

Review Article

Consumer Behavior in the Digital Era: A Systematic Literature Review of Internal and External Influences, Learning and Decision-making Dynamics

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Abstract

Purpose: This study investigates the key determinants of digital consumer habits during the swift expansion of AI-driven platforms and social commerce between 2020 and 2025. It examines how internal psychological factors, external socio-technological influences, learning processes and innovation adoption jointly shapes online purchase decisions. As digital ecosystems increasingly integrate artificial intelligence, personalization and algorithmic recommendations, understanding these multidimensional drivers become essential for explaining how consumers form. Maintain and modify habitual online behaviors

Methods: A Systematic Literature Review was conducted following PRISMA guidelines. A total of 31 peer reviewed articles published between 2020 to 2025 were identified through ScienceDirect, Google Scholar and ResearchGate. Descriptive analysis mapped publication trends, geographical distribution, methodological preferences and underlying theoretical Models. Thematic synthesis was applied to extract and integrate the main determination of digital consumer habits across technological, psychological and social domain.

Findings: The shows a steady global rise in research on digital consumer habits with Asian studies focusing largely on personalization, livestream commerce and AI -mediated engagement, while western studies emphasize privacy concerns, data ethics and trust. Across contexts, trust, perceived usefulness, social influence and platform usability emerged as the most consistent predictors of behavioral intention. In addition, repeated interaction, positive reinforcement, familiarity with platform features and social learning processes significantly increased consumer confidence, technology adoption likelihood and long-term loyalty.

Contributions: The study offers an integrated framework that connects internal cognition, external digital ecosystems and consumer learning processes to explain the formation of digital consumption habits. It advances theoretical understanding by linking and extending TAM, TPB, DOI and S-O-R models to better capture user behavior within AI-enhanced digital environments.

Keywords

Digital Consumer Behavior, Social Commerce, Artificial Intelligence

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Received: 7 November 2025; **Accepted:** 18 November 2025; **Published:** 11 December 2025



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1. Introduction

1.1. Background

The consumer habit has changed swiftly in the 2020 to 2025 period due to the transformation of digital, Social media, Artificial Intelligence and the exponential growth of e-commerce. The expansion of digital technologies, big data has reformed how consumer access to information, alternative evaluation and decision making of purchasing [23]. The business transformation strategies have driven to the development of seamless omnichannel experiences, integrative platforms and data driven personalization that impact the process of consumer decision making [50]. The incorporation of digital platforms and analytics has changed consumer movement from the linear to dynamic, multi touch interaction over the devices and contexts [39, 41].

The Artificial Intelligence specifically in the suggested systems formative and analytics and conversational interfaces has transformed consumer brand relationships. The personalized algorithms now anticipate consumer wants and formalized the choices by curating content and provides in real time [59]. Despite this personalization has introduced new constraints related to algorithmic bias, privacy and consumers are highly sensitive to data transparency and ethical use of AI in marketing [21].

Social media plays crucial role from the side of external influence on the digital consumer habits. The platform like TikTok, Instagram, Facebook and YouTube enable consumers to co create values, share experiences and exert social impact through the user generated content and influencer marketing [8, 30, 33]. The rapid expiation of digital interaction strengthens emotional engagement and social validation making peer feedback a crucial determinant of purchase intention and brand loyalty [40, 91].

The E-commerce and mobile commerce have also experienced substantial expiation, accelerated by the global digital adoption and post pandemic changes in consumer behavior. The online retails sales have sustained to increase annually, driven by improvements in logistics, digital payments and mobile accessibility [61, 70]. The consumers highly prioritize convenience, security and sustainability in online purchases [43]. This development highlights that the digital transformation has made consumer habits more data driven, interactive and adaptive than ever before.

