

A Systematic Literature Review and Bibliometric Analysis of Green Marketing Communication and Customer Experience in Digital Banking Adoption

*Green Marketing and
Customer Experience in
Digital Banking*

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ABSTRACT

The rapid growth of digital banking is accompanied by an increasing focus on sustainability and customer-driven innovation. Green marketing communications and customer experience are considered important in influencing perceptions and adoption, yet their relationship remains largely unexplored. This study aims to investigate the contribution of sustainable marketing communications and customer experience to digital banking adoption. The method used was a systematic literature review with a qualitative approach. Data were collected from peer-reviewed articles in Scopus between 2020 and 2025 through a keyword strategy and multi-stage filtering, resulting in 10 relevant articles. Analysis was conducted through a thematic synthesis and bibliometric mapping approach. The results show that green communications increase trust and ethical perceptions, while customer experience strengthens satisfaction, usability, and loyalty. Both interact to create a synergistic effect in accelerating adoption. Consequently, integrating sustainable communications with optimal customer experience is key to digital banking strategies in the sustainability era. Future research should expand the scope of bibliometric indicators and incorporate a longitudinal perspective to capture the evolving dynamics of adoption.

Keywords: *Bibliometric Analysis, Customer Experience, Customer Loyalty, Customer Trust, Digital Banking, Green Marketing Communications.*

ABSTRAK

Pertumbuhan pesat perbankan digital diiringi meningkatnya perhatian terhadap keberlanjutan dan inovasi berbasis nasabah. Komunikasi pemasaran ramah lingkungan dan pengalaman nasabah dipandang penting dalam memengaruhi persepsi dan adopsi, namun keterkaitan keduanya masih terbatas dieksplorasi. Studi ini bertujuan menyelidiki kontribusi komunikasi pemasaran berkelanjutan dan pengalaman nasabah terhadap adopsi perbankan digital. Metode yang digunakan adalah tinjauan pustaka sistematis dengan pendekatan kualitatif. Data dikumpulkan dari artikel peer-review di Scopus tahun 2020–2025 melalui strategi kata kunci dan penyaringan multi-tahap, menghasilkan 10 artikel yang relevan. Analisis dilakukan melalui sintesis tematik dan pemetaan bibliometric. Hasil menunjukkan komunikasi ramah lingkungan meningkatkan kepercayaan dan persepsi etika, sementara pengalaman nasabah memperkuat kepuasan, kegunaan, dan loyalitas. Keduanya berinteraksi menciptakan efek sinergis dalam mempercepat adopsi. Implikasinya, integrasi komunikasi berkelanjutan dengan pengalaman nasabah yang optimal menjadi kunci strategi perbankan digital di era keberlanjutan. Penelitian di

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INTRODUCTION

The rapid advancement of digital technologies over the past two decades has fundamentally transformed various industries, including the banking sector. The emergence of Financial Technologies (Fintech) and digital banking has revolutionized how consumers interact with financial services, replacing conventional face-to-face transactions with faster, more efficient, and platform-based digital processes. This transformation is not limited to technological innovation but also extends to consumer behavior, corporate communication strategies, and sustainability practices that are increasingly demanded in the global market (Syed & Drakshayani, 2025). In such a competitive environment, banks are required to integrate effective marketing communication strategies and deliver superior customer experience in order to accelerate the adoption of digital banking.

Digital banking has become a core strategy for enhancing financial inclusion, operational efficiency, and competitiveness, with adoption accelerating significantly following the COVID-19 pandemic, which prompted rapid digitalization across sectors, including finance (Manoj et al., 2025). Consumers increasingly perform transactions online, supported by personalized and adaptive platform features; however, the success of digital banking depends not only on technological sophistication but also on service communication and customer experience. In contemporary marketing, green marketing communication has emerged as a key approach to attract consumer attention by emphasizing environmental sustainability and social responsibility. In the banking sector, its application strengthens corporate reputation, fosters trust, and promotes long-term loyalty (De Silva et al., 2025), particularly among younger generations who form the primary digital banking user base. Therefore, green marketing communication can serve as a strategic differentiator that adds value to digital banking in a competitive global context.

