

Customer Retention in Digital Banking: A Systematic Review of Loyalty Foundations, Digital Transformation, Service Innovation, and Decision-Support Implications

Lynn-Jay Hendricks

Department of Industrial Engineering
Stellenbosch University
Stellenbosch, South Africa
20249330@sun.ac.za

Michelle Smit

Department of Industrial Engineering
Stellenbosch University
Stellenbosch, South Africa
michellesmit@sun.ac.za

Abstract

This paper presents a systematic literature review of customer retention in the digital banking sector. Based on a PRISMA-guided review of 29 empirical studies, the review synthesises evidence across six interconnected thematic domains: loyalty and relationship marketing foundations; digital transformation and AI; service innovation; customer experience (CX) in digital and omnichannel banking; service quality, trust, and AI-enabled services; and retention value operationalisation and decision-support. The findings demonstrate that customer retention in banking is a multi-dimensional, relationally embedded system comprising attitudinal, behavioural, and value-based dimensions connected through causal pathways. Customer experience functions as the central mediating mechanism through which digital transformation and service innovation initiatives translate into observable retention outcomes. Trust and perceived risk consistently moderate the satisfaction-to-loyalty conversion, operating as non-negotiable threshold conditions in trust-sensitive financial environments. The review identifies a persistent decision gap in the literature: while substantial evidence explains why customers remain loyal, structured mechanisms for prioritising competing retention initiatives remain underdeveloped. Eight evidence-based design requirements for an integrated decision-support customer retention framework are proposed.

Keywords

Customer Retention; Digital Banking; Systematic Review; Customer Experience; Digital Transformation; Service Innovation

1. Introduction

Customer retention represents a critical strategic imperative for the banking industry. Acquiring new customers costs up to five times more than retaining existing ones, and a five-percent increase in retention rates can improve profitability by 25 to 95 percent (Panda, 2002; Thangeda et al., 2024). The strategic importance of retention has intensified as banking undergoes rapid digital transformation. Traditional retail banks face unprecedented competitive pressure from fintech startups, neobanks, and big technology entrants, while simultaneously navigating legacy system modernisation, evolving regulatory requirements, and rising customer expectations for seamless, personalised financial services (Borges et al., 2020).

Open banking initiatives, API integration requirements, and digital literacy expansion have collectively reduced switching barriers, dismantled informational asymmetry, and enabled customers to manage financial relationships across multiple providers through unified platforms. Retention can no longer be secured through structural inertia; it must be earned through continuously differentiated experiential and relational value. Existing customer retention frameworks in banking fall predominantly into three streams: customer value optimisation models; service quality and relationship-based retention approaches; and data-driven or trust-focused analytics systems. No existing model integrates customer experience mechanisms, trust governance constraints, and economic value indicators into a unified decision-support architecture capable of guiding initiative prioritisation.

1.1. Objectives

This systematic review addresses this gap, guided by four objectives: (1) synthesise the conceptual foundations of customer retention across attitudinal, behavioural, and value-based dimensions; (2) examine how digital transformation and service innovation influence retention through CX mediation; (3) analyse the role of trust, service quality, and AI-enabled services in shaping retention outcomes; and (4) distil evidence-based design requirements for an integrated decision-support customer retention framework.

2. Methods

A systematic literature review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2010). The review targeted peer-reviewed empirical studies on customer retention in digital banking published between 2019 and 2025. The 2019 start date was selected to capture the period of accelerated digital banking transformation, including COVID-19-driven shifts in consumer behaviour and the rapid scaling of AI-enabled banking services, which fundamentally altered the digital retention landscape (Smit, 2026). The primary database used for this review was Scopus (Elsevier, 2026), selected for its comprehensive research coverage of peer-reviewed coverage in marketing, information systems, financial services, and management. Scopus indexes leading journals from major academic publishers, providing sufficient breadth across relevant disciplines while limiting duplication that typically arises when combining multiple databases. This single database approach is appropriate given the strong indexing of key journals and the cross-disciplinary nature of the study.

A modular search strategy was employed in line with the four core themes of the study. Each search was constructed using a structured combination of keyword groups, where synonyms within a theme were combined using OR, and the main thematic groups were combined using AND. This ensured both breadth within concepts and precision across concepts. See Table 1 below.

For all searches, a core structure was applied by combining customer retention terms AND banking context terms. Within each thematic module, an additional concept layer was included depending on the focus area. For example, the digital transformation module combined customer retention terms AND digital transformation terms AND banking terms. Similarly, the service innovation module combined customer retention terms AND service innovation terms AND banking terms, while the customer experience module combined customer experience and service quality terms AND customer retention terms AND banking terms.

The decision support module followed the same logic by combining decision support or framework-related terms, AND customer retention terms, AND banking terms. Within each group, multiple related keywords were combined using OR to expand coverage. For instance, the customer retention group included terms such as customer retention, customer loyalty, churn, customer lifetime value, and client retention. The inclusion of the term client broadened the results, and it was used interchangeably with customer throughout the study. The digital transformation group included terms such as digital transformation, digital banking, fintech, and technology adoption. The banking group included terms such as banking, retail banking, and financial services. This OR-based grouping allowed the search to capture variations in terminology across disciplines.