Despite the number of studies on digital consumer habits the literature remains conceptually fragmented. The studies to analyze internal influences such as attitude, perception, trust and motivation and external influences such as social networks, technological platforms and cultural trends in separately [100]. There are few studies have systematically incorporated both dimensions to explain how consumers learn and make decisions in complex, technology mediated contexts. This fragmentation led to limitation of understanding of

how personal psychological mechanisms interact with environmental stimuli to shape habits [4]. Moreover, while Artificial Intelligence, social media and e-commerce have emerged as dominant forces, study has yet co holistically map the integrated impact on consumer learning and innovation adoption processes [29, 44]. therefore, lensed synthesis is crucial to bridge theoretical and empirical gaps in the digital consumer behavior literature.

1.2. The Study Tries to Cover and Addresses Following Research Objectives and Questions

The primary objective of this study is to systematically review literature begin from 2010 to 2025 addressing the multidimensional impacts on consumer habits in the digital era. Particularly this review seeks.

- 1) To synthesize finding on the internal factors such as attitudes, motivation, perception and trust in digital context.
- 2) To examine external factors involving social influence, culture, technology and digital marketing strategies that shape consumer action.
- 3) To explore consumer learning mechanisms led by digital experiences, algorithmic recommendations, and online feedback.
- 4) To Analyze decision making dynamics and innovation diffusion across digital platforms and markets.

The study tries to address the following Research Questions

To achieve the above objectives, the following research questions guide this review. These questions direct the data collection, thematic synthesis and analytical framework of the study, ensuring coherence across psychological, social and technological dimension of digital consumer behavior.

- 1) What internal and external factors influence consumer behavior in the digital era?
- 2) How do consumers learn and adapt in digital environments featured by AI, social media and e-commerce?
- 3) What patterns define consumer decision making and innovation adoption online?

2. Theoretical Foundation

The understanding of consumer habit in the digital era required incorporating classical behavioral theories with contemporary perspectives that account for technological, social and psychological transformations. The hybrid theoretical frameworks that combine elements of psychology, sociology, marketing and information systems to explain consumer learning, decision making and innovation adoption in digitally mediated cases [28, 48].

2.1. Theory of Planned Behavior

The theory of planned behavior indicates that the behavioral intention is the direct predictor of behavior is influenced by three components such as attitude, subjective norms, and perceived behavioral control [3]. There are many studies adapt TPB to assess the consumer decisions, indicates that attitudes toward digital platforms, perceived ease of use and trust crucial predict purchase intentions [5, 26, 34]. In case of social media, and e-commerce, subjective norms such as peer and influencer suggestion and perceived behavioral control such technical competence, access and security assurance have become stronger predictor of behavior compared to traditional offline settings [28]. The TPB offers a robust foundation for understanding internal psychological factors and social influence in the digital environment.

2.2. Technology Acceptance Model

This theory is the central to understanding technological driven consumer behavior [24, 49]. The theory identifies perceived usefulness and perceived ease of use as key determinants of consumer intention to adopt technology. TAM widely extended to involve construct like trust, perceived risk, enjoyment and AI transparency, indicating the complexity of modern digital contexts [21, 36, 77]. The number of studies shows that AI enabled suggestion systems, chatbots and virtual assistants enhance perceived usefulness, while privacy and data concerns negatively influence adoption [16, 32, 71]. In the case of e-commerce TAM explains how consumers cognitive evaluations of technological platforms mediate emotional and habits responses [44, 65, 95].

2.3. Diffusion of Innovations Theory

This theory explains how new technologies products and ideas spreads by population over time [73]. It describes the five innovation features of relative advantage, compatibility, complexity, trialability and observability that formed the adoption habits [60, 67, 68]. The number of studies applied this theory to analyze the adoption of emerging digital technologies like AI base retail systems, mobile banking and social commerce [46, 90]. The diffusion in the digital case is accelerated by social networks, influencer marketing and algorithmic visibility [35, 22, 99]. The consumers perceptions of innovation benefits and trust in digital ecosystems determine adoption speed and loyalty [25, 53, 74]. This theory contributes to understand how external environmental factors and social dynamics shape consumer adoption patterns in the digital era [54, 87, 92, 97].

