From Click to Relationship: The Transformative Role of At-Purchase E-CRM in Shaping Loyalty

Abdelkader Gam#1, May Oueslati#2, Jilani Habouria#3, Abderrahim Bellil#4

#1*Professor (Assistant). Faculty of Economic Sciences and Management of Nabeul, (FSEGN), Tunisia*

#2*Researcher Student, FSEGN, Tunisia*

#3*Researcher Student. FSEGN, Tunisia*

#4*Researcher Student. FSEGN, Tunisia*

1amgam@icloud.com

2oueslaty4@gmail.com

3jilani.habouria.55@gmail.com

4abderrahimbellil01@gmail.com

Abstract— **This study examines the influence of two electronic customer relationship management (E-CRM) mechanisms payment convenience and privacy & security assurances on customer behavior at the decisive checkout stage in digital commerce. A structural model integrates these at-purchase mechanisms with satisfaction. dissatisfaction. and loyalty. incorporating a dual-phase structure of electronic word-of-mouth (e-WOM): information seeking and sharing & advocacy. Results indicate that both mechanisms enhance satisfaction and reduce dissatisfaction. yet only privacy and security cues elicit advocacy behaviors and strengthen loyalty. Payment convenience stimulates informational engagement but lacks the relational depth required to generate expressive commitment. The study contributes to digital relationship marketing theory by isolating the at-purchase phase of E-CRM. differentiating cognitive (information seeking) from conative (advocacy) e-WOM processes. and modeling satisfaction and dissatisfaction as parallel pathways to loyalty. Managerial implications highlight the necessity of integrating trust-based design and visible security cues to transform operational efficiency into enduring digital relationships.**

Keywords— **At-purchase E-CRM, Payment methods, Privacy and Security, Electronic Word-of-Mouth (e-WOM), Customer Loyalty.**

I. INTRODUCTION

The at-purchase phase often described as the moment of truth in digital commerce constitutes a decisive juncture where design, usability, and trust converge to determine whether a transaction is completed or abandoned. This stage embodies the culmination of the consumer's online journey, translating prior cognitive evaluations into behavioral action. When the purchase interface functions seamlessly through intuitive design, transparent security assurances, and efficient payment processes it reinforces perceptions of value, reliability, and control, thereby fostering satisfaction and repurchase intentions [1], [2]. In contrast, friction, uncertainty, or perceived risk at checkout can abruptly erode consumer confidence, triggering dissatisfaction and abandonment.

Within this context, at-purchase E-CRM mechanisms play a pivotal role. These digital levers encompassing privacy assurances, secure payment systems, and real-time responsiveness serve as operational enablers that transform functional efficiency into emotional reassurance. By shaping the consumer's sense of trust and control, they enhance satisfaction and strengthen post-transactional loyalty . Moreover, positive experiences at the purchase stage often stimulate electronic word-of-mouth (e-WOM), as satisfied consumers engage in evaluative sharing that reinforces their own loyalty while influencing that of others

Nevertheless, the precise effect of purchase-phase E-CRM features on e-WOM and the mediating role of e-WOM in linking E-CRM at purchase, satisfaction, and loyalty remains largely unexplored. To address this conceptual gap, the present study draws on several theoretical frameworks that together clarify the underlying mechanisms connecting these constructs.

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Building first on the Stimulus–Organism–Response (S–O–R) paradigm [6], at-purchase E-CRM features such as payment methods and privacy/security assurances are conceptualized as stimuli that elicit internal cognitive and affective reactions namely satisfaction, dissatisfaction, and engagement in e-WOM which ultimately lead to behavioral responses such as loyalty. This mechanism aligns with [7] Expectancy–Disconfirmation Theory, which explains how consumers derive satisfaction or dissatisfaction by comparing perceived transactional performance with prior expectations; positive disconfirmation enhances satisfaction and advocacy, while negative disconfirmation generates dissatisfaction and avoidance.

In addition, Social Exchange Theory [8] provides a relational rationale for the mediating role of e-WOM. From this perspective, satisfaction and e-WOM are connected through processes of reciprocity and perceived fairness: consumers who experience trust and benefit within a secure digital environment feel compelled to reciprocate by recommending the seller or maintaining future interactions. Finally, this causal logic is consistent with the Cognitive–Affective–Conative (C–A–C) model [9], which posits that consumer responses evolve hierarchically from cognitive evaluation (perceived E-CRM quality) to affective appraisal (satisfaction) and, ultimately, to conative behavior (e-WOM, loyalty).