In addition to marketing communication, customer experience is recognized as a crucial factor influencing digital banking adoption. It encompasses not only direct interactions with digital platforms but also users' perceptions of ease of use, convenience, personalization, security, and the emotional value derived from engagement (Mariam et al., 2025). Research indicates that positive customer experiences enhance adoption intentions, satisfaction, and loyalty, whereas negative experiences diminish trust and hinder the acceptance of new financial technologies. Effective management of customer experience is therefore essential for promoting successful adoption and sustained use of digital banking services. The interaction between green marketing communication and customer experience represents a significant area of study in the context of digital transformation. While green marketing enhances perceptions of sustainability and corporate social responsibility, superior customer experiences ensure smooth, convenient, and valuable platform interactions. Together, these factors are believed to accelerate digital banking adoption and contribute to the long-term sustainability of the banking sector (Mishra et al., 2024; Gupta & Srivastava, 2025).

Nevertheless, despite the growing body of research on digital banking, marketing communication, and customer experience, studies that comprehensively integrate these three dimensions remain scarce. Existing literature tends to be fragmented, with some studies focusing exclusively on technological aspects, others emphasizing user experience, and only a few examining green marketing communications in the financial services context. Such fragmentation hampers the development of a holistic understanding of how green marketing communication and customer experience jointly drive digital banking

adoption. This gap underscores the need for a systematic review that consolidates previous findings, identifies major themes, and highlights research gaps (Bhatnagr et al., 2024). To address this need, the present study employs the Systematic Literature Review (SLR) methodology. The SLR approach enables the collection, evaluation, and synthesis of relevant studies in a structured, transparent, and evidence-based manner. By applying this method, the study seeks to integrate key insights across the body of research, assess publication trends, and provide a coherent narrative on the role of green marketing communication and customer experience in digital banking adoption. Moreover, bibliometric analysis is incorporated to map the evolution of publications, identify dominant topics, and explore collaboration networks among scholars and institutions contributing to this field.

This study focuses on literature published between 2020 and 2025, a period that reflects the accelerated digitalization of banking services following the COVID-19 pandemic. The selection of this time frame allows for capturing the most recent trends, technological developments, and consumer behavior patterns within digital banking adoption. By analyzing peer-reviewed articles indexed in Scopus, this research aims to present a comprehensive synthesis of how green marketing communication and customer experience contribute to the success of digital banking. The purpose of this study is to conduct a systematic literature review and bibliometric analysis of scientific publications discussing the role of green marketing communications and customer experience in driving digital banking adoption. This research focuses on examining how these two aspects, both collectively and interactively, contribute to increased digital banking adoption in the 2020–2025 period.

LITERATURE REVIEW

Digital Banking Adoption

The literature on digital banking adoption is predominantly anchored in established technology acceptance frameworks, with the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) serving as the most frequently applied theoretical foundations (Sathwika et al., 2024; Riandi et al., 2024; Sikarwar et al., 2025). These models consistently identify perceived usefulness, perceived ease of use, trust, perceived security, and social influence as core predictors of adoption intention and actual usage. Recent extensions have incorporated hedonic motivation, habit, price value, and perceived risk, particularly among younger cohorts (Generation Y and Z) who treat digital banking as an integral part of lifestyle and self-expression (Windasari et al., 2022; Bhatnagr & Rajesh, 2025). The COVID-19 pandemic acted as a powerful exogenous shock that dramatically accelerated adoption worldwide by increasing reliance on contactless services and reinforcing the centrality of trust and perceived risk in consumer decision-making (Hlawiczka & Tung, 2024; Manoj et al., 2025).

While technology acceptance models have successfully explained functional and risk-related drivers, they exhibit notable limitations in capturing holistic customer experience and sustainability-related motivations. In developing economies, socio-economic barriers such as device affordability, internet infrastructure, and digital literacy continue to moderate adoption rates significantly (Jibril et al., 2020; Bhatnagr et al., 2024), whereas in developed markets the focus has shifted toward experiential and value-aligned factors. Despite the maturity of adoption research, green marketing communication and comprehensive customer experience constructs remain largely absent or treated only peripherally within mainstream adoption frameworks. This fragmentation creates a clear theoretical and empirical gaps, as most studies still prioritize technological and behavioral variables while under-exploring how sustainability narratives and superior experiential quality jointly shape adoption intentions in the current era of conscious consumerism.