2.4. Stimulus- Organism-Responsible Framework

This theory offers integrative focus to explain how envi-

ronmental stimuli influence consumer responses through the internal states [55, 64]. The stimuli involve the online design elements, brand messages, social media interactions and technological characterizes; the organs represent consumers cognitive and emotional states in the trust, involvement, satisfaction and the response show to the habits outcomes such as purchase intention and loyalty [48, 58, 79]. This highlights how social media content; virtual reality experiences and AI interactions trigger affective and cognitive processes that shape engagement [72, 89, 102].

2.5. Resource- Based View and Dynamic Capabilities Views

Theory are increase applied to understand how firms respond changing consumer dynamics. The RBV recommended that firms obtain competitive advantage by developing unique, valuable and inimitable resources involving brand equity, consumer data and technological capabilities [10, 26, 27, 51]. The Dynamic capabilities extend this perspective by emphasizing the firm's ability to sense, seize and reconfigure resources to adapt to market shifts [62, 86, 94]. The consumer learning and digital engagement to firms' dynamic capabilities, recommending that adaptive marketing systems and personalized technologies co evolve with consumer habits [39, 85]. The RBV and Dynamic Capabilities view offer a strategic macro level foundation that complements micro level habits theories [93, 98, 99].

2.6. Integrative Theoretical Perspective

The consumer behavior in the digital era is shaped by incorporating psychological, technological and contextual factors. The TPB and TAM illustrate individual level cognition and intention, the diffusion innovation theory and Stimulus organism responsible model capture social and environmental influences and RBV or Dynamic Capabilities views permits a multidimensional understanding of consumer decision making and learning under digital transformation.

3. Methods

3.1. Systematic Review Protocol

3.2. Review Protocol

This study follows the four-stage systematic literature review research protocol as suggested by Tranfield [88]. In the first phase planning the review that formulating of research objectives, Scope, questions and identification of relevant theoretical constructs that internal, external influences, learning, decision and innovation adoption. In the second phase identifying and evaluating the studies in this stage selection of databases that ScienceDirect, ResearchGate and

Google scholars selected searching strategies developed, the inclusion and exclusion criteria and quality assessment metrics were developed. In the third stage Data extraction and synthesis was created that the systematic coding of studies based on year, methodology, theoretical framework, geographical, finding and thematic analysis for integration of results [66, 76]. At the four-stage reporting and dissemination that presentation of results using descriptive statistics, thematic synthesis, and PRISMA flow diagrams to ensure transparency and reproducibility. This approach ensures that the study is replicable, comprehensive and unbiased, addressing both theoretical and practical gaps in digital con-

sumer behavior literature.

3.3. Data Sources and Search Strategy

The study to capture relevant research systematically search conducted on the multi-databases such as ScienceDirect, ResearchGate and Google scholar. The keywords were selected depends on the research objective and questions that involves combination and the Boolean operators and truncation as the below applied to expand coverage while maintaining relevance.



Figure 1. Searching Syntax.

The search was limited to peer-reviewed journal articles in English, published between January 2020 and June 2025. The Grey literature, conference proceedings and non-peer reviewed sources were excluded to ensure quality and credibility.

3.4. Inclusion and Exclusion Criteria

The inclusion and exclusion criteria developed to capture the most relevant and methodologically rigorous studies and exclude the studies that fall outside the conceptual and empirical scope of this study. The inclusion and the exclusion criteria explained in the below table.

Table 1. Inclusion and Exclusion Criteria.

Inclusion	Exclusion
Studies Focused consumer habits in digital, online or technological mediated context	The studies on focus on offline consumer behavior
The studies examined internal or external influences, consumer learning, decision making and innovation	Non-English research
The empirical or theoretical studies published in peer reviewed journal	Non-peer review sources, book chapters, conference and unpublished thesis
The studies published between 2020 and 2025	The studies that has lack of quality and limited relevance to the research question

3.5. Screening and Selection Process

The initial searching yielded 1366 studies. after removing duplicates (n=232), 1,134 articles were screened based on the

title and abstract for relevance. Following full text review, 31 articles were finally involved in the analysis. The PRISMA flow diagram was used to illustrate the section process, ensuring transparency and methodological rigor [56].