Table 1: Search terms used in the systematic review

Theme	Search terms
Core: Customer retention and loyalty	"customer retention" OR "client retention" OR "customer loyalty" OR "client loyalty" OR "customer churn" OR "client churn" OR "customer attrition" OR "client attrition" OR "customer

	switching" OR "client switching" OR "continuance intention" OR "customer lifetime value" OR "client lifetime value" OR CLV OR "relationship continuity" OR "relationship marketing"
Decision support and frameworks	"decision support" OR "decision support system*" OR DSS OR framework OR model OR "conceptual framework" OR "theoretical framework" OR "management framework" OR "decision model" OR "analytical model" OR "strategic framework" OR antecedent* OR determinant* OR driver* OR factor* OR mechanism*
Digital transformation in banking	"digital transformation" OR digitalization OR digitalisation OR "digital banking" OR "mobile banking" OR "online banking" OR "internet banking" OR fintech OR "financial technology" OR "banking technology*" OR "big data" OR analytics OR "artificial intelligence" OR AI OR automation OR omnichannel
Service innovation	"service innovation" OR "service improvement" OR "service design" OR "service development" OR "new service development" OR NSD OR "innovation in services" OR "service enhancement" OR "digital service innovation"
Customer experience and service quality	"customer experience" OR "client experience" OR "customer experience management" OR "client experience management" OR "customer satisfaction" OR "client satisfaction" OR "service quality" OR SERVQUAL OR "customer journey" OR "client journey" OR "customer engagement" OR "client engagement" OR "digital experience" OR omnichannel
Industry context: Banking and financial services	bank* OR banking OR "retail banking" OR "commercial banking" OR "digital banking" OR "financial services" OR "financial institution*" OR fintech OR "traditional bank*" OR neobank*

Inclusion and exclusion criteria were applied to ensure relevance, quality, and reproducibility. Only English-language, peer-reviewed journal articles and conference proceedings published between 2019 and 2025 were considered for inclusion. Studies were required to employ an empirical research design, including surveys, experiments, secondary data analyses, or predictive modelling approaches, and to address customer retention, loyalty, churn, or related constructs within a digital banking or broader financial services context. A minimum citation threshold was applied as a proxy for scholarly quality and engagement – studies with no citations were excluded, consistent with the approach applied in Smit (2026). Studies were excluded if they were published outside the 2019–2025 window, were not written in English, addressed contexts unrelated to digital banking or customer retention, were opinion pieces, editorials, or book chapters, or were inaccessible in full text. Quality appraisal was conducted during the full-text review stage by assessing each study's methodological rigour, construct operationalisation, and conceptual relevance to the study's objectives. Studies that did not meet minimum standards for empirical design or contextual relevance were excluded at this stage. The specific language, date, and publication-type restrictions, together with the iterative keyword refinement described above, ensured that the final sample was both comprehensive and contextually appropriate.

A structured data extraction protocol was applied to each of the 29 included studies. For each article, the following information was systematically recorded: author(s) and year of publication; geographic context; research methodology; key independent and dependent variables or constructs; primary findings related to customer retention; and the operationalisation of retention outcomes. The coding process followed an inductive-deductive approach: a deductive framework was first established based on the four core thematic areas of the review (loyalty and relationship marketing, digital transformation and AI, service innovation, and customer experience), and inductive coding was applied iteratively to identify emergent sub-themes and construct-level relationships not anticipated in the initial framework. Codes were refined through iterative review until thematic saturation was achieved.

Data synthesis was conducted through a narrative-thematic approach in which findings from individual studies were grouped by thematic domain and cross-referenced to identify convergent and divergent patterns. Causal relationships between constructs were mapped where sufficient empirical evidence permitted, and findings were assessed for their strength, consistency, and contextual applicability to the South African digital banking context.

As illustrated in Figure 1, the initial Scopus search yielded a combined total of 5,111 records across five modular search streams (Stream 1 – Retention Core: $n = 1,962$; Stream 2 – CX + Retention: $n = 1,002$; Stream 3 – Digital Banking: $n = 564$; Stream 4 – Service Innovation: $n = 39$; Stream 5 – DSS / Framework: $n = 1,544$). Following deduplication, 650 duplicate records were removed, yielding 4,461 unique records. A further screening of titles, keywords, and subject area relevance reduced this pool to 1,302 records for detailed abstract and title screening. Of these, 890 were excluded as topically irrelevant, leaving 412 articles for full-text eligibility review. After full-text

assessment, 251 articles were excluded for insufficient relevance to the study's objectives, and 132 were unobtainable, resulting in a final sample of 29 studies included in the synthesis.

