

Exploring Customer Engagement in Social Commerce: A Literature Review of Frameworks, Pathways, and Emerging Trends

Ghaith Abdulridha Mubdir

Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Bangi, Malaysia | Faculty of Administration and Economics, University of Thi-Qar, Thi-Qar, Iraq
P104676@siswa.ukm.edu.my

Sharizal Hashim

Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Bangi, Malaysia
hsharizal@ukm.edu.my (corresponding author)

Abu Hanifah Ayob

Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Bangi, Malaysia
abuhanifah.ayob@ukm.edu.my

Nadzirah Rosli

Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Bangi, Malaysia
nadzirah.rosli@ukm.edu.my

Received: 31 October 2024 | Revised: 25 November 2024 | Accepted: 14 December 2024

Licensed under a CC-BY 4.0 license | Copyright (c) by the authors | DOI: <https://doi.org/10.48084/etasr.9452>

ABSTRACT

Customer Engagement (CE) in social commerce (s-commerce) has become a focal point for businesses seeking to build long-term consumer relationships in digitally mediated environments. This literature review synthesizes existing research on CE within s-commerce, examining theoretical foundations, key antecedents, mediating and moderating factors, and engagement outcomes. The key findings indicate that among the most important variables for CE is the social support, platform interactivity, and hedonic motivations, while trust and satisfaction act as crucial mediators that bridge initial engagement drivers and long-term outcomes, like brand loyalty and Word-of-Mouth (WoM). Furthermore, the current review discusses the role of moderators, such as demographic characteristics and platform-specific features, in conditioning the impact of CE efforts. It is revealed that engaged consumers not only exhibit increased loyalty and advocacy, but also contribute to the co-creation and community-building efforts within the s-commerce. Future research is encouraged to explore emerging technologies, like Artificial Intelligence (AI) and Virtual Reality (VR), cross-cultural variations in CE, and the ethical concerns surrounding the data privacy and personalization. This review contributes a comprehensive synthesis of CE in s-commerce, positioning it as a strategic asset for brands aiming to foster a sustainable CE in digital ecosystems.

Keywords-customer engagement; social commerce; social exchange theory; Stimulus-Organism-Response (SOR)

I. INTRODUCTION

CE has become essential in s-commerce, changing how organisations connect with customers and build relationships. S-commerce combines social and interactive social media with transactional and functional e-commerce to create a dynamic

environment, where customers are considered active players rather than passive purchasers [1]. Since digital platforms provide direct consumer-company ties, comprehending the CE's significance is crucial [2]. Businesses have realized that CE—defined as emotional, cognitive, and behavioral

investment—is essential for the brand value, loyalty, and success in the competitive s-commerce [3]. Several theories explain the s-commerce client participation [4]. The Social Exchange Theory (SET) suggests that individuals develop ties for reciprocal benefits, thus customers join s-commerce when they see value [5]. This theory states that the community support and social recognition impact the s-commerce CE. Platform usability and content relevance affect customer satisfaction and trust, prompting engagement behaviors, according to the Stimulus-Organism-Response (SOR) model. SOR defines user reactions to digital stimuli in s-commerce through content engagement, discussion involvement, and purchase or brand promotion [6]. Digital engagement, where external cues and perceived incentives affect client action, is complicated [7].

Initial formation engagement, organic engagement pathways, and s-commerce consumer involvement incentives are important pathways to support the development of customer behavior [8]. According to the initial formation engagement pathway, platform accessibility and product information accuracy affect CE, while customer interest and brand happiness spark engagement channels [9-12]. User-generated material, peer recommendations, and human interactions change these pathways, increasing customer loyalty, and hence CE, which is also boosted by influencer collaborations, interactive campaigns, and loyalty schemes [13]. S-commerce platforms use organic and promotional approaches to build self-sustaining consumer relationships and encourage company and community engagement [8, 14].

Changes in s-commerce client behavior indicate the digital commerce's theoretical and practical advancement [15]. Social media and mobile devices offer live-streamed shopping, virtual try-ons, and influencer-led commerce [16], meeting customer needs, since the former want customized, engaging experiences that fit their interests and social settings. Studies show that engagement boosts the brand loyalty, WoM, and co-creation activities, like product feedback and brand-related social media sharing [17, 18]. Furthermore, data-driven customization in s-commerce enables platforms to offer customized content, improving user experience and engagement [19]. As clients realize their digital footprint, the customized involvement poses privacy, data security, and ethical problems [20].

In recent years, scholars have underlined the need of understanding the cognitive, emotional, and behavioral s-commerce CE [21, 22]. Cognitive engagement is the mental effort people put into business understanding and interaction [3], with the latter creating consumer feelings and connections, like joy and belonging. Therefore, customers enjoy, share, debate, and promote the brand through behavioral engagement [16, 23]. These traits help researchers comprehend CE's complete influence on the brand perceptions and consumer loyalty [2, 24, 25]. Since cognitive, emotional, and behavioral investments are crucial for building durable, value-driven connections between enterprises and consumers, each factor is vital for understanding consumer participation in s-commerce [26, 27].