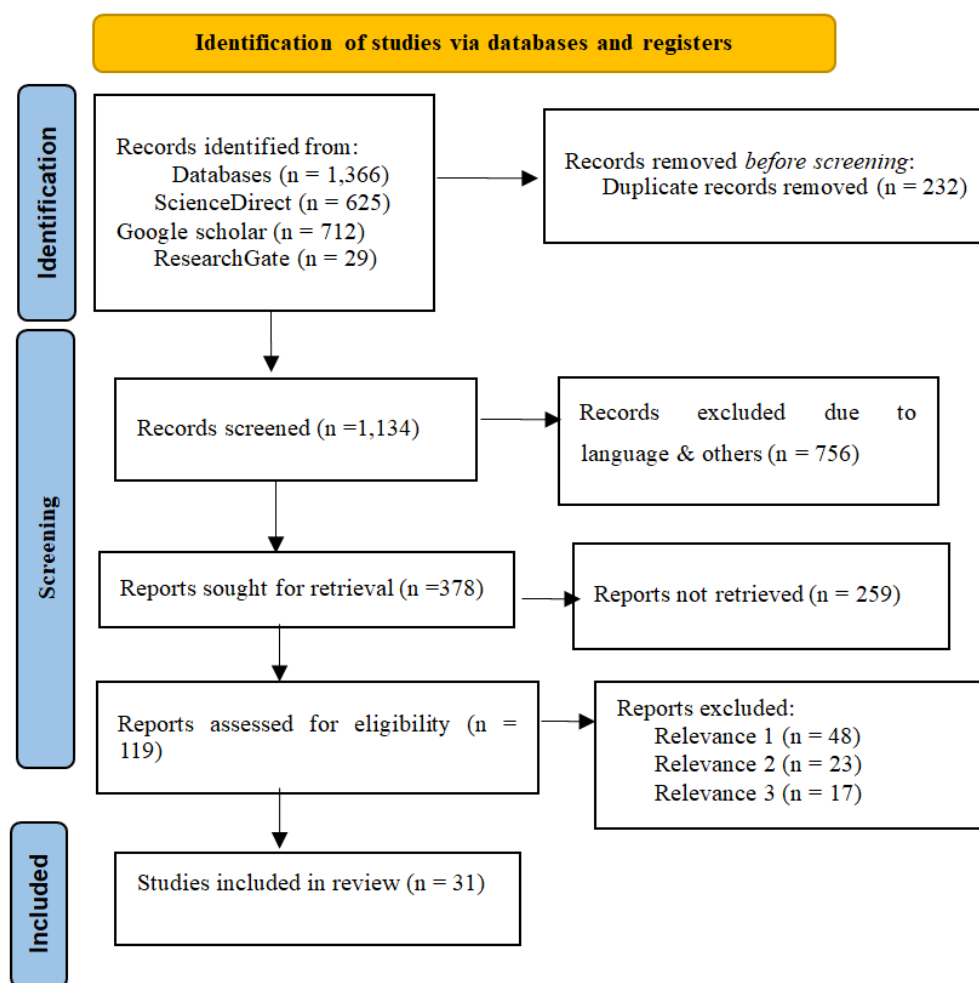


Figure 2. PRISMA.

3.6. Data Extraction and Analysis

The data from the selected studies were extracted into structures spreadsheet to capture the Authors, years of publication, country of studies, research design, theoretical model and key finding relevant to the internal or external influences, learning, decision making and innovation adoption. The thematic synthesis was implemented to group the finding into categories aligned with the study objective and questions. The descriptive statics such as publication trends, country distribution, methodology frequency was calculated to offer an overview of the literature landscape.