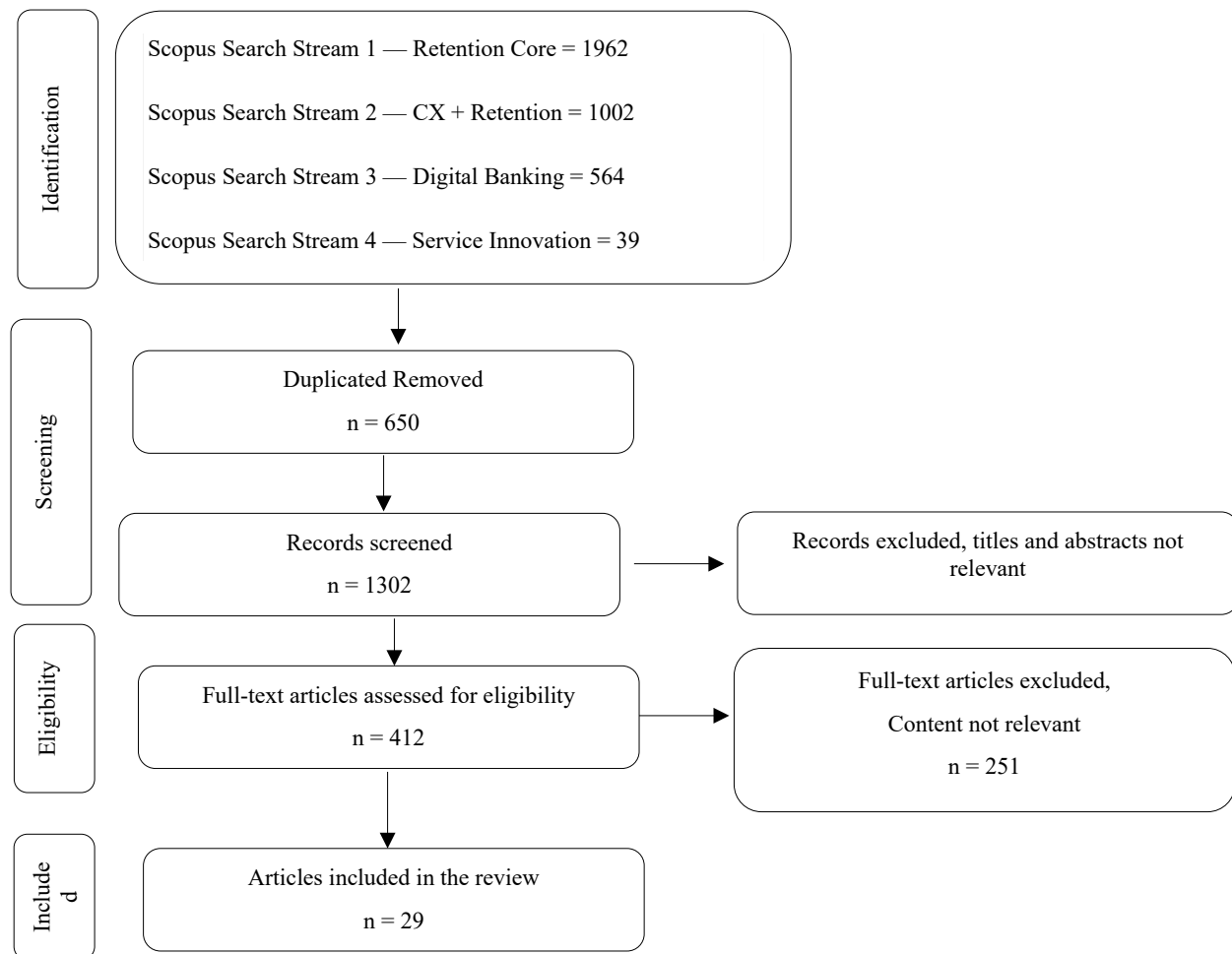


Figure 1. Study selection via the PRISMA flow diagram

3. Results and Discussion

3.1. Descriptive Overview of Included Studies

The 29 included studies were first examined for their methodological profiles, geographic contexts, and operationalisation of retention outcomes. These descriptive findings are presented in Figures 2 through 5, providing the quantitative foundation for the thematic synthesis that follows.

Figure 2 shows that the field is methodologically dominated by cross-sectional survey designs analysed using Structural Equation Modelling (SEM): PLS-SEM accounts for 48% of studies and CB-SEM for 24%, representing a combined 72% of the evidence base. This heavy reliance on perception-based, cross-sectional designs is a structural limitation of the field, as these methods measure stated intentions rather than observed retention behaviour over time. Hybrid SEM–ANN approaches, predictive churn modelling using machine learning, and econometric panel data methods each account for only 7% of studies, indicating that analytically rigorous, behaviour-focused approaches are significantly underrepresented in the retained literature.

