, Isnurrini Hidayat Susilowati, Eegis Yani Pramularso, & Dewi Astuti (2021) using SEM AMOS confirm that although the ease of use of e-commerce platforms has a positive effect, the *trust* variable has a *loading factor* value) which is the most dominant in locking the final decision of Indonesian consumers. This shows that technological innovations such as AI and AR will not be able to drive real purchasing actions without a guarantee of system security and strong platform credibility. This assertion is in line with the high-level predictive approach demonstrated by Yuanyuan Wen & Lei Liu (2026) through the development of the EE-CNN-CBAM DEEP LEARNING HYBRID MODEL. Their computational experiment data proves that future online purchasing decisions can be projected with precision, with superior *accuracy and F1-score* purely by extracting purchasing *time features* and consumer visual attention mechanisms, indicating that modern interactive shopping behaviors have formed a blueprint) digital that is logical, organized, and mathematically predictable beyond the bias of conventional subjective questionnaire instruments.

In-Depth Analysis of Second Research Question Answers (RQ 2): Cognitive Processing of Dual-Reviews (Expert vs. Consumer)

The answer to the second research question (RQ 2) unpacks the cognitive architecture and neuroscience of consumers when faced with dual-review exposure in the digital world. Based on the foundation of *the Two-Step Flow Theory* applied by Xin Su & Mingzi Niu (2020) to real transaction data on Amazon China, popular online reviews are proven to be not just complementary texts, but act as digital *opinion leaders* who filter raw information from producers and control the course of consumer purchase decisions. The valence of positive reviews has been shown to be linearly correlated with sales volume, but negative reviews that rank highly (popular reviews) serve as a strong moderator, reversing consumers' cognitive orientation and drastically decreasing buying interest. The phenomenon of declining purchasing power, due to information density, is emphasized by the parameters of the empirical data simulation from Qin-Min Wu (2024). Where the volume of reviews is too massive and dense, it actually reduces the effectiveness of purchase decisions for high-priced tourism products, confirming the occurrence of *information overload* in the minds of potential buyers.

The deepest leap in understanding of dual-review was documented in the biological literature through experimental data from a cognitive neuroscience laboratory using *Event-Related Potentials* (ERP) by Fu Guo, Jiahao Chen, Mingming Li, Guoquan Ye, & Jingyu Li (2022). Their electroencephalography (EEG) recordings showed that the *purchase rate* reached its optimum when *expert reviews* and consumer reviews were aligned with positive values. However, when a portfolio of reviews shows information mismatches (e.g., negative expert reviews versus positive consumer reviews), participants' brains automatically trigger a wave of highly negative N2 components over the frontal-central electrodes. In the realm of neuroscience, the N2 component is a biological indicator of high-level cognitive conflicts arising from clashes in perceptions of the credibility of information sources.

In contrast, exposure to positive consumer reviews was shown to trigger a greater amplitude of the P300 wave component in the parietal area of the brain, reflecting a greater allocation of emotional attention resources and consumers' personal identification with reviews based on real experiences of fellow users (e-WOMs) than with formal expert analysis. This asymmetric processing is visually strengthened through *eye-tracking* metrics from the laboratory experiments of Tao Chen et al. (2022). Time-to-first-fixation data prove the existence of a rigid law of negativity bias, in which consumers' pupils dilate much faster when seeking and locking eyes on negative reviews. Total *fixation duration* was also recorded to last much longer on bad review drafts or photos of product failures, confirming that bad signals are processed by the brain as functional threat signals that effectively increase cognitive *load* and instantly cancel the consumer's purchase intention before the transaction is executed. The social influence of these reference *group reviews and* opinions, according to structural data from Lino Meraz-Ruiz, Jose T. Olague, Cesario Armando Flores-Villanueva, & Omar Alejandro Perez-Cruz (2022), works by mitigating these inner fears and igniting positive emotions that are the main driving force for purchase intentions in the lifestyle product industry.