3.7. Quality Assessment

The quality of each involved studies was measured through developing the checklist that relevance to the research questions, clarity of the methodology, validity and reliability of findings, transparency in reporting. Each criterion measured out of five that score in the four criteria through scoring 15 was involved, based on this all the studies meets these criteria by measuring the two researchers independently conflict was

resolved in consent the selected 31 articles was involved no quality problem was found. The study focusses on the 2020 up to 2025 to capture the most recent development in digital consumer behavior, involving AI application, social commerce a post pandemic shifts in consumer activities.

4. Results

4.1. Descriptive Analysis

4.1.1. Publication Trend by Year

The volume of the studies on digital consumer habits has grown steadily between 2020 and 2025. Reflecting the swift digital transformation accelerated by AI, social median proliferation and e-commerce expansion. In 2020 two studies published, followed by 6 in 2021, 3 in 2022 shows a little fluctuating, in 2023 and 2024 there were 7 studies respectively and 6 in 2025 this refers the growth of the study on the topic. This trend refers the increasing relevance of understanding consumer behavior in the technological driven markets.



Figure 3. Publication trends by year.



Figure 4. Publication distribution by countries.

4.1.2. Geographic Distribution

The selected studies were geographically diverse, with research conducted predominantly in the global level was 6 china 5. India 4, America 3 and Malesia 2. Others countries such as Ghana, Ethiopia, Hungary, Qatar, Romania, South Africa, Spain, Taiwan Thailand and Turkey were contributed to the diversity but generally have fewer publications per country. This shows the skewness of the studies towards the developed countries.

4.1.3. Research Design

The Quantitative study of Survey dominated the literature 74.2%, followed by systematic literature reviews 16.12% the mixed methods and Experiment design was covering each 6.45% and 3.225% respectively. The structural equation model and regression analysis are frequently applied for hypothesis testing. The qualitative studies are the gaps that many researchers not employed it.

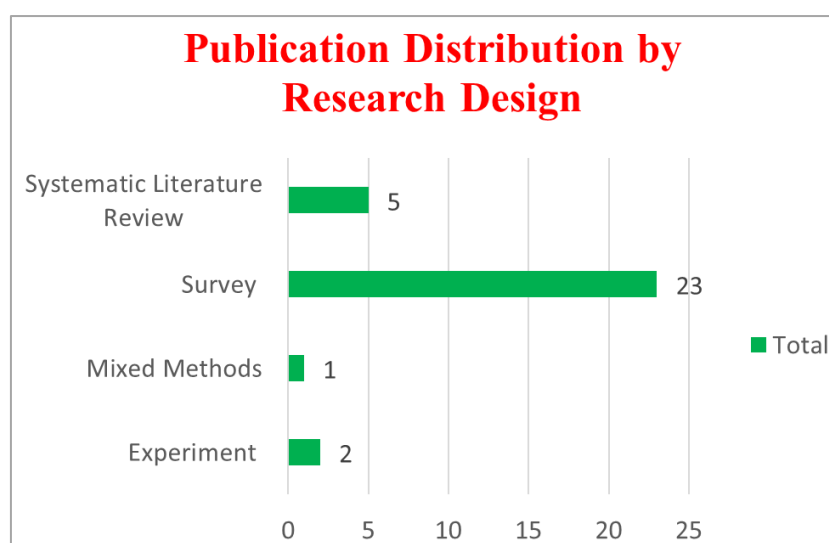


Figure 5. Publication distribution by research design.

4.1.4. Theoretical Model

The analysis of the theoretical model shows that the Technology Acceptance Model (TAM) dominates the field, accounting for 36% of model applied. TAM combined with the Theory of Planned Behavior (TPB) represents 19% and TPB alone contributes 10%. Others prominent model involves the Diffusion of Innovation (DOI) at 13%, Unified Theory of

Acceptance and use of Technology 9 (UTAUT) at 6% and Stimulus Organism Response (S-O-R) at 7% less frequently used models involves Engagement Theory, Perceived Fairness Theory and Resource based view each contributed 3%. This indicates lack of integrated theory to understand the consumer behavior in the digital era.