A total of 29 studies that have augmented the understanding of CE in s-commerce through diverse theoretical frameworks,

methodologies, and findings, were reviewed. These studies demonstrate the intricate interaction of consumer motives, platform features, and social dynamics on CE behaviors and outcomes. To examine the present literature on CE in s-commerce, this review synthesizes crucial concepts from each research and categorizes them based on their theoretical framework, sample characteristics, and conclusions. For instance, authors in [28] examined the Indian s-commerce CE using the Means-End Chain Theory. The study found that the sign, passion, and pleasure features boost client engagement and loyalty. The study found that risk significance and likelihood do not significantly impact CE, suggesting that customers may prefer connections above possible hazards. By combining the Elaboration Likelihood Model, Theory of Reasoned Action, and Social Support Theory, authors in [29] expanded the CE theory by studying the electronic WOM engagement. It was found that information quality, validity, website quality, and social support boost the CE and customer purchase intentions, while this approach promotes trustworthiness and effective online settings for CE.

Review-based research has found key CE antecedents and mediators in numerous cases. In a thorough literature review on s-commerce CE, authors in [30] identified certain social, technological, and motivational aspects as key considerations. Social elements, like support networks and interaction quality, foster community, while technological factors, such as system quality and user participation, improve customer experience. In addition, hedonic and utilitarian motivations boost CE, while trust and continuity moderate it. Relationship quality and social presence have also an impact on the CE. Customer brand interaction and media engagement, according to [31], improve the brand loyalty, privacy sharing, and appropriate marketing. The aforementioned studies demonstrate that social, technological, and motivational variables are necessary for CE in s-commerce. In [32], the Uses and Gratifications Theory was deployed to examine the engagement determinants in Malaysia, emphasising consumer motives, such as social connection, knowledge dissemination, and attractiveness. The findings indicated that these elements enhance client interaction, thereby influencing customer purchase intentions. This study elucidates how certain social and informational gratifications might enhance the consumer-brand connection by highlighting the motivating dimensions of CE. Authors in [33] applied the Consumer Value Theory to examine CE in Thailand's s-commerce. They recognized the utilitarian, hedonic, and symbolic values as crucial factors influencing customer trust and CE, with trust acting as a vital mediator that enhances consumer loyalty. The findings revealed that various forms of customer value substantially influence CE and trust, especially in areas with an extensive social media penetration.

Authors in [34] conducted a meta-analysis to discern the prevalent mediators and moderators in CE-research, demonstrating that trust and commitment strongly influence customer satisfaction although they do not directly affect their happy emotions. This meta-analysis emphasizes that even though trust and satisfaction are essential for maintaining CE, customers' emotional reactions are influenced by other variables. Recent research has incorporated influencer marketing and platform-specific interactions [35]. Using SET,

authors in [26] studied how information credibility, community responsiveness, and community support affect knowledge acquisition and contribution. It was found that customer trust moderates CE, which mediates these antecedents. Since knowledge-based interactions require trust, it was implied that platforms with trustworthy content and active communities increase CE.

Previous research has explored s-commerce CE using diverse theoretical and empirical frameworks. With trust and satisfaction having been used as mediators, it was concluded that the perceived value, social and community support, and platform-specific traits affect CE. Newer studies have addressed contextual and trend-based features, such as platform engagement, influencer marketing, and value co-creation, and have identified essential antecedents. These findings highlight the current and new ways for enterprises to develop meaningful, value-driven customer connections, improving the understanding of s-commerce CE.

This literature review seeks to consolidate the current knowledge on CE in s-commerce, examining both theoretical frameworks and practical implementations of CE. The present paper analyzes fundamental concepts, such as the SET and the SOR model to elucidate the factors that propel CE and the processes through which it evolves. Contemporary patterns and new behaviors in s-commerce will be examined, with an emphasis being placed on the distinctive elements that set it apart from the standard e-commerce. This research enhances the comprehension of the complex CE nature, providing significant insights for academics, practitioners, and platform developers. As s-commerce evolves, comprehending the factors, dynamics, and results of the CE will be crucial for formulating strategies that cultivate significant customer connections and enduring brand loyalty in a more competitive digital marketplace.

II. RESEARCH METHOD

This thorough overview of the s-commerce CE research covers theoretical frameworks, engagement channels, and factors impacting the CE results. Synthesizing research data accurately, clearly, and consistently promotes a thorough understanding of customer participation in s-commerce. To acquire articles, databases such as Scopus, Web of Science, and Google Scholar were searched. Search terms including "customer engagement," "social commerce," "digital consumer behavior," "s-commerce," and "social media engagement" were involved in a wide range of s-commerce customer interaction studies. Recent articles from the last five years (2019-2024) were prioritized to guarantee their relevance to the current trends and developing research findings. To maintain quality, only peer-reviewed journal articles, review articles, and empirical studies were included, thus ensuring that the current review has drawn from credible and academically rigorous sources.

In order to refine the search results and ensure their relevance to the present study's objectives, specific inclusion and exclusion criteria were applied. That is, articles were included if they: specifically addressed CE in an s-commerce or social media setting, utilized recognized theoretical

frameworks related to CE, and examined key antecedents, mediators, moderators, or outcomes of engagement. The selected studies were also required to employ empirical, review, or meta-analytic methodologies. Studies that were unrelated to the s-commerce or lacked clear definitions of CE were excluded to maintain the focus on a high-quality research within the scope of CE in s-commerce.