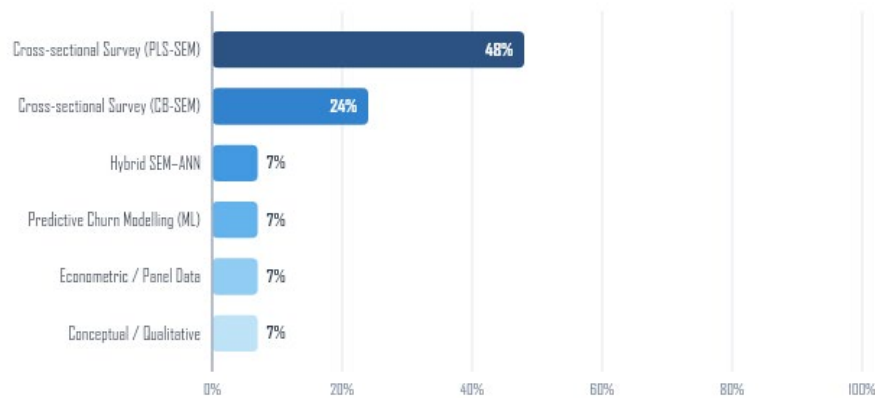


Figure 2: Research methodology distribution across included studies (n = 29)

Figure 3 presents the geographic distribution of included studies. Asia-Pacific contexts dominate the sample at 48% (14 studies), followed by Europe and the UK at 21% (6 studies). Multi-country and global comparative studies account for 17% (5 studies), while Sub-Saharan Africa and the Middle East account for 14% (4 studies). This geographic skew has important implications for generalisation: the majority of empirical findings are generated in high-digital-infrastructure Asian markets that may not directly reflect the conditions of South African retail banking, which is characterised by dual-economy dynamics, POPIA regulatory obligations, and significant digital inequality across customer segments.

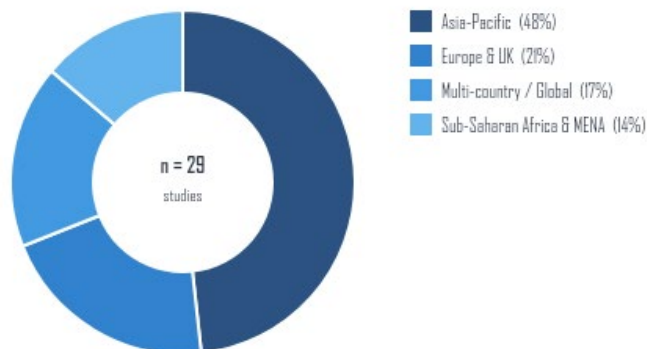


Figure 3: Geographic distribution of included studies (n = 29)

Figure 4 presents the distribution of how customer retention is operationalised across included studies. Loyalty or loyalty intention is the most common operationalisation, used in 45% of studies (13 studies), followed by continuance intention at 24% (7 studies). Observed churn or exit behaviour — the most managerially actionable operationalisation — accounts for only 14% of studies (4 studies), and CLV or value-based outcomes for 7% (2 studies). This distribution confirms a pervasive measurement gap in the literature: the majority of studies measure what customers say they intend to do, not what they actually do, and fewer still link retention to economic outcomes. This has direct implications for the managerial utility of existing frameworks.

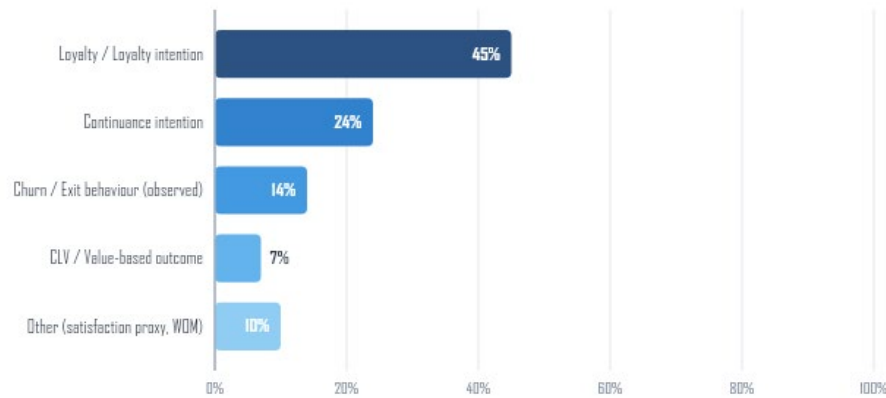


Figure 4: Retention construct operationalisation across included studies (n = 29)

Figure 5 presents the frequency with which key constructs are cited across the 29 included studies. Customer satisfaction is the most widely studied construct (86% of studies), followed by trust (72%), service quality dimensions of reliability and efficiency (62%), and customer experience (55%). Privacy and security concerns appear in 41% of studies, perceived risk in 38%, and digital transformation or AI-enabled service innovation in 34%. Customer lifetime value or other economic value constructs appear in only 17% of studies, confirming the disconnect between the experiential literature and value-based retention measurement. These citation frequencies are directly reflected in the structure of the thematic synthesis that follows.