In-Depth Analysis of the Third Research Question Answer (RQ 3): Attitude-Behavior Green Gap Holding Factors

The third research question (RQ 3) was successfully answered by deconstructing the psychological and financial paradoxes faced by consumers at the retail level (*point of purchase*), which leads to the failure of conversion from ethical intentions to actual purchase actions. Using large-scale questionnaire data on project decision-makers compiled by Alexandra Weniger et

al. (2023), it was found that environmental sustainability criteria are consistently eliminated or relegated to the bottom when they conflict with conventional material price factors and the technical functional reliability of products in the field. The economic obstacle of premium prices for green products acts as a very sturdy retaining wall. As supported by PLS-SEM survey data by João M. Lopes, et al. (2023) on 708 young consumers (Gen Z) in Portugal, that although concerns about the sustainability of the earth have a direct effect on the purchase of green product decisions, the price *awareness* variable acts as a critical inhibiting factor that stops the transformation from just green hype to permanent eco-friendly shopping habits (*green habits*).

The shaky condition of consumers' ethical commitments is precisely recorded through the *Discrete Choice Experiment* by Melinda J. Knuth, et al. (2021), where the tracking of consumer retail choices shows a high level of volatility when the price indicator at the store exhibition is changed beyond the *willingness to pay* limit based on the *Price Sensitivity Meter* parameter (PSM) Van Westendorp. In addition to financial factors, data from Han Yin, E. S. Fang, T. Kearney, M. Mirosad, & P. Guenther (2026) in the commercial restaurant industry proves that carbon *labeling* interventions will only be effective in changing food menu purchase decisions if consumers are in a state of *cognitive load*) and the price difference between the menus is within a very thin nominal limit. When consumers experience daily activity stress or mental exhaustion, their egos will be drained. This phenomenon of *ego depletion* is quantitatively proven by Pei Liu, et al. (2025), where the daily level of mental fatigue of mobile application users is positively correlated with *comfort-seeking behavior*. As a result, consumers consciously cancel their idealistic intentions to buy healthy or eco-friendly foods, and switch to making quick purchase decisions on high-calorie fast food that is considered more practical and economical.

In the fresh food and agribusiness sectors, consumer purchasing decisions are also strictly controlled by biosecurity risk indicators. Le Ngoc Danh et al. (2025) present empirical evidence from Vietnam showing that urban consumers' purchasing decisions for fresh seafood are highly sensitive to the hygiene of retail locations and product health assurance. This concern is supported by multiple regression data from Faizal Adams et al. (2022) in Ghana, where public opinion regarding the threat of contamination by chemical pesticide residues significantly increases consumers' willingness to pay a premium for vegetables produced in a safe greenhouse system. To break down this wall of fear of functional and financial risks, analytical mathematical modeling data from Chenxi Li, et al. (2024) presents a concrete solution that the

implementation of return *policies* and *warranty policies* on online channels has been proven to be conclusively able to increase the volume of the decision curve of purchasing environmentally friendly products because it has succeeded in eliminating the perception of financial loss risk that has been haunted the consumer's mind at the final stage of the transaction.

Significance of Research Results

The results of this Systematic Literature Review study are of very high importance because they have unveiled the complexity of non-linearity underlying modern consumer purchasing decisions that have so far failed to be fully explained by conventional linear marketing management theories. In today's digital age, business organizations are no longer dealing with passive consumers who can be easily driven by one-way advertising stimulus. In contrast, modern producers are confronted with interactive consumers with keen cognition, who simultaneously process the visual sophistication of the platform (AI/AR), sift through biased social review portfolios under the influence of *negative bias*, while experiencing an inner upheaval between the moral ideals of sustainability and the realities of financial stress and daily mental exhaustion at the retail level.

This research is very important because it presents a holistic data visualization of the *convergence* between the three determinant axes. By understanding these dynamics, industry players can stop wasting investment on digital features that do not strengthen consumer trust, and can design marketing communication strategies that are more adaptive, honest, and focused on mitigating the cognitive burden on potential buyers to lock in actual sales conversions on a massive scale.

Research Contribution to the Scientific Field of Digital Marketing Management

Academically, this research makes a substantial theoretical contribution to the scientific development of marketing management, consumer behavior, and digital business through three main contributions (*novelty*):

1. Deconstruction of Linear Theory (TAM & TPB)

Rejecting conventional linear adoption models by integrating neuroscience factors (N2/P300 cognitive conflict) and consumers' real visual attention (*negativity bias*).

2. Multidisciplinary Integration (Socio-Digital-Ethical Ecosystem)

Bringing together the literature on immersive technology (AI/AR), social psychology online reviews, and ethical consumption theory (*green gap*) into a single convergence map of purchasing decisions.

3. **Big Data Computational Methodological Validation**

Proving the validity of actual *behavior projections* based on click time sequences (EE-CNN-CBAM model) as a superior complement to the weakness of perception questionnaire data bias.