Customer Experience

Customer Experience (CX) has become a central driver of digital banking adoption in recent literature. Moving beyond transactional perspectives, CX is now viewed holistically, encompassing usability, personalization, emotional engagement, security, and overall brand interaction. Research shows that superior CX mediates the link between technological features and outcomes such as satisfaction, trust, and loyalty, even advanced functionalities fail without positive lived experiences (Park et al., 2024; Mariam et al., 2025). Innovative cues like gamification, augmented reality, and value co-creation significantly strengthen emotional resonance and long-term loyalty, especially among younger users. While functional and mechanical attributes consistently enhance satisfaction across segments, humanistic cues show weaker influence in purely digital contexts (Dağaşaner & Karaatmaca, 2025). Notably, most CX studies remain disconnected from sustainability discourse, rarely exploring how green marketing communication can moderate or amplify experiential perceptions, leaving a critical gap in understanding their combined effect on adoption behavior (Huang & Chiu, 2024).

Furthermore, personalization is increasingly recognized as a critical factor in shaping customer experience. Tailored recommendations, adaptive interfaces, and predictive financial insights not only improve perceived convenience but also strengthen trust and loyalty (Kazmi et al., 2025; Sipos, 2025). Emotional engagement through interactive dashboards, notifications, and gamified challenges can further enhance user satisfaction and motivate continued use (Ilyas et al., 2022). The literature emphasizes that customer experience is a key determinant of digital banking adoption, serving as the link between technological features and long-term customer loyalty. Effective customer experience management requires integrating functional efficiency, emotional engagement, and personalized interactions to create meaningful and sustainable user experiences.

Green Marketing and Sustainability in Banking Communication

Banking institutions increasingly embed Environmental, Social, and Governance (ESG) narratives into their branding and service strategies, often leveraging green finance products as visible markers of commitment. Literature shows that transparent communication of sustainability initiatives not only improves public perception but also enhances customer trust and willingness to adopt digital banking platforms when such platforms are framed as environmentally responsible (Leong et al., 2024; Bursan, 2024). Green marketing communication, when aligned with customer experience, creates a double effect, it signals institutional responsibility while simultaneously resonating with eco-conscious consumer values. This is particularly relevant in regions where environmental awareness is becoming a decisive factor in consumer decision-making. Integrating these three strands reveals a theoretical and practical gap. While research on digital banking adoption extensively documents usability and trust factors, it seldom integrates green marketing communication as a determinant of adoption. However, this linkage is still underdeveloped, creating opportunities for future inquiry to clarify mechanisms by which sustainability narratives interact with digital experience to drive adoption.

The convergence of digital transformation and customer-centric models has transformed digital banking from a purely technical innovation into a social and environmental proposition. Banks are now expected to deliver seamless, secure services while actively communicating their commitment to societal goals such as climate action and financial inclusion. Literature shows that credible sustainability alignment creates a strong reputational premium, enhances brand loyalty, and provides competitive differentiation, effects that are particularly powerful in the banking sector due to historically low consumer trust (Adha & Utami, 2021; Susanto et al., 2022; Wu et al., 2023). However, research on Green Marketing Communication (GMC) in digital banking remains scarce, with few studies exploring its interaction with customer experience or its varying impact across regions and generations (Afiftama et al., 2024). In summary, GMC significantly boosts trust, satisfaction, and social credibility; when combined with superior

customer experience, it offers banks a strategic pathway to meet rising environmental expectations while strengthening loyalty and market positioning.

RESEARCH METHODS

From a methodological standpoint, prior research relies predominantly on survey-based Structural Equation Modeling (SEM), case studies, or experimental designs. While these methods offer valuable insights, they also fragment the evidence base, making it difficult to discern broader patterns. Systematic literature reviews and bibliometric approaches provide a stronger methodological contribution by consolidating findings across contexts and uncovering intellectual structures within the field. For example, bibliometric analyses of financial technology research have revealed clusters around trust, innovation, and consumer behavior, but few extend this mapping to sustainability-linked drivers of adoption. By integrating bibliometric evidence with systematic review insights, researchers can clarify not only what is known but also where the literature remains silent.