To organize and analyze the information systematically, a coding framework was developed for data extraction and categorization. Key details were extracted from each study, including publication information, such as author, year, journal, theoretical frameworks, examined variables, research methodologies, and major findings. Variables, such as independent, dependent, mediating, and moderating factors, were coded to capture the complexity of the constructs within each study. This structured coding approach facilitated the identification of recurrent themes, patterns, and emerging trends in the literature, which contributed to a comprehensive thematic synthesis. The consistency in coding was maintained through regular cross-checks, with the inter-coder reliability having been assessed to minimize any discrepancies and uphold the methodological rigor.

The data analysis involved both descriptive and thematic methods. The descriptive analysis provided a summary of the studies' methodological and theoretical approaches, and sample characteristics. The thematic analysis was then applied to identify recurring themes, such as foundational theories of CE, motivational and social antecedents, technical and platform-related factors, and CE outcomes. The thematic approach clarified the different dimensions and drivers of CE in s-commerce, allowing for a structured exploration of how various factors influence the CE behaviors.

Quality assurance was upheld by adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) criteria, which guarantee transparency and rigour in systematic reviews. The inclusion and coding of each study were independently validated by many reviewers to reduce potential bias. Regular inter-coder reliability assessments were performed, with inconsistencies having been addressed and resolved cooperatively to ensure precision and impartiality. These measures bolstered the methodological robustness and validity of the review process, guaranteeing a thorough synthesis of the data from the chosen research.

III. RESULTS

This section presents the descriptive analysis as well as the main findings of this study.

A. Descriptive Analysis

In this study, a total of 29 articles between 2019 and 2024 were reviewed. The number of articles increased between 2019 and 2020 and decreased between 2021 and 2022, while a slight increase was witnessed between 2023 and 2024. The limiting date was September 2024. Figure 1 shows the year of publication.

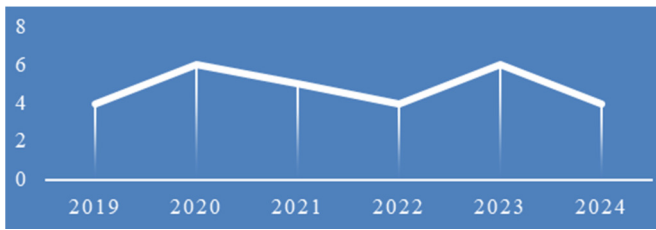


Fig. 1. Year of publication.

These articles were distributed among several countries, with the largest percentage having been found in China (30%), followed by Malaysia (20%), and India (15%), indicating that online businesses in these countries are flourishing. The studies can be divided based on their adopted approach to three categories. The highest percentage, 62%, belonged to empirical studies, followed by review studies covering 31%, and conceptual studies accounting for 7%. The high number of review and conceptual studies suggests that the topic is still new and researchers are attempting to understand it by either reviewing the literature or proposing new frameworks. As displayed in Figure 2, the sample size of the reviewed articles ranged from 100 to more than 800 respondents, with the largest sample size number being 201-400 respondents. This could be due to the usage of structural equation modeling, which requires a sample size above 200 for reliable results to be obtained [37].

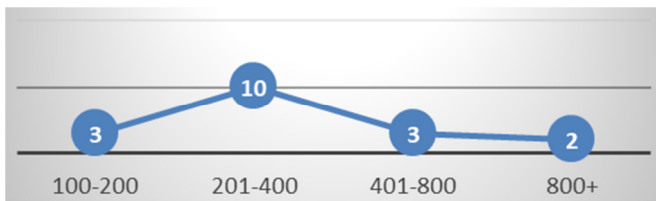


Fig. 2. Sample size.

B. Thematic Analysis

This literature review organizes the findings to emphasize the principal topics and trends in the CE research within s-commerce. This part delineates the theoretical underpinnings, principal antecedents, mediating and moderating variables, and CE outcomes.

1) Conceptual Underpinnings of Customer Engagement in Social Commerce

CE in s-commerce is supported by several theoretical frameworks, with each of them providing distinct perspectives on the consumer interactions with companies on social media platforms. The predominant theories are the SET, which highlights the reciprocal advantages as a catalyst for customer involvement, and the SOR model, which examines the impact of the external stimuli on the consumer behavior via their emotional and psychological states. Applications and Gratifications and Consumer Value theories often emerge, emphasizing the motivational and value-oriented dimensions of CE. Table I encapsulates the principal theoretical frameworks identified in the literature.

TABLE I. THEORETICAL FOUNDATIONS IN CUSTOMER ENGAGEMENT STUDIES

Theory	Description	Ref.
SET	Engagement is driven by the perceived reciprocal benefits in interactions.	[5, 30, 31]
SOR	External stimuli influence the internal responses, which shape engagement behavior.	[6, 27, 38, 39]
Uses and Gratifications Theory	Engagement is influenced by the pursuit of personal gratification.	[32, 40]
Consumer Value Theory	Value derived from interaction, influences trust and engagement.	[33, 41]

These frameworks show that value judgements, external triggers, and customers' satisfaction demands affect CE in s-commerce. Research has demonstrated that grasping these theoretical components is essential for sustaining CE.

2) Key Customer Engagement Factors

Social, technological, and motivational variables influence the s-commerce CE. Social variables, including social support, community presence, and peer interactions, boost platform belonging and CE. High-quality digital environments stimulate user participation, therefore platform interaction, information quality, and system reliability are also important. By satisfying consumers' practical and emotional demands, the utilitarian and hedonic values improve CE. Table II lists the major antecedents derived from the reviewed research.