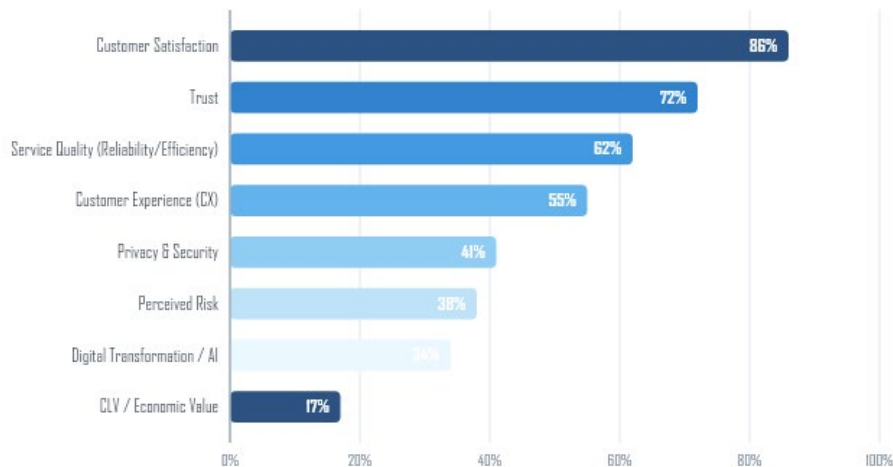


Figure 5. Frequency of key constructs cited across included studies (% of 29 studies)

These descriptive patterns provide the empirical context for the thematic synthesis that follows. The distribution of methods, constructs, and geographic contexts informs the conceptualisation and analysis of customer retention mechanisms across the reviewed literature.

3.2. Loyalty and Relationship Marketing Foundations

3.2.1. Three-Dimensional Retention Architecture

The reviewed literature conceptualises customer retention in banking along three interrelated and causally connected dimensions. The first is attitudinal and intentional: retention is captured through loyalty intention, continuance intention, and positive word-of-mouth propensity, representing forward-looking psychological commitment that precedes observable behaviour (Raza et al., 2020; Chandna and Ubba, 2025). The second dimension is behavioural and observational: retention is operationalised as an empirically observable retain-or-leave decision, most prominently through predictive churn modelling in which customers are classified as Exited or Retained using demographic, transactional, and service-related variables (Galal et al., 2022; 2024). The third dimension is value-based: retention is

linked to sustained economic contribution through CLV, cross-buying behaviour, product holding depth, and share of wallet (Mbama and Ezepue, 2018). These dimensions are not alternatives — they represent sequential layers within a unified retention system. Critically, only 7% of reviewed studies span both the attitudinal and behavioural levels simultaneously, confirming that the fragmentation identified in Figure 4 is not merely a measurement artefact but a structural gap in the evidence architecture.

3.3. Relationship Marketing and Identity-Based Loyalty

Retail banking relationships are characterised by high perceived risk, information asymmetry, and reliance on sustained institutional trust, rendering relationship marketing a foundational retention mechanism. Sayil et al. (2019) demonstrate that relationship quality — shaped by trust, competence, commitment, communication, and conflict handling — is the strongest predictor of loyalty in retail banking, with emotional value exerting a particularly significant influence. In digitally mediated banking, relational mechanisms must be embedded within digital architectures rather than displaced by them. Transparent mobile communications, proactive notifications, secure authentication, and effective digital complaint resolution are digital manifestations of relationship marketing principles; digital transformation reconfigures how relational signals are delivered, not whether they matter (Hussain et al., 2025). Raza et al. (2020) extend this paradigm by demonstrating that CSR initiatives influence loyalty through customer-company identification and co-creation engagement, operating as long-horizon relational investments that complement rather than substitute experience improvements.

3.4. Digital Transformation and AI as Retention Mediators

Across the 34% of studies examining digital transformation and AI-enabled services (Figure 5), a consistent finding emerges: digital transformation influences retention indirectly through three primary pathways — experience enhancement, relationship deepening through product integration, and trust modulation through privacy and governance assurance (Adke et al., 2022; Hussain et al., 2025). A critical paradox underlies these pathways: digital empowerment simultaneously reduces switching costs and lowers informational asymmetry, facilitating multi-banking behaviour. The literature models the retention pathway as a sequence in which digital adoption shapes CX quality, CX influences satisfaction, and satisfaction drives loyalty (Arora and Banerji, 2024; Chauhan et al., 2022). Digital transformation is therefore a mediated pathway, not a direct retention lever.

Hussain et al. (2025) frame AI as both an enabler of service excellence and a governance challenge. Chatbots, fraud detection systems, robotic process automation, and predictive analytics are associated with enhanced responsiveness and personalisation. However, AI simultaneously introduces governance complexities related to data privacy, transparency, and algorithmic accountability. Where AI is perceived as opaque or unfair, trust asymmetries emerge that undermine the relational conditions necessary for retention (Hussain et al., 2026). Perceived risk moderates the satisfaction-to-loyalty relationship (Jaiswal, 2023), and privacy and security concerns — cited in 41% of included studies — directly influence retention decisions (Egala et al., 2021). Digital transformation initiatives must therefore be evaluated along dual criteria: customer-perceived benefit and institutional governance robustness.