Together, these frameworks provide a robust theoretical foundation for examining the extent to which at-purchase E-CRM mechanisms translate operational trust into relational outcomes. This study therefore seeks to empirically test the impact of key at-purchase E-CRM levers specifically payment methods and privacy/security on satisfaction and loyalty, modeling e-WOM as a mediating variable that transforms transactional performance into sustained digital loyalty.

II. Literature Review

A. Electronic Customer Relationship Management

The integration of digital technologies into customer relationship management has generated a new paradigm known as electronic customer relationship management (E-CRM). E-CRM is broadly defined as the use of digital technologies to manage, automate, and enhance interactions between firms and consumers throughout the online customer journey [10], [11]. It extends the traditional customer relationship management model by integrating technological infrastructures that support communication, personalization, and transaction management in digital settings. However, the conceptualization of E-CRM varies across scholarly traditions. Two main schools of thought dominate this literature: the relational approach conceptualizes E-CRM as a long-term mechanism for nurturing commitment, personalization, and trust, emphasizing post-purchase and retention strategies [5], [12]. Conversely, the transactional approach interprets E-CRM as a configuration of digital processes that ensure efficiency and trust during the exchange itself [11], [13]. Our study aligns with this latter school, focusing on the at-purchase stage of the transactional life cycle, where system quality, usability, and assurance mechanisms directly determine customer satisfaction, dissatisfaction, and loyalty.

From this standpoint, E-CRM is treated as a construct encompassing the digital mechanisms that facilitate and secure the transaction. These mechanisms act as functional and psychological enablers that influence consumer evaluation at the point of payment . The construct is operationalized through two measurable dimensions, payment methods and privacy/security, that define the consumer's perception of control, trust, and convenience at checkout [13].

The payment methods capture the perceived convenience, variety, and reliability of online payment options. It reflects the extent to which technological systems reduce friction, support user autonomy, and signal transactional efficiency [16]. Meanwhile, the privacy and security dimension concerns consumers' confidence that their personal and financial data are protected against misuse or fraud. This assurance functions as a trust signal, mitigating perceived risk and uncertainty . Together, these dimensions shape affective and behavioral responses by transforming operational reliability into psychological reassurance and loyalty intentions.

H1: At-purchase e-CRM dimensions influence e-WOM dimensions.
- *H1.1: Payment Methods influence Information Seeking.*
- *H1.2: Payment Methods influence Sharing & Advocacy.*
- *H1.3: Privacy & Security influence Information Seeking.*
- *H1.4: Privacy & Security influence Sharing & Advocacy.*

H2: At-purchase e-CRM dimensions influence Satisfaction dimensions.

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- *H2.1: Payment Methods influence Satisfaction.*
- *H2.2: Payment Methods influence Dissatisfaction.*
- *H2.3: Privacy & Security influence Satisfaction.*
- *H2.4: Privacy & Security influence Dissatisfaction.*

H3: At-purchase e-CRM dimensions influence Loyalty.
H3.1: Payment Methods influence Loyalty.
H3.2: Privacy & Security influence Loyalty.

B. Electronic Word-Of-Mouth

Electronic word-of-mouth (e-WOM) extends the foundational concept of traditional word-of-mouth communication defined as the interpersonal exchange of product or service information among consumers [17] into the digital environment. Rooted in social exchange theory [8], e-WOM is conceptualized as both a cognitive and relational process in which consumers seek, interpret, and share evaluative content through online platforms [18]. Scholars have approached e-WOM from two principal perspectives. The behavioral school views it as a form of post-consumption expression shaped by satisfaction and loyalty , while the cognitive-interactive school interprets it as an ongoing information mechanism that precedes and follows purchase decisions, shaping consumer learning and confidence . The latter perspective aligns with the present study's transactional approach, emphasizing e-WOM as an integral component of the purchase experience rather than a post-hoc reaction.

Accordingly, the model proposes that both payment methods and privacy/security first influence information seeking and sharing & advocacy (H1). These two components correspond to the sequential phases of e-WOM identified by [3]: information seeking before or during the purchase, and sharing & advocacy after the purchase. When checkout operations are perceived as simple and secure, consumers are more inclined to search for complementary information and interact with peer evaluations. The extended hypotheses (H1.2–H1.4) assume that these effects can also occur