TABLE II. KEY ANTECEDENTS OF CUSTOMER ENGAGEMENT IN SOCIAL COMMERCE

Category	Antecedents	Ref.
Social Factors	Social support, community presence	[42-44]
Technical Factors	Interactivity, information quality	[29, 30]
Motivational Factors	Utilitarian and hedonic value	[28, 41, 45]

The combination of social, technological, and motivational aspects promotes CE, underlining the necessity for platforms to combine functionality with social and emotional features.

3) Mediators and Moderators of Customer Engagement

Mediating and moderating factors are crucial to CE, affecting the transformation of antecedents into engagement behaviors. Most mediators between the antecedent and engagement outcomes are trust and satisfaction. Trust typically mediates the platform quality-loyalty relationships. The demographic variables, namely age and gender, platform richness, and interaction intensity moderate the CE antecedent-outcome connections. Table III portrays the CE mediating and moderating variables. Trust and satisfaction bridge the gap between the initial engagement triggers and long-term loyalty, while moderators, like demographic factors, adjust these relationships based on user characteristics or platform specifics.

TABLE III. MEDIATORS AND MODERATORS IN CUSTOMER ENGAGEMENT STUDIES

Type	Variables	Ref.
Mediators	Trust, Satisfaction	[33, 34]
Moderators	Demographic characteristics, Platform richness, Interaction intensity	[26, 40]

4) Outcomes of Customer Engagement in Social Commerce

The outcomes of CE are multifaceted, extending beyond direct purchases to include behaviors, like brand loyalty, positive WoM, co-creation, and customer citizenship behaviors. Brand loyalty and WoM are consistently noted as primary CE outcomes, where engaged consumers advocate for the brand and become repeat customers. Additionally, many studies have stressed the co-creation and customer citizenship behaviors as valuable outcomes, as they reflect consumers' willingness to contribute feedback, share content, and actively participate in brand-building activities. Table IV outlines the key outcomes associated with CE.

TABLE IV. OUTCOMES OF CUSTOMER ENGAGEMENT IN SOCIAL COMMERCE

Outcome	Description	Ref.
Brand Loyalty	Repeat purchasing behavior and loyalty to the brand	[38, 42]
Positive WOM	Sharing positive brand experiences	[27, 32]
Co-Creation	Active consumer contributions to the brand	[40, 46]
Customer Citizenship Behaviors	Supporting brand through advocacy and content sharing	[18, 36]

These findings underscore the value of CE beyond direct sales, revealing how engaged consumers can become loyal advocates and contributors to brand success through their positive interactions and active participation.

IV. DISCUSSION

This literature review explains the complex dynamics of CE in s-commerce, including theoretical foundations, main antecedents, mediating and moderating variables, and engagement outcomes. The persistence of the SET and SOR in the reviewed research exhibits that the perceived value and external stimuli influence CE. These theories stress that transactional benefits and broader social and emotional links with businesses and communities affect CE in s-commerce. This realization forces companies to go beyond traditional interaction methods and address both the intellectual and emotional client experience. Understanding user motives is essential for an effective CE in s-commerce due to social, technical, and motivational reasons. Social factors, like community presence and support, show that fostering a sense of community and inclusion may boost CE. Platform interactivity and information quality allow customers to navigate, interact, and connect. Utilitarian and hedonic values demonstrate that customers participate for satisfaction, pleasure, and social interaction [45]. These findings imply that s-commerce platforms must combine functionality with social and emotional elements to increase CE and customer loyalty.

Trust and satisfaction are key mediators between the engagement drivers and loyalty and advocacy. To retain engagement, users must trust the platform's reliability and credibility. Great experiences and satisfaction encourage customers to return and promote the firm. Additionally, modifiers, like demographic data and platform-specific attributes, exhibit that the engagement outcomes may vary according to the consumer category and platform type, requiring specialized engagement methods for different user

groups and digital environments. The s-commerce CE leads to brand loyalty, excellent WoM, co-creation, and customer citizenship behaviors, proving that engaged customers drive the brand advocacy and innovation. Engaged consumers promote brand growth through WoM, content, and feedback. These findings suggest that organizations can benefit from engaging customers in the brand ecosystem to boost loyalty and a community-oriented brand growth.

This literature review builds on previous evaluations on the CE in s-commerce, which identified existing gaps and proposed further research. In [21], it was noted that CE research is well-established, whereas social media and s-commerce studies are few. In CE research, s-commerce is understudied, confirming the proposal made in [21] for a more targeted strategy. The present paper analyzes social platform engagement factors, including social support and platform interactivity to expand these discoveries. Authors in [3] divided the CE drivers into cognitive, emotive, and behavioral aspects, involving brand, platform, and social variables. The current study adds hedonic motivation and platform usability to the categorization of [3]. It also presents the SET and SOR to better explain the s-commerce CE. The majority of CE studies are detected in Western countries, according to [21], emphasizing the necessity for a cross-cultural study. The present study tackles this gap by encompassing additional Asian studies, from countries such as India, China, and Malaysia, widening the cultural breadth and promoting a more internationally inclusive CE research agenda. Due to a dearth of research on social media influencers in s-commerce, authors in [34] examined influencers' impact on CE. Influencers are important, but the current work also examines platform-specific factors and trust as a mediator, suggesting a holistic approach to the CE research that combines social and technological parameters. In conclusion, prior CE research has revealed core patterns, but the present study adds subtle insights relevant to the s-commerce, a larger theoretical background, and cultural and geographical variances. This synthesis stresses the need for further study on varied engagement factors, cultural settings, and s-commerce trends to better comprehend CE in the digital era.