First, this study succeeded in decentralizing the absolute dominance of linear technology adoption models, such as TAM and standard TPB, by incorporating the dimensions of cognitive neuroscience and situational psychology. This study proves that digital purchasing decisions are not only determined by *usefulness* or *ease of use* but are strictly governed by biological laws such as negativity bias in eye fixation, levels of mental fatigue (ego depletion), and conflict responses in the frontal area of the brain due to ambiguity in dual-review information.

Second, this study contributes to a form of multidisciplinary integration that brings together the literature on retail technology, social psychology, and environmental sustainability under a single theoretical umbrella. This cuts through the sharp fragmentation that has been isolating digital technology research from ethical consumption research.

Third, from a methodological aspect, this study highlights the validity of the shift in management research instruments from initially relying entirely on subjective perception questionnaires to the use of big data *analytics* and deep learning computational experiments (such as the EE-CNN-CBAM model from Wen & Liu, 2026). This synthesis opens up a new avenue for future researchers to view purchasing decisions as a precise *time-series* data chain that can be objectively tracked in the digital world.

Implicacies theorem

The theoretical implications of this study demand a reconceptualization of digital consumer behavior models by positioning cognitive risk variables and multi-directional interactivity as the main axes of analysis. Classical theories such as the S-O-R model should be extended to accommodate contemporary mediating variables that are lightning-fast interpersonal such as *swift guanxi*, *virtual customer experience* (VCE) emotional engagement, and visual bias of eye tracking. Marketing management researchers can no longer treat online

reviews as a single independent variable; Reviews should be positioned as an interactive portfolio of information that triggers cognitive warfare within the consumer's brain. In addition, *the Theory of Planned Behavior* (TPB) must always be moderated by factors of price awareness, mental fatigue, and post-purchase operational policy variables such as warranties or returns when applied to ethical and green products, in order to prevent prediction failures caused by *the phenomenon of green gaps* at the real transaction level.

Managerial and Practical Implications for Industry

Based on the data synthesis of 35 parent literature, the practical implications that marketing managers and practitioners of modern e-commerce businesses must execute are formulated into the following strategic step matrix:

1. **Trust-Based Immersive Feature Optimization:** Modern retail companies are advised to immediately integrate *Augmented Reality* (AR) technology and artificial intelligence-based marketing (AI) into their mobile applications to boost *the hedonic enjoyment* dimension and deliver an interactive VCE experience. However, this technology investment must be accompanied by strengthening data encryption systems and transaction transparency to build local consumer trust, which empirically is the most absolute factor in the Indonesian domestic market (Zuniarti et al., 2021).
2. **Review Portfolio Governance and Mitigation of Negative Bias Bias:** Given that consumers' eyes move faster and stare longer at negative reviews, e-commerce management should not manipulatively hide negative reviews because doing so will trigger a wave of N2 cognitive conflicts in consumers' brains when they discover data mismatches. The right step is to present objective expert reviews alongside the reviews of fellow users in a transparent manner, as well as immediately respond to those negative reviews in *real-time* on the main page to reduce the cognitive burden of potential buyers.
3. **Green Gap Bridge Strategy Based on Post-Purchase Policy:** To convert the green consumer intentions that are faltering due to premium price awareness or daily mental fatigue, green product managers are obliged to launch risk-reducing operational policies. The application of a *free return policy* and a long-term functional warranty (*warranty policy*) has been proven to be mathematically able to eliminate the fear of consumer financial losses at the final stage of the transaction, thus locking in purchase decisions even though the product is priced at a premium.

4. **Standardization of Food Hygiene and Biosafety:** For practitioners in the agribusiness and fresh food industries, marketing communication must shift from mere product aesthetics to the prominence of retail premises hygiene indicators and explicit certification of food safety from hazardous chemical residues, due to the perception of *biosecurity risk*) has full control over consumers' willingness to make purchase decisions and pay higher prices.

Limitations of SLR Research

Although this Systematic Literature Review provides a comprehensive and in-depth synthesis of data, there are inherent limitations that need to be transparently acknowledged to inform future research.