3.5. Service Innovation and Customer Experience as Central Retention Mechanisms

Service innovation contributes to retention through performance enhancement, trust signalling, and experience mediation. YuSheng and Ibrahim (2019) demonstrate that innovation contributes to loyalty indirectly through improvements in service delivery quality and satisfaction. Biswas et al. (2022) show that perceived service innovation strengthens satisfaction and trust, while perceived risk weakens the satisfaction-to-loyalty conversion — indicating that innovation benefits are contingent upon institutional credibility. Tiwari (2023), applying a combined SEM–ANN methodology, identifies customer experience as the strongest predictor of loyalty across all innovation-related constructs, confirming that retention value is generated through experience enhancement, not technological novelty.

Cited in 55% of included studies, customer experience (CX) is the most consistently identified mediating construct in the evidence base. Chauhan et al. (2022) frame digital banking CX as the cumulative effect of three service clue categories: functional clues (quality, convenience, and trust), mechanic clues (application design and usability), and humanic clues (complaint handling and relational responsiveness). This demonstrates that digital CX is not reducible to interface usability alone. Mbama and Ezepue (2018) extend this by empirically linking CX to financial performance in UK retail banking, establishing that employee-customer engagement remains significant even in digital-first environments — digital transformation must be embedded within broader organisational service capability. In omnichannel contexts, Chandna and Ubba (2025) demonstrate that utilitarian motivations exert stronger influence on

CX and continuance intention than hedonic motivations: seamless channel switching, consistent information across platforms, and reliable transaction execution are more retention-critical than aesthetic enhancements.

3.6. Service Quality, AI-Enabled Services, and Trust as Retention Determinants

Across multiple service quality models, reliability and efficiency emerge as dominant predictors of satisfaction and retention in digital banking. Cited in 62% of included studies, these dimensions are the most cross-contextually consistent structural retention drivers in the evidence base. Using e-SERVQUAL, Raza et al. (2020) demonstrate that efficiency is the strongest predictor of e-customer satisfaction; Arora and Banerji (2024), applying the RATER model, identify reliability as the dominant driver of CX. Egala et al. (2021) further demonstrate that privacy and security concerns — cited in 41% of studies — significantly influence retention behaviour, establishing trust-related assurances as core value components. Privacy failures can nullify the retention benefits of otherwise high-quality service experiences.

Trust, cited in 72% of included studies, operates not as a peripheral moderator but as a structural conversion condition. Jaiswal (2023) and Biswas et al. (2022) both demonstrate that perceived risk weakens the satisfaction-to-loyalty conversion, while trust strengthens it. Ho et al. (2025) further show that technology readiness moderates loyalty conversion: customer optimism and innovativeness strengthen loyalty outcomes, while discomfort and insecurity attenuate them. Ajouz et al. (2025) additionally demonstrate that FinTech capabilities amplify the retention yield of satisfaction improvements, positioning enabling technologies as multiplier variables within the retention architecture. AI-enabled services — chatbots in particular — are high-leverage but high-sensitivity instruments: intrusiveness operates as a critical negative moderator (Nguyen and Le, 2025), and segment-specific trust cues, such as Shariah compliance in Islamic digital banking contexts, are decisive determinants of satisfaction and loyalty (Suhartanto et al., 2025).

3.7. Retention Value, Predictive Analytics, and Decision-Support Requirements

The reviewed literature supports a four-level retention measurement hierarchy: (1) leading indicators — service quality and CX drivers that precede behavioural change; (2) intermediate attitudinal intentions — satisfaction and loyalty commitment that convert experience perceptions into relational commitment; (3) observed behavioural outcomes — churn status, tenure, and product holding depth modelled through predictive analytics (Galal et al., 2022; 2024); and (4) economic value outcomes — CLV, share of wallet, and cross-product penetration (Mbama and Ezepue, 2018). Critically, only 17% of included studies measure economic value outcomes, confirming that the majority of the evidence base focuses on levels one and two of this hierarchy while leaving the economically consequential levels three and four underspecified.

Predictive churn analytics primarily addresses a targeting question — which customers are most likely to leave — rather than a strategic allocation question: which initiatives should be prioritised to reduce churn sustainably? This distinction is analytically critical. The fragmentation identified across the evidence base constitutes a persistent decision gap: CX studies stop at satisfaction intentions without linking to value indicators; churn models identify risk without specifying improvement mechanisms; governance research identifies feasibility constraints without providing prioritisation logic. To address this gap, eight design requirements emerge from the synthesis, presented in Table 3. These design requirements are inductively derived from cross-study thematic patterns identified in the synthesis.