V. LIMITATIONS AND FUTURE WORK

A. Limitations

Despite the comprehensiveness of this review, certain limitations should be acknowledged. First, the reliance on specific keywords, such as "customer engagement" and "social commerce," may have inadvertently excluded studies that used alternative terminologies or definitions for these concepts. As a result, some relevant findings may be missing, particularly from interdisciplinary studies that explore CE from different perspectives. Additionally, the focus on peer-reviewed journal articles may limit the diversity of the perspectives included, since insights from industry reports, conference proceedings, or practitioner-based studies were not examined. This exclusion could mean that practical insights and real-world applications of CE in s-commerce were underrepresented. Another limitation is the lack of longitudinal studies within the reviewed articles, which restricts the review's ability to analyze any changes in CE behaviors and their outcomes over time. Finally,

due to the evolving nature of the s-commerce, the findings of this review may quickly become outdated as new engagement technologies, such as AI and VR, continue to shape consumer behavior and expectations in s-commerce.

B. Future Research Directions

The evolving landscape of s-commerce presents numerous opportunities for future research to expand on the findings of this review and address existing gaps in the literature. Based on the findings, theoretical implications, and observed limitations, several areas for further study have emerged. As digital platforms continue to adopt new technologies, there is a growing need for research on how emerging technologies, such as AI, Augmented Reality (AR), and VR influence CE. Future studies could investigate how these technologies affect CE, particularly through immersive shopping experiences, personalized recommendations, and real-time customer service. For example, AI-driven personalization could further enhance consumer interactions by tailoring the content and offers to individual preferences. Similarly, AR and VR experiences, such as virtual try-ons and virtual shopping environments, could foster a deeper engagement by allowing consumers to interact with products in more lifelike and experiential ways.

The CE behaviors in s-commerce are likely influenced by cultural and regional factors, yet limited research has focused on these differences. Cross-cultural studies could provide insights into how varying cultural norms, social expectations, and digital adoption rates impact the CE behaviors. For instance, CE motivations may differ across collectivist versus individualist cultures, affecting the ways consumers interact with brands on social platforms. Comparative studies across regions, especially those comparing developed and emerging markets, could highlight how economic and technological factors shape CE in different s-commerce contexts, guiding brands to tailor their strategies accordingly.

Given the dynamic nature of the digital commerce, longitudinal studies are essential to understanding how CE evolves over time. Future research could investigate how long-term exposure to engagement strategies affects consumer behavior, loyalty, and advocacy. Such studies would be valuable in examining CE sustainability and whether initial engagement translates into a consistent long-term behavior. Additionally, longitudinal research could shed light on how changes in consumer preferences, platform features, and external factors, such as economic shifts, impact CE.

As platforms increasingly use consumer data for a personalized engagement, ethical considerations around privacy, consent, and transparency have become critical. Future research could explore how data privacy concerns influence consumer trust and willingness to engage with brands in s-commerce. Studies examining the balance between personalization and privacy could provide valuable insights for brands seeking to maintain ethical standards while maximizing engagement. This line of inquiry could also explore consumer perceptions of data use, particularly in regions and countries with stringent data privacy regulations.

Although SET and SOR are dominant frameworks in the CE literature, incorporating additional theories could provide a

more comprehensive understanding of the consumer behavior in s-commerce. Theories, such as the Social Identity Theory, focusing on the group affiliation, and Self-Determination Theory, which emphasizes intrinsic motivation, could offer new insights into how consumers relate to brands and engage with them based on self-perception and group dynamics. Furthermore, integrating psychological theories, such as the Flow Theory, could enhance the understanding of how immersive experiences influence CE on digital platforms.

Influencers and user-generated content play a prominent role in shaping consumer perceptions and engagement on social platforms. Future studies could explore how influencer partnerships and user-generated content impact the CE outcomes, such as brand loyalty and WoM. Additionally, research could examine how different types of influencers, namely micro versus macro influencers, affect engagement levels, as well as how brands can leverage user-generated content to foster a sense of authenticity and community among consumers. This area of research is particularly relevant as consumers increasingly value transparency and peer recommendations in their purchasing decisions.

Different s-commerce platforms, from Instagram and TikTok to specialized shopping apps, offer distinct features that shape the CE behaviors. Future research could focus on how platform-specific elements, such as live streaming, interactive polls, and limited-time promotions, influence CE. For example, live-streamed shopping events create a sense of immediacy and community, potentially leading to higher engagement levels compared to traditional shopping channels. Understanding the unique contributions of these features could guide brands in choosing the most effective platforms and tools for engaging consumers.