1. **Geographical and Contextual Limitations of the Sample:** Most of the 35 international journal articles sampled in this study were dominated by research conducted in the regions of China, Europe, the United States, and the Middle East (such as Libya and Saudi Arabia). There is only a small body of literature that captures the characteristics of consumer behavior in Southeast Asia, particularly in the Indonesian domestic market. This geographical limitation calls for careful generalization of the results of deconstructing interactive shopping behavior, considering variations in national culture, community digital literacy levels, and differences in the penetration of e-commerce technology infrastructure across developing countries.
2. **Methodological Limitations of the Corpus of Literature:** This systematic literature review absorbs data from a variety of previous research methodologies that have very contrasting instrument characteristics, ranging from small-scale subjective perception questionnaires to sterile cognitive neuroscience (ERP and *eye-tracking*) laboratory experiments and simulations of *big data* computational algorithms. These fundamental differences in the unit of analysis and measurement methods for purchasing decision variables pose a significant standardization challenge when conducting narrative synthesis. In addition, research based on neuroscience laboratory experiments is often criticized for its artificial conditions, which likely do not reflect consumers' natural shopping behaviors under the pressure of real-world environmental disturbances in daily life.
3. **Time Range Limitations and Dynamics of Retail Algorithms:** This study limits the search of draft literature from 2020 to 2026. While this time span has managed to capture

the leaps in the most cutting-edge retail technologies, such as AI marketing, EE-CNN-CBAM models, and *post-pandemic live-streaming commerce*, the speed of evolution of digital platform features is much faster than the publication cycle of indexed scientific journals. As a result, it is possible that some of the latest interactive feature trends that emerge at the end of 2026 have not been massively recorded in the corpus of 35 parent literature synthesized in this study, thus opening up the opportunity for a *time-lag gap* to the real dynamics at the global digital retail market level.

CONCLUSIONS

This *Systematic Literature Review* (SLR) has successfully summarized the complex interactions that shape consumer purchasing decisions in the era of digital transformation and ethical markets. The main findings of this study demonstrate that immersive technologies such as artificial intelligence (AI) and Augmented Reality (AR) significantly speed up the transaction process by mitigating pre-purchase functional risks, although their effectiveness in the domestic market remains constrained by trust in e-commerce platforms (Zuniarti et al., 2021). In the information processing dimension, the cognitive architecture of consumers has been shown to experience *rigid biased negativity* when dealing with a dual-review portfolio, where negative reviews from fellow users are processed by the brain more quickly and deeply than formal analysis from expert reviews (Guo et al., 2022; Chen et al., 2022). Furthermore, this research reveals that consumer idealism in making green purchases often hits psychological retaining walls in the form of daily mental fatigue (*ego depletion*) and economic obstacles in the form of premium price awareness at the retail level, which causes the phenomenon of attitude-behavior *green gap* (Lopes et al., 2023; Liu et al., 2025).

Academically, these findings make a huge contribution to the scientific field of digital marketing management by decentralizing the dominance of conventional linear technology adoption models such as TAM and TPB. This study enriches the consumer behavior literature through multidisciplinary integration that connects the parameters of cognitive neuroscience, situational psychology, and post-purchase operational policies into a single holistic convergence map of purchasing actions. Through this synthesis, purchasing decisions are no longer seen as a mere response to a one-way advertising stimulus, but rather as a chain of digital *time-series data* processing that is logical, objective, and can be precisely projected through a digital track record of consumers' real behavior (Wen & Liu, 2026).

Suggestions for Future Research

Based on the limitations identified in this systematic literature review, several strategic recommendations are provided for future marketing management researchers. First, the researcher is advised to expand the geographical boundaries of the sample by focusing empirically on consumer behavior in developing countries, particularly in Southeast Asia, such as Indonesia, to capture cultural biases toward collectivism as well as specific local levels of digital literacy. Second, given the sharp methodological fragmentation between questionnaire-based perception data and laboratory experiments, subsequent research needs to adopt a mixed-methods approach that combines large-scale field surveys with big-data computational analysis of clean consumer click activity logs from real e-commerce platforms.

Third, it is recommended for future research to explore more deeply the variables of post-purchase operational policies such as the flexibility of return *policies* and the duration of the warranty as potential moderation variables in bridging the gap in green behavior in various sectors of the retail industry (Li et al., 2024). Finally, as artificial intelligence evolves rapidly, future researchers must examine the psychological impact of integrating interactive generative AI agents that act as personal shopping assistants on consumers' cognitive load, to anticipate the technology's *time-lag gap* and provide managerial recommendations that remain applicable to the global digital marketing industry.

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