This study employs a Systematic Literature Review (SLR) methodology, rigorously aligned with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) protocol, to investigate the intersection between green marketing communication and customer experience as drivers of digital banking adoption. The review relies exclusively on peer-reviewed journal articles indexed in the Scopus database, thereby excluding empirical field methods such as surveys, interviews, or focus group discussions. This strict reliance on published academic sources ensures methodological transparency, scholarly rigor, and reproducibility in accordance with international publishing standards. The SLR process followed the four sequential stages of identification, screening, eligibility, and inclusion, each of which progressively refined the dataset to yield a final corpus of literature for analysis, as outlined in Figure 1.

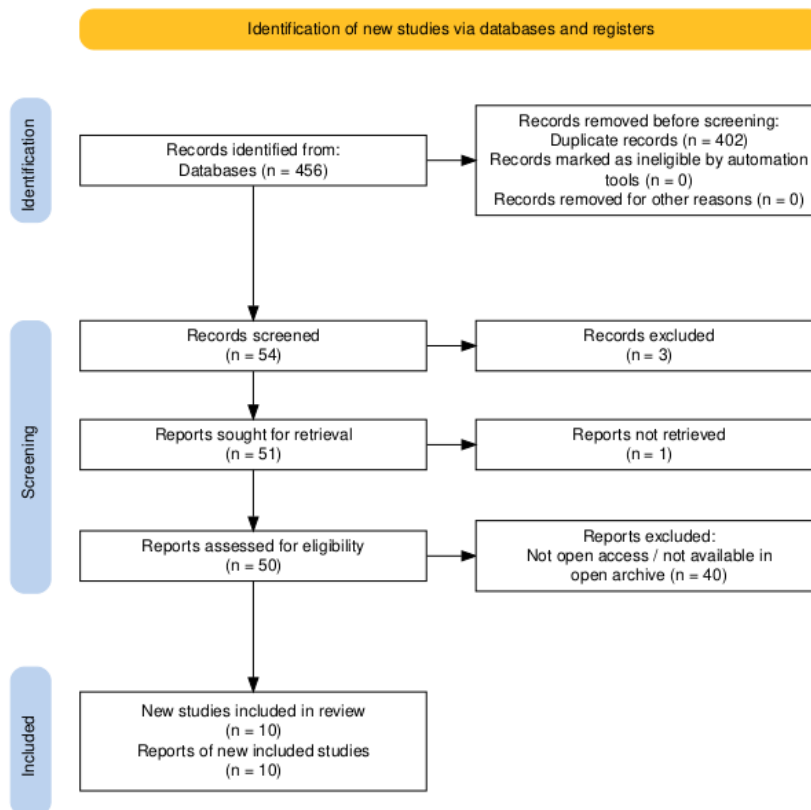


Figure 1. Systematic Literature Review Process Based on the PRISMA Protocol

Figure 1 illustrates the systematic procedure through which relevant studies were identified and selected. The process commenced with a broad keyword search digital banking AND customer experience, which generated 456 publications. To enhance

thematic focus, the search was further refined using the Boolean string (“digital banking” OR “online banking”) AND (“customer experience” OR “user experience”) AND (“adoption” OR “acceptance” OR “intention”). This refinement excluded 402 records that fell outside the scope of the study, leaving 54 potentially relevant publications. In the screening stage, a temporal filter was applied to capture recent scholarship between 2020 and 2025, which led to the removal of three articles published outside this range, resulting in 51 records. During the eligibility stage, non-English language publications were excluded, and one article was removed, leaving 50 eligible studies. Finally, accessibility was imposed as the decisive inclusion criterion. Only open-access and open archive publications were retained for analysis, leading to the exclusion of 40 restricted-access articles. Consequently, 10 peer-reviewed studies satisfied all selection criteria and constituted the final dataset for in-depth review and bibliometric mapping

All selected articles were systematically organized using Mendeley Reference Manager, which facilitated citation accuracy, metadata management, and structured classification of the dataset. The final corpus of 10 studies provides the analytical foundation of this review, offering insights into how green marketing communication strategies and customer experience dynamics jointly influence digital banking adoption. This evidence-based synthesis enables the identification of conceptual patterns, research gaps, and theoretical opportunities, while also informing future directions for sustainable digital banking practices.

RESULTS

A Systematic Literature Review

The systematic review identified ten peer-reviewed articles published between 2020 and 2025 that address the intersections of green marketing communication, customer experience, and digital banking adoption. Table 1 presents an overview of the final dataset, followed by an in-depth narrative synthesis of the key findings.