VI. CONCLUSION

This literature review synthesizes existing research on Customer Engagement (CE) in social commerce (s-commerce), covering the theoretical foundations, antecedents, mediators, moderators, and outcomes of CE. The theoretical framework shows that the mutual value, individual pleasure, and platform stimulation factors affect CE. Effective engagement approaches must incorporate social, technical, and emotional factors, such as social support, platform interaction, and hedonic motivation. Mediators and moderators demonstrate how trust, satisfaction, and demographics influence CE. The latter promotes business growth and digital brand communities through brand loyalty, Word-of-Mouth (WoM), co-creation, and customer behavior citizenship. A complex interaction of theoretical, environmental, and psychological factors supports CE in s-commerce as a strategic advantage. For practitioners, these insights emphasize the need to integrate functional, social, and emotional elements into engagement strategies to foster meaningful consumer relationships. The current review's limitations underscore the necessity for further research into evolving engagement technologies, cultural differences, ethical concerns, and platform-specific dynamics. By addressing these areas, future research can build a more comprehensive understanding of CE in s-commerce, enabling brands to develop innovative, ethical, and culturally sensitive engagement strategies in an increasingly digital world.

REFERENCES

- [1] S.-E. Chong, S.-I. Ng, N. K. Basha, and X.-J. Lim, "Social commerce in the social media age: understanding how interactive commerce enhancements navigate app continuance intention," *Journal of Research in Interactive Marketing*, vol. 18, no. 5, pp. 865–899, May 2024, <https://doi.org/10.1108/JRIM-01-2024-0047>.
- [2] S.-E. Chong, S.-I. Ng, N. B. K. Basha, and X.-J. Lim, "How do I deal with complex social commerce landscape? Understanding continuance intention using approach and avoidance motivations model," *Aslib Journal of Information Management*, Jun. 2024, <https://doi.org/10.1108/AJIM-10-2023-0421>.
- [3] W. M. Lim and T. Rasul, "Customer engagement and social media: Revisiting the past to inform the future," *Journal of Business Research*, vol. 148, pp. 325–342, Sep. 2022, <https://doi.org/10.1016/j.jbusres.2022.04.068>.
- [4] A. Jessen *et al.*, "The playground effect: How augmented reality drives creative customer engagement," *Journal of Business Research*, vol. 116, pp. 85–98, Aug. 2020, <https://doi.org/10.1016/j.jbusres.2020.05.002>.
- [5] R. Sallaku and V. Vigolo, "Predicting customer loyalty to Airbnb using PLS-SEM: the role of authenticity, interactivity, involvement and customer engagement," *The TQM Journal*, vol. 36, no. 5, pp. 1346–1368, Dec. 2022, <https://doi.org/10.1108/TQM-12-2021-0348>.
- [6] S. F. Salem and A. B. Alanadoly, "Driving customer engagement and citizenship behaviour in omnichannel retailing: evidence from the fashion sector," *Spanish Journal of Marketing - ESIC*, vol. 28, no. 1, pp. 98–122, Oct. 2023, <https://doi.org/10.1108/SJME-10-2022-0220>.
- [7] I. Nahum-Shani, S. D. Shaw, S. M. Carpenter, S. A. Murphy, and C. Yoon, "Engagement in digital interventions," *American Psychologist*, vol. 77, no. 7, pp. 836–852, 2022, <https://doi.org/10.1037/amp0000983>.
- [8] M. Barari, M. Ross, S. Thaichon, and J. Surachartkumtonkun, "A meta-analysis of customer engagement behaviour," *International Journal of Consumer Studies*, vol. 45, no. 4, pp. 457–477, 2021, <https://doi.org/10.1111/ijcs.12609>.
- [9] H.-T. Tseng, M. Shanmugam, P. Magalingam, S. Shahbazi, and M. S. Featherman, "Managing enterprise social media to develop consumer trust," *British Food Journal*, vol. 124, no. 12, pp. 4626–4643, Feb. 2022, <https://doi.org/10.1108/BFJ-11-2020-0995>.
- [10] S. Malesev and M. Cherry, "Digital and social media marketing - growing market share for construction SMEs," *Construction Economics and Building*, vol. 21, no. 1, pp. 65–82, May 2021, <https://doi.org/10.3316/informit.747666622867324>.
- [11] J. Gao *et al.*, "Mental health problems and social media exposure during COVID-19 outbreak," *PLOS ONE*, vol. 15, no. 4, Apr. 2020, Art. no. e0231924, <https://doi.org/10.1371/journal.pone.0231924>.
- [12] M. Y. Bhattu, M. A. Khan, C. Sun, S. Hashim, and H. T. Khan, "Factors affecting repurchase intention of organic food among generation Z (Evidence from developing economy)," *PLOS ONE*, vol. 18, no. 3, Mar. 2023, Art. no. e0281527, <https://doi.org/10.1371/journal.pone.0281527>.
- [13] N. Rosli, E. R. Johar, M. L. H. B. M. Lazim, S. Hashim, and N. F. Juhari, "From Hearts to Carts: Understanding the Impact of Comments, Likes, and Share Functions on Consumer Purchase Intentions in a Social Media Landscape," *European Journal of Sustainable Development*, vol. 13, no. 2, pp. 46–62, Jun. 2024, <https://doi.org/10.14207/ejsd.2024.v13n2p46>.
- [14] N. A. Alabdulkarim, M. A. Haq, and J. Gyani, "Exploring Sentiment Analysis on Social Media Texts," *Engineering, Technology & Applied Science Research*, vol. 14, no. 3, pp. 14442–14450, Jun. 2024, <https://doi.org/10.48084/etasr.7238>.