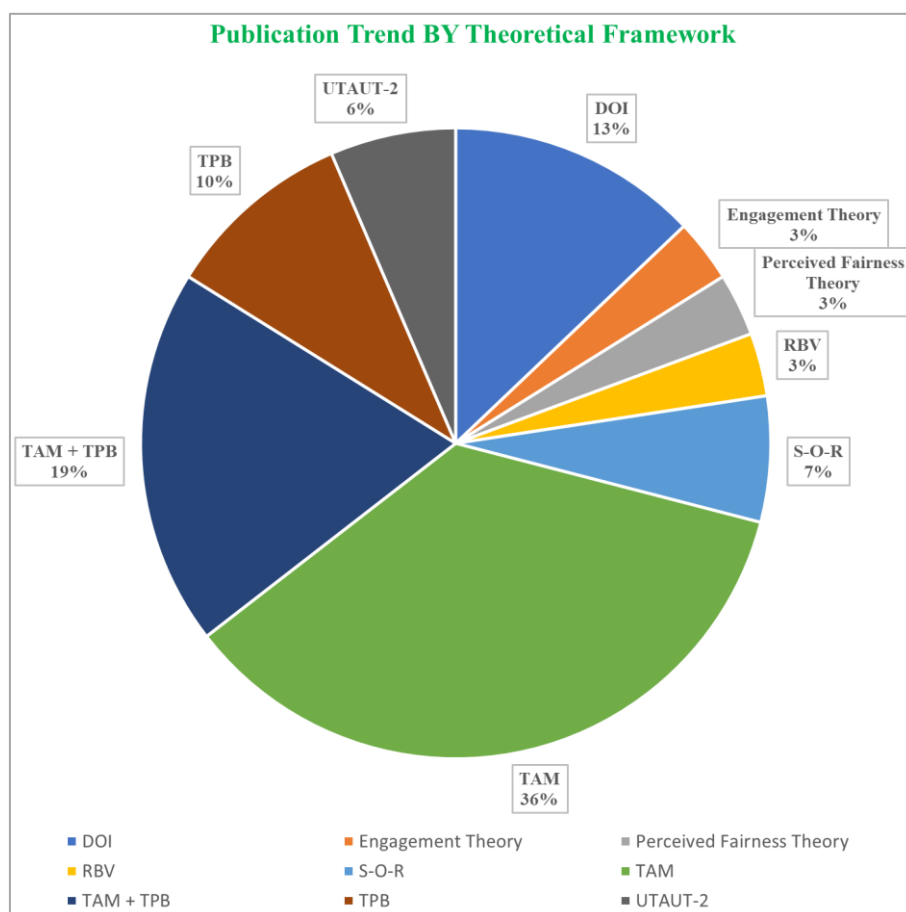


Figure 6. Studies trends by Model.

4.2. Thematic Synthesis

This thematic synthesis was structured according to the research objective and question that the internal influence, external influences, consumer learning and decision making and innovation adoption.

4.2.1. Internal Influences on Digital Consumer Behavior

The internal factors primary involves cognitive, affective and motivational variables that formed online decision making. The attitude toward digital platforms, perceived ease of use, trust and risk perception are sustainably identified as predictor of purchase intention [5, 32, 63]. The trust in AI driven suggestion systems crucial mediates the association between perceived usefulness and intention to purchase [12, 17, 59]. Motivation and involvement influence how consumers process digital content, driving to increase engagement and satisfaction in online transaction [39, 52, 81].

4.2.2. External Influences on Digital Consumer Behavior

The external factors encompass social, technological and

environmental stimuli. Social media interactions, peer reviews and influencer endorsement's exert substantial influences on consumer perception and selection [8, 40, 80]. The technological characteristics such as personalization, suggestion algorithms and platform usability further formed behavior [21, 42]. The integration between social influence and technological affordances accelerates adoption patterns and moderates perceived risk in the online environments [38, 47, 101]. The cultural and situational context like that of regional regulations on privacy and digital payments influence the external environments and determine adoption rates of online platforms [18, 46, 57].