Table 1. Summary of Articles on Green Marketing, Customer Experience, and Digital Banking

No.	Author / Year	Title	Research Result
1.	Dağaşaner and Karaatmaca (2025)	The role of online banking service cues in enhancing individual and corporate customers' satisfaction: The mediating role of customer experience as a corporate social responsibility	Analysis demonstrated that functional service cues improve satisfaction only for individual customers, while mechanic cues enhance satisfaction for both individual and corporate users. Humanic cues had no significant effect, and customer experience did not mediate the relationship between service cues and satisfaction. Demographic factors, such as age and user type, influenced these outcomes, highlighting the need to prioritize functional and mechanical aspects in digital banking to support satisfaction and sustainable development.
2.	Butt et al. (2024)	Augmented reality is the new digital banking-AR brand experience impact on brand loyalty	The study found that the Augmented Reality (AR) brand experience had a stronger positive impact on unmarried consumers compared to married ones. These results suggest that mobile AR applications can enhance customer engagement and loyalty, presenting a promising opportunity for banks in Pakistan to invest in innovative digital technologies.
3	Serdarušić et al. (2024)	Green finance and Fintech adoption services among Croatian online users: how digital transformation and digital awareness increase banking sustainability	The study demonstrated that green finance significantly promotes Fintech adoption and digital awareness, which in turn supports banking sustainability. Digital awareness also mediates the relationship between green finance and Fintech adoption, while digital transformation alone does not directly affect adoption, highlighting the importance of

No.	Author / Year	Title	Research Result
			integrating sustainable finance and enhancing digital awareness in Croatian banks.
4	Ionaşcu et al. (2023)	Unraveling digital transformation in banking: evidence from Romania	The study found that increased digitalization in Romanian banks enhances operational efficiency, customer experience, and competitive advantage, while deeper digital integration correlates positively with financial performance, highlighting both benefits and factors influencing the sector's digital transformation
5	Elareshi et al. (2023)	Understanding the effects of social media marketing on customers' bank loyalty: a SEM approach	This research found that social media marketing significantly enhances online customer loyalty in Jordanian banks, with perceived usefulness strongly influencing electronic word of mouth, informativeness, and social media features, while both perceived usefulness and ease of use shape customers' behavioral intentions toward online banking services.
6	Windasari et al. (2022)	Digital-only banking experience: Insights from Gen Y and Gen Z	This research revealed that, for Generation Y and Z, most factors, such as economic value, ease of use, social influence, firm reputation, features, and rewards, significantly influence the intention to use digital-only banking, while curiosity and promotions have no significant effect. Designing a simple, attractive interface alongside offering rewards and unique features enhances the overall customer experience.
7	Bitkina et al. (2022)	Measuring user-perceived characteristics for banking services: proposing a methodology	The study demonstrated that perceived characteristics of banking services significantly influence customer experience, trust, satisfaction, and continued intention to use offline, online, and ATM services. The validated model can guide banking professionals in enhancing customer loyalty and service usage.
8	Peña-García et al. (2021)	Co-creation of value and customer experience: an application in online banking	Findings indicate that perceived brand knowledge, creativity, and connectivity drive value co-creation, which directly enhances the customer experience in digital banking. Co-creation enables banks to provide personalized products efficiently, improving overall customer engagement and satisfaction.
9	Hung et al. (2021)	Effects of utilitarian and hedonic emotion on the use of online banking services	Findings indicate that positive user experiences with online banking significantly enhance utilitarian emotions, as users focus on successfully completing transactional goals such as wire transfers, highlighting the importance of user satisfaction in shaping post-adoption behaviors.
10	Jibril et al. (2020)	Do socio-economic factors impede the engagement in online banking transactions? Evidence from Ghana	Analysis demonstrated that, among Ghanaian retail bank customers, perceived knowledge gaps and the cost of digital devices hinder engagement in e-banking transactions. Additionally, customer experience with frequent Internet use moderates the impact of knowledge gaps and financial charges on the intention to adopt online banking.

This systematic review highlights the multifaceted role of green marketing communication and customer experience in driving digital banking adoption. Across ten studies spanning Europe, Asia, and Africa, a consistent pattern emerges: customer experience and sustainability-oriented communication critically shape trust, satisfaction, and long-term loyalty in digital banking ecosystems.