- [15] N. Sureja, N. Chaudhari, P. Patel, J. Bhatt, T. Desai, and V. Parikh, "Hyper-tuned Swarm Intelligence Machine Learning-based Sentiment Analysis of Social Media," *Engineering, Technology & Applied Science Research*, vol. 14, no. 4, pp. 15415–15421, Aug. 2024, <https://doi.org/10.48084/etasr.7818>.
- [16] N. Rosli, E. R. Johar, M. L. H. B. M. Lazim, S. Hashim, and N. F. Juhari, "Who's the Winner? A Comparative Study of Like, Comment and Share Functions in Consumers' Purchase Intention between Facebook and Instagram," *Institutions and Economics*, vol. 16, no. 4, pp. 139–166, Oct. 2024, <https://doi.org/10.22452/IJIE.vol16no4.5>.
- [17] E. Ahmed, H. Ak Entebang, S. Kit Yeng, S. Hashim, H. Muhammad, and R. Irfan Sabir, "Impact of Value Co-creation Behavior among Banking Customers of Pakistan," *International Journal of Academic Research in Business and Social Sciences*, vol. 13, no. 10, pp. 1–19, Oct. 2023, <https://doi.org/10.6007/IJARBS/v13-i10/18468>.
- [18] F. Ahmad *et al.*, "Online Customer Experience Leads to Loyalty via Customer Engagement: Moderating Role of Value Co-creation," *Frontiers in Psychology*, vol. 13, Jul. 2022, Art. no. 897851, <https://doi.org/10.3389/fpsyg.2022.897851>.
- [19] Y. Huang, X. Zhang, and H. Zhu, "How do customers engage in social media-based brand communities: The moderator role of the brand's country of origin?," *Journal of Retailing and Consumer Services*, vol. 68, Sep. 2022, Art. no. 103079, <https://doi.org/10.1016/j.jretconser.2022.103079>.
- [20] M. A. Haq and M. Alshehri, "Insider Threat Detection Based on NLP Word Embedding and Machine Learning," *Intelligent Automation and Soft Computing*, vol. 33, pp. 619–635, Jan. 2022, <https://doi.org/10.32604/iasc.2022.021430>.
- [21] L. Vs, J. J. K., and T. Tijo, "Customer engagement – A Literature Review," *Journal of Tianjin University Science and Technology*, vol. 54, no. 10, pp. 487–499, 2021, <https://doi.org/10.17605/OSF.IO/EHFMQ>.
- [22] M. Srivastava and S. Sivaramakrishnan, "A bibliometric analysis of the structure and trends of customer engagement in the context of international marketing," *International Marketing Review*, vol. 39, no. 4, pp. 836–851, Feb. 2022, <https://doi.org/10.1108/IMR-06-2021-0204>.
- [23] H. Omar Zaki, N. A. Omar, S. Hashim, Y. Kamarulzaman, and S. Lada, "Talk to engage: The influence of smartphone voice assistants on consumers' brand engagement," *Journal of Global Scholars of Marketing Science*, vol. 34, no. 4, pp. 584–608, Oct. 2024, <https://doi.org/10.1080/21639159.2024.2362660>.
- [24] X. Ye, R. Hou, S. Wang, and N. A. B. Omar, "Social media, relationship marketing and corporate ESG performance," *Finance Research Letters*, vol. 63, May 2024, Art. no. 105288, <https://doi.org/10.1016/j.frl.2024.105288>.
- [25] Z. Zhao, N. A. Omar, and H. O. Zaki, "Appraisal factors of sustainable purchase intentions in online shopping platform context: PLS-SEM with theory extensions," *Journal of Retailing and Consumer Services*, vol. 82, Jan. 2025, Art. no. 104118, <https://doi.org/10.1016/j.jretconser.2024.104118>.
- [26] M. Blut, V. Kulikovskaja, M. Hubert, C. Brock, and D. Grewal, "Effectiveness of engagement initiatives across engagement platforms: A meta-analysis," *Journal of the Academy of Marketing Science*, vol. 51, no. 5, pp. 941–965, Sep. 2023, <https://doi.org/10.1007/s11747-023-00925-7>.
- [27] S. Hu, U. Akram, F. Ji, Y. Zhao, and J. Song, "Does social media usage contribute to cross-border social commerce? An empirical evidence from SEM and fsQCA analysis," *Acta Psychologica*, vol. 241, Nov. 2023, Art. no. 104083, <https://doi.org/10.1016/j.actpsy.2023.104083>.
- [28] P. Parihar, J. Dawra, and V. Sahay, "The role of customer engagement in the involvement-loyalty link," *Marketing Intelligence & Planning*, vol. 37, no. 1, pp. 66–79, Sep. 2018, <https://doi.org/10.1108/MIP-11-2017-0318>.
- [29] Y. S. Ali and A. R. C. Hussin, "Electronic Word of Mouth Engagement Model in Social Commerce," in *International Conference of Reliable Information and Communication Technology*, Johor, Malaysia, Sep. 2019, pp. 985–994, https://doi.org/10.1007/978-3-319-99007-1_91.
- [30] A. H. Busalim, A. R. C. Hussin, N. A. Iahad, A. H. Busalim, A. R. C. Hussin, and N. A. Iahad, "Factors Influencing Customer Engagement in Social Commerce Websites: A Systematic Literature Review," *Journal of theoretical and applied electronic commerce research*, vol. 14, no. 2, pp. 1–14, 2019, <https://doi.org/10.4067/S0718-18762019000200102>.
- [31] R. G. Bilro and S. M. C. Loureiro, "A consumer engagement systematic review: synthesis and research agenda," *Spanish journal of marketing-ESIC*, vol. 24, no. 3, pp. 283–307, 2020.
- [32] C. Liew and S. Lian, "Customer Engagement in Social Media and Purchase Intentions in the Hotel Industry," *International Journal of Academic Research in Business and Social Sciences*, vol. 9, no. 1, pp. 54–68, Jan. 2019, <https://doi.org/10.6007/IJARBS/v9-i1/5363>.