4.2.3. Consumer Learning in Digital Environments

The consumer learning in digital case was led by experience, feedback loops and algorithmic personalization. The repeated interaction with AI based systems increase learning, forming presences and minimize uncertainty in online purchases [21, 78]. the social media and online communities also facilitate different learning where consumers observe others experiences and adapt habit accordingly [7, 8, 45, 84]. Learning outcomes are related with maximized loyalty, trust and willingness to adopt innovations, highlights the role of adaptive knowledge acquisition in digital decision making [69, 75, 102].

4.2.4. Decision-making and Innovation Adoption

The decision making in the digital era is featured through swift evaluation, minimized searching costs and depends on social and algorithmic cues [31, 37, 82]. The Diffusion of Innovations framework explains that perceived relative advantage, compatibility of digital products crucial influence adoption rates [22, 46, 83, 96]. AI driven platforms increase decision efficiency but introduce complexities regarding transparency and honest [5, 94]. Social signals like influencer endorsements and peer reviews, interact with cognitive and affective processes forming both timing and intensity of adoption decision [40, 82, 102].

The incorporation of internal and external factors demonstrates the consumer habits is co determinant through psychological predispositions, environmental stimuli and digital learning processes, highlighting the significance of an interdisciplinary and multi-theoretical perspective.

5. Discussion

The digital consumer habits from 2020 to 2025 research become growth consistent with global acceleration of digitalization and platform mediated consumption [1, 2, 6]. The steady growth in research indicates the expanding role of AI-driven personalization, social commerce ecosystems and mobile first consumer engagement [9, 11]. The geographic distribution refers that while Asian leads in the research exploring social commerce and algorithmic suggestion adoption [13-15], European areas more continue to lens on privacy, trust and data ethics illustrate contextual various in consumer priorities [16, 19, 20] and the African less research shows low technological infrastructure of digital platform [59, 102]. Methodologically the dominance of quantitative and SEM based studies refers a sustained preference for predictive models [32, 40]. The theoretical framework such as TAM, TPB, DOI and S-O-R continue to be central but very few studies highly integrate them to capture multi-level determinant of habits in complex digital contexts [21, 39].

The thematic analysis illustrates that digital consumer habits is formed through interacting internal, external and learning based mechanisms. Internal influences like trust, perceived usefulness and motivational involvement crucial affect online purchase decisions, specifically in AI mediated environments where algorithmic transparency and perceived control influence consumer confidence [32, 59]. Simultaneously, external influence specifically social media endorsements, peer reviews and platform usability play significant role in forming attitudes and accelerating adoption [8, 101]. Learning process led by repeated platform interaction and community-based knowledge exchange increase familiarity and minimize decision uncertainty, facilitating innovation [102]. The integration of internal cognition, social influence and adaptive learning underscores the need for multi-theoretical perspectives to better understanding digital

consumer decision making in swift evolving online markets.

6. Conclusion

The digital consumer habits formed by a complex integration of internal psychological drivers and external socio technical forces. The consumer attitudes, trust, perception of risk and motivations operate alongside social influence, platform design and AI driven personalization to formed engagement and decision-making outcomes. Digital environments enable sustainable learning by direct interaction and observation within online communities, accelerating knowledge acquisition and minimize uncertainty in purchase and adoption processes, decision making in the context is enhance mediated by algorithmic suggestion and social cues, supporting swift and more informed selection while simultaneously raising concerns regarding ethics, privacy and control. Despite, the existing studies remains fragmented with limited attempt to incorporate these dimensions into a cohesive theoretical model.

Abbreviations

TPB	Theory of Planned Behavior
TAM	Technology Acceptance Model
DOI	Diffusion of Innovations Theory
S-O-R	Stimulus- Organism-Responsible Framework
UTAUT	Unified Theory of Acceptance and Use of Technology

Author Contributions

Elias Susi Degefa: Conceptualization, Writing – original draft

Shimels Zewdie Werke: Supervision, Writing – review & editing

Conflicts of Interest

The authors declare no conflict of interest.

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