Dağaşaner and Karaatmaca (2025) show that functional and mechanical service clues, such as platform reliability and technological infrastructure, significantly affect both individual and corporate customers, while humanic clues, such as interpersonal aspects, have a negligible influence. Customer experience does not mediate these effects, suggesting that technological reliability, reinforced by sustainability communication, is essential for adoption. Butt et al. (2024) extend this by demonstrating that Augmented Reality (AR) enhances adoption, particularly among younger, unmarried consumers, highlighting the value of interactive technologies combined with green narratives to engage tech-savvy demographics. Serdarušić et al. (2024) link green finance initiatives to increased digital awareness in Croatia, which mediates Fintech adoption and banking sustainability. This underscores that technological innovation alone is insufficient; adoption is maximized when coupled with sustainability practices and targeted communication. Similarly, Ionaşcu et al. (2023) report that deeper digitalization improves operational efficiency, customer experience, and financial performance, offering a platform for integrating sustainability messages that reinforce loyalty.

Elareshi et al. (2023) show that social media marketing in Jordan strengthens online loyalty by influencing electronic Word of Mouth (eWOM), informativeness, and behavioral intentions, positioning platforms as channels for embedding green communication. Windasari et al. (2022) reveal that Generation Y and Z prioritize economic value, ease of use, firm reputation, rewards, and features in adoption, suggesting that sustainability-aligned functionalities, like green reward systems, can enhance engagement among younger, environmentally conscious users.

Methodologically, Bitkina et al. (2022) validate a model linking perceptions of banking services to customer experience, trust, satisfaction, and continued usage, providing a framework to assess the tangible impact of sustainability communication. Peña-García et al. (2021) demonstrate that co-creation of value through brand knowledge, creativity, and connectivity enhances customer experience and allows banks to embed eco-consciousness into personalized digital services. Hung et al. (2021) highlight the emotional dimension, showing that positive experiences enhance utilitarian emotions, emphasizing that green narratives must complement, not compromise, platform usability. Jibril et al. (2020) illustrate the moderating role of socio-economic factors in Ghana, where knowledge gaps and device costs limit adoption. Frequent Internet use mitigates these barriers, highlighting that green communication must be inclusive, addressing economic disparities to ensure accessibility while promoting sustainability. These studies indicate that digital banking adoption thrives when customer experience and green marketing communication are integrated, combining technological reliability, innovative experiences, and sustainability-driven engagement. Demographic, contextual, and socio-economic factors modulate these effects, suggesting that banks should design strategies that align functional performance with environmental and social responsibility, fostering adoption, trust, and long-term loyalty across diverse markets.

The ten studies collectively highlight that digital banking adoption is driven by customer experience, shaped by usability, innovative technologies, and co-creation, while green marketing communication and sustainability practices amplify adoption by aligning services with societal values. Evidence across Pakistan, Croatia, Romania, Jordan, Indonesia, and Ghana shows adoption thrives when technological innovation resonates with customer values, particularly environmental sustainability. Research gaps remain, including the limited integration of green marketing communication into digital banking and underexplored socio-economic disparities affecting accessibility, especially in developing countries. Customer experience drives satisfaction, trust, and loyalty, while sustainability communication strengthens these effects. Technological reliability, innovative experiences, digital awareness, and value co-creation are key mechanisms, moderated by demographics, generational preferences, and socio-economic conditions. Integrating usability with sustainability enables banks to enhance adoption and foster competitive, socially responsible digital strategies.

Bibliometric Analysis

The bibliometric analysis revealed that scholarly attention to the intersection of green marketing communication, customer experience, and digital banking adoption has grown steadily between 2020 and 2025. As shown in Figure 2, the number of publications increased gradually from a single article in 2020 to multiple studies in 2024 and 2025, indicating that this research stream is gaining momentum in the academic community.