Table 1 : Evidence-based design requirements for an integrated decision-support customer retention framework

#	Requirement	Evidence Basis
DR1	Layered, journey-based retention construct	Lemon and Verhoef (2016); Becker and Jaakkola (2020)
DR2	Integrated leading-indicator to lagging-outcome chain	Mbama and Ezepue (2018); Galal et al. (2022; 2024)
DR3	Explicit CX mediation structure specified	Arora and Banerji (2024); Tiwari (2023); Chauhan et al. (2022)
DR4	Trust and governance as non-negotiable gating constraints	Egala et al. (2021); Hussain et al. (2025)

DR5	Satisfaction-to-loyalty conversion moderators incorporated	Biswas et al. (2022); Jaiswal (2023); Ho et al. (2025)
DR6	Segmentation and cohort-sensitive design supported	Ho et al. (2025); Suhartanto et al. (2025); Hussain et al. (2026)
DR7	Initiative prioritisation layer (not only churn targeting)	Galal et al. (2022; 2024); Mbama and Ezepe (2018)
DR8	Long-horizon relational and identity-based mechanisms accommodated	Raza et al. (2020); Sayil et al. (2019)

These requirements collectively define the architecture of an Integrated Decision-Support Customer Retention Framework (IDSCRF) that connects initiative selection to CX mediation, behavioural retention outcomes, and economic value measurement, while incorporating governance thresholds, segment-sensitive evaluation criteria, and organisational feasibility constraints.

4. Conclusion

This systematic review synthesised evidence from 29 empirical studies to examine how customer retention is produced, sustained, and measured in digitally transforming banking environments. The descriptive analysis reveals a field dominated by perception-based, cross-sectional SEM designs (72%), with limited incorporation of behavioural data, economic value measurement, or decision-support logic. Geographically, Asia-Pacific contexts represent 48% of the evidence base, with Sub-Saharan Africa and emerging markets underrepresented — a gap of particular relevance to South African banking.

Three robust substantive conclusions emerge from the thematic synthesis. First, customer experience functions as the central mediating mechanism connecting digital transformation and service innovation to retention outcomes; cited in 55% of studies, it is the primary pathway through which operational investments translate into behavioural loyalty. Second, trust and perceived risk operate as structural threshold conditions — cited in 72% of studies — rather than as optional moderators; governance readiness, privacy protection, and security assurance are non-negotiable prerequisites for durable retention. Third, the field exhibits a persistent decision gap: while 86% of studies examine satisfaction and 34% address digital transformation, fewer than 20% link these to economic value outcomes, and none provides an integrated mechanism for prioritising competing retention initiatives under governance and feasibility constraints. The eight design requirements synthesised in this review provide a structured, evidence-grounded foundation for developing an IDSCRF that bridges this gap. Future research should validate these requirements through primary empirical studies, develop and test a formal multi-criteria scoring model for initiative prioritisation, and examine the differential retention impact of specific digital transformation investments across demographic and technology-readiness cohorts in trust-sensitive banking environments.

References

- Abediniyan, H., Mahdavi Azar, A. & Nazemi, E. *Service-Oriented Architecture for Omnichannel Banking*. *Journal of Financial Services Marketing*. 26(3):141–155, 2021.
- Adke, A.D., Bhatia, M. & Dey, A. *Digital Transformation and Customer Experience Management in ASEAN Banking*. *Journal of Retailing and Consumer Services*. 68:103037, 2022.
- Ajouz, M., Abdullah, M.A. & Alazzam, M. *Expectancy-Confirmation, Relationship Marketing, and FinTech Capabilities in Banking Retention*. *International Journal of Bank Marketing*. 43(1):34–58, 2025.
- Arora, N. & Banerji, D. *Service Quality, Customer Experience and Loyalty in Digital Banking*. *International Journal of Bank Marketing*. 42(1):78–98, 2024.
- Biswas, S., Jaiswal, D. & Kant, R. *Service Innovation, Bank Reputation and Perceived Risk in Loyalty Formation*. *Journal of Service Management*. 33(6):795–820, 2022.
- Borges, A.F.S., Laurindo, F.J.B., Spínola, M.M., Gonçalves, R.F. & Mattos, C.A. *The Strategic Use of Artificial Intelligence in the Digital Era*. *Journal of Strategic Information Systems*. 29(4):101596, 2020.
- Chandna, V. & Ubba, A. *Utilitarian and Hedonic Motivations in Omnichannel Banking: Continuance Intention*. *Journal of Retailing and Consumer Services*. 83:103977, 2025.
- Chauhan, S., Banerjee, R. & Banerjee, P. *Digital Banking Experience: Functional, Mechanic and Humanic Clues*. *International Journal of Bank Marketing*. 40(4):762–786, 2022.