- [33] A. Wongkitrungrueng and N. Assarut, "The role of live streaming in building consumer trust and engagement with social commerce sellers," *Journal of Business Research*, vol. 117, pp. 543–556, Sep. 2020, <https://doi.org/10.1016/j.jbusres.2018.08.032>.
- [34] F. de Oliveira Santini, W. J. Ladeira, D. C. Pinto, M. M. Herter, C. H. Sampaio, and B. J. Babin, "Customer engagement in social media: a framework and meta-analysis," *Journal of the Academy of Marketing Science*, vol. 48, no. 6, pp. 1211–1228, Nov. 2020, <https://doi.org/10.1007/s11747-020-00731-5>.
- [35] B. Pradhan, K. Kishore, and N. Gokhale, "Social media influencers and consumer engagement: A review and future research agenda," *International Journal of Consumer Studies*, vol. 47, no. 6, pp. 2106–2130, 2023, <https://doi.org/10.1111/ijcs.12901>.
- [36] R. Connolly, O. Sanchez, D. Compeau, and F. M. de S. Tacco, "Understanding Engagement in Online Health Communities: A Trust-Based Perspective," *Journal of the Association for Information Systems*, vol. 24, no. 2, pp. 345–378, Jan. 2023, <https://doi.org/10.17705/1jais.00785>.
- [37] R. B. Kline, *Principles and Practice of Structural Equation Modeling, Fourth Edition*. New York, NY, USA: Guilford Press, 2015.
- [38] X.-J. Lim, J.-H. Cheah, D. S. Waller, H. Ting, and S. I. Ng, "What s-commerce implies? Repurchase intention and its antecedents," *Marketing Intelligence & Planning*, vol. 38, no. 6, pp. 760–776, Oct. 2019, <https://doi.org/10.1108/MIP-03-2019-0145>.
- [39] C. H. Lee, C. W. Chen, W. K. Chen, and K. H. Lin, "Analyzing the Effect of Social Support and Customer Engagement on Stickiness and Repurchase Intention in Social Commerce: A Trust Transfer Perspective," *Journal of Electronic Commerce Research*, vol. 22, no. 4, pp. 363–381, 2021.
- [40] A. H. Busalim, F. Ghabban, and A. R. C. Hussin, "Customer engagement behaviour on social commerce platforms: An empirical study," *Technology in Society*, vol. 64, Feb. 2021, Art. no. 101437, <https://doi.org/10.1016/j.techsoc.2020.101437>.
- [41] N. Tran-Danh, H. Tran-Thi-Phuong, and A. Nguyen-Thi-Ngoc, "The Role of Immersion and Presence in Building Customer Engagement in Social Commerce Livestreaming: An Empirical Study in Vietnamese Context," in *Proceedings of the International Conference on Management and Business 2021*, 2021, pp. 440–450.
- [42] S. Molinillo, R. Anaya-Sanchez, and F. Liebana-Cabanillas, "Analyzing the effect of social support and community factors on customer engagement and its impact on loyalty behaviors toward social commerce websites," *Computers in Human Behavior*, vol. 108, Jul. 2020, Art. no. 105980, <https://doi.org/10.1016/j.chb.2019.04.004>.
- [43] M. Song, L. Qiao, and R. Law, "Formation path of customer engagement in virtual brand community based on back propagation neural network algorithm," *International Journal of Computational Science and Engineering*, vol. 22, no. 4, pp. 454–465, Jan. 2020, <https://doi.org/10.1504/IJCSE.2020.109405>.
- [44] S. Qiao and J. Wei, "Research on the Factors Affecting Customer Engagement in Social Commerce from the Perspective of Two-Factor Theory: -- Platform Comparison Between E-Commerce and Social Media," *Frontiers in Business, Economics and Management*, vol. 1, no. 3, pp. 8–13, Jun. 2021, <https://doi.org/10.54097/fbem.v1i3.22>.
- [45] D. Novita and A. P. Budiarti, "Perceived security, trust, privacy, and continuance intention of e-commerce customer," *Operations Management and Information System Studies*, vol. 2, no. 1, 2022.
- [46] S. K. Roy, G. Singh, S. Sadeque, P. Harrigan, and K. Coussement, "Customer engagement with digitalized interactive platforms in retailing," *Journal of Business Research*, vol. 164, Sep. 2023, Art. no. 114001, <https://doi.org/10.1016/j.jbusres.2023.114001>.