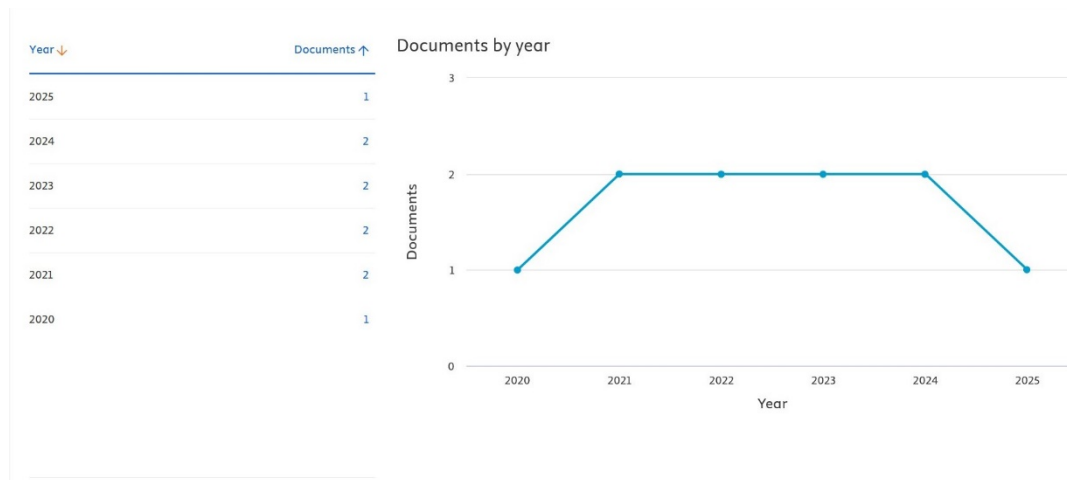


Figure 2. Annual Distribution of Publications on Green Marketing Communication, Customer Experience, and Digital Banking Adoption (2020–2025)

The rising global focus on digital banking demonstrates its expanding role in financial inclusion, sustainability, and technological innovation. Early studies conducted around 2020–2021 primarily examined socio-economic barriers, trust issues, and customer experience as key determinants of digital banking adoption. These studies highlighted challenges such as digital literacy gaps, limited access to technology, and perceived risks, especially in developing economies. Research published in 2022 began to shift toward more nuanced perspectives, incorporating generational differences, cross-country comparisons, and methodological advancements such as integrated structural equation modelling (SEM) and multi-group analysis. During this period, scholars also introduced the concept of value co-creation, emphasizing the interactive role of customers in shaping digital service quality and engagement.

By 2023–2024, the literature increasingly emphasized sustainability and green finance, marking a significant evolution in the field. Digital banking began to be analyzed not only as a technological innovation but also as a platform supporting environmentally responsible behavior. Studies explored how green marketing communication, eco-friendly service design, and sustainability-driven brand narratives influence customer attitudes, trust, and long-term loyalty. This period also saw growing attention to environmentally conscious communication strategies as a critical factor in shaping digital banking adoption, particularly among younger and sustainability-aware customer segments.

Research across diverse regions including Europe, Asia, Africa, and the Middle East employed quantitative surveys, SEM, experimental designs, qualitative interviews, and conceptual frameworks, illustrating the methodological maturity of the field. Although digital transformation in banking is not new, the integration of green marketing communication with customer experience represents an emerging and rapidly expanding area. This trajectory underscores the importance of conducting a comprehensive review to synthesize these evolving insights and to clarify their implications for digital banking adoption and sustainability-oriented financial behavior.

DISCUSSION

This systematic literature review and bibliometric analysis examine how green marketing communication and customer experience jointly influence digital banking adoption from 2020 to 2025. Findings show that green marketing communication and customer experience, while distinct, act as complementary drivers shaping consumer perceptions, trust, and behavioral intentions. The discussion focuses on three aspects: their individual impact, interactive dynamics, and contextual factors affecting effectiveness. The first dimension explores green marketing communication's independent role in digital banking adoption. Consumers respond not only to functional benefits but also to providers' ethical and environmental positioning (Palos-Sanchez et al., 2025). Sustainability communication, through eco-friendly initiatives, carbon-neutral operations, and green finance, builds trust and credibility, enhancing reputation, especially in environmentally conscious markets (Correia et al., 2023). Green marketing communication signals authenticity and responsibility, differentiating banks. Similarly, customer experience drives adoption by shaping evaluations of digital interactions. Elements like usability, personalization, emotional engagement, and service innovation increase intention and loyalty, particularly among younger users (Fathimath & Santhi, 2025). Functional cues such as interface quality, speed, and gamified interactions now redefine the "human touch" in digital contexts, outweighing traditional face-to-face cues (Majeed, 2025).