- Egala, S.B., Boateng, D. & Aboagye Mensah, S. *To Leave or Retain? Service Quality and Trust in Digital Banking. International Journal of Bank Marketing.* 39(4):615–638, 2021.
- Eshov, M., Tashpulatov, S., Holmatov, B. & Pardayev, A. *Impact of Digital Adoption on Banking Performance. Banks and Bank Systems.* 19(1):14–26, 2024.
- Galal, N.M., Rady, S. & Aref, M. *Customer Churn Prediction in Banking Using Machine Learning. International Journal of Advanced Computer Science and Applications.* 13(5):293–303, 2022.
- Galal, N.M., Rady, S. & Aref, M. *Advanced Ensemble Learning for Churn Prediction in Banking. Expert Systems with Applications.* 238:122156, 2024.
- Ho, C.T.B., Lin, C.H. & Kuo, P.Y. *Technology Readiness as a Moderator of Satisfaction and Loyalty in Digital Banking. Electronic Commerce Research and Applications.* 64:101354, 2025.
- Huang, M., Li, P., Feng, F. & Li, Q. *Mining Voice-of-Customer Data for Digital Banking Service Improvement. Decision Support Systems.* 164:113864, 2023.
- Hussain, A., Bhatt, M.W. & El-Bathly, N. *AI-Driven Digital Transformation in Banking: Governance, Trust and Sustainability. Journal of Open Innovation: Technology, Market and Complexity.* 11(1):100398, 2025.
- Hussain, A., Bhatt, M.W. & El-Bathly, N. *AI Acceptance, Satisfaction and Loyalty in Digital Banking: Demographic Moderation. International Journal of Bank Marketing.* 44(2):201–225, 2026.
- Jaiswal, D. *Trust and Perceived Risk as Moderators of Satisfaction-Loyalty Conversion in Digital Banking. Journal of Retailing and Consumer Services.* 71:103190, 2023.
- Kaur, H., Bhatia, S. & Kapoor, G. *Service Quality and Customer Satisfaction in Digital Banking: Evidence from Northern India. International Journal of Bank Marketing.* 39(3):512–533, 2021.
- Mbama, C.I. & Ezepue, P.O. *Digital Banking, Customer Experience and Financial Performance in UK Retail Banking. International Journal of Bank Marketing.* 36(2):230–255, 2018.
- Moher, D., Liberati, A., Tetzlaff, J. & Altman, D.G. *Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. International Journal of Surgery.* 8(5):336–341, 2010.
- Nguyen, T.M. & Le, A.N.H. *Chatbot Attributes, Dual Value Creation and Intrusiveness in Digital Banking. Journal of Service Theory and Practice.* 35(1):45–68, 2025.
- Panda, T.K. *Customer Relationship Management.* New Delhi: Excel Books, 2002, Available: <https://www.amazon.com/dp/8174464727>.
- Patricia, R., Lee, J. & Chen, Y. *E-Chatbot Service Quality and Communication Credibility in Banking. Information Systems and e-Business Management.* 23(1):89–112, 2025.
- Rahi, S., Khan, M.M. & Alghizzawi, M. *Post-Adoption Continuance Intention in Internet Banking: Trust and Perceived Usefulness. International Journal of Finance and Economics.* 26(4):6159–6172, 2021.
- Raza, A., Rather, R.A., Zia ul Haq, M. & Bhutta, U.S. *CSR, Customer Engagement and Loyalty in Banking. International Journal of Bank Marketing.* 38(6):1388–1406, 2020.
- Sayil, E.M., Akyol, A. & Simsek, G.G. *Relationship Marketing, Customer Value and Loyalty in Retail Banking. Service Industries Journal.* 39(5–6):380–398, 2019.
- Suhartanto, D., Farhani, H., Masud, H. & Setiawan, S. *Shariah Compliance, Trust and Loyalty in Islamic Digital Banking. Journal of Islamic Marketing.* 16(2):456–472, 2025.
- Thangeda, R., Rao, N.R.K. & Lakshminarasimha, A. *Customer Acquisition versus Retention Cost Dynamics in Banking. Journal of Financial Services Marketing.* 29(2):145–162, 2024.
- Tiwari, K. *Service Innovation, Customer Experience and Loyalty: An SEM-ANN Approach in Digital Banking. Journal of Retailing and Consumer Services.* 72:103268, 2023.
- YuSheng, K. & Ibrahim, M. *Service Innovation, Delivery and Customer Satisfaction in Ghanaian Banking. International Journal of Bank Marketing.* 37(5):1215–1233, 2019.

Biographies

Lynn-Jay Hendricks earned a BEng in Industrial Engineering from Stellenbosch University, South Africa, in 2020, and is currently a Master of Engineering Management candidate at the same institution, while serving as a Business Process Engineer at Capitec Bank. Hendricks' research focuses on customer retention in digital banking, examining how customer experience, trust, service innovation, and digital transformation interact to shape attitudinal, behavioural, and value-based retention outcomes. More recently, the work investigates the design of integrated decision-support frameworks that incorporate artificial intelligence, predictive churn analytics, and customer-lifetime-value indicators to guide retention initiative prioritisation under governance and feasibility constraints.

Michelle Smit (PhD) earned her PhD in Innovation and Technology Management from Stellenbosch University, South Africa, in 2023. She completed her BEng (Industrial Engineering) at Stellenbosch University in 2019 and is currently

a lecturer in the Department of Industrial Engineering at the same institution, as well as a Candidate Engineer registered with the Engineering Council of South Africa. Her research focuses on product development, technology adoption, and customer retention within engineering and service-based industries, with particular emphasis on how innovations progress through multiple “Valleys of Death.” More recently, her work explores the role of artificial intelligence in supporting product development processes and engineering customer journeys, including how multidisciplinary teams can leverage AI to improve decision-making, system performance, and customer outcomes. She has co-authored several peer-reviewed journal articles and international conference papers in the fields of engineering management and innovation.