The second dimension explores interactive dynamics between green marketing communication and customer experience. Their convergence amplifies adoption effects. Green marketing communication frames customer experience as ethically aligned; for instance, marketing paperless transactions or energy-efficient tech makes experiences seem convenient and responsible (Sikarwar et al., 2025). Conversely, strong customer experience lends credibility to green messages, portraying them as authentic. This synergy is mutually reinforcing, not merely additive, shaping value, trust, and legitimacy perceptions. Consumer psychology literature indicates experience enhances communication credibility: seamless, secure services make customers receptive to sustainability narratives as institutional integrity, not gimmicks (Mehta, 2024; Adiga, 2024; Jain, 2025). Poor customer experience marked by glitches, opaque fees, or impersonality risks greenwashing perceptions. Thus, customer experience validates green marketing communication, while green marketing communication magnifies experiential impact, forming a dual pathway of rational functionality and emotional, ethical resonance in decision-making.

The third dimension addresses contextual and temporal contingencies. From 2020 to 2025, COVID-19 accelerated contactless services, heightening corporate responsibility awareness. Banks blending responsive digital services with green narratives appeared adaptive (Hlawiczka & Tung, 2024). Temporal trends show early 2020 studies focusing on usability and security, shifting to sustainability integration by 2025. Bibliometric data confirms the rising centrality of "sustainability," "green finance," and "customer experience" in scholarly networks post-2021, marking a paradigmatic evolution.

Geographically, green marketing communication resonates in developed economies with institutionalized environmentalism, where customer experience is baseline; in developing ones, customer experience prioritizes usability and inclusion, with green marketing communication secondary unless tied to financial access (Bhatnagr & Rajesh, 2025). Demographically, youth respond strongly to both as eco-lifestyle elements, while older groups emphasize trust and security over environmental aspects. These variations necessitate segmented strategies balancing customer experience and green marketing communication. Synthesizing these, green marketing communication and customer experience form a dual-structured adoption model: green marketing communication establishes ethical legitimacy, and customer experience operationalizes it via lived interactions. Their loop green communication enriches experiential meaning, positive experiences validating narratives, and transforms adoption into a socio-environmental choice aligned with values.

This expands adoption frameworks beyond technology acceptance models, integrating sustainability communication with customer experience for value-driven, multidimensional views reflecting modern decisions. Banks must treat them as interdependent: isolated customer experience risks commoditization, lone green marketing communication invites inauthenticity. Align green narratives with seamless delivery for credible branding, tailoring to demographics and geographies, sustainability where awareness peaks, and experience for inclusion elsewhere. Future research should pursue longitudinal studies on evolving joint influences amid deepening environmentalism; cross-cultural comparisons clarifying contextual salience; quantitative meta-analyses quantifying interactive effects; and explorations of AI and blockchain through sustainability-experience lenses, probing perceptual reconfiguration in digital banking.

CONCLUSION

This systematic literature review and bibliometric analysis reveal that green marketing communication and customer experience jointly influence digital banking adoption between 2020 and 2025. Findings indicate that green marketing communication enhances consumer trust and ethical perception by framing digital banking as environmentally responsible, while customer experience ensures high-quality, engaging interactions that support sustainable adoption. Importantly, these factors reinforce each other: green marketing communication amplifies positive perceptions of service, and effective customer experience validates sustainability claims, creating a cycle of trust, credibility, and satisfaction that accelerates adoption.

Contextual factors are significant. In developed markets, green marketing communication strongly influences adoption due to higher environmental awareness, whereas in emerging markets, customer experience is the primary driver, with sustainability as a supporting factor. Demographically, younger consumers are more responsive to both green marketing communication and customer experience, associating digital banking with eco-friendly lifestyles, while older users prioritize reliability and security. Temporally, the relevance of green marketing communication and customer experience has increased post-2020, driven by digitalization and heightened corporate sustainability focus, showing that adoption is shaped not only by technology but also by ethical and experiential considerations. Implications suggest that banks should integrate green marketing initiatives with seamless, user-centred digital experiences to enhance adoption, trust, and long-term engagement. For future research, studies could examine specific mechanisms through which green marketing communication and customer experience interact in different cultural and technological contexts, explore long-term behavioral outcomes, and investigate additional moderating variables such as socio-economic status or digital literacy. Expanding empirical studies across emerging economies would further validate the contextual dynamics identified in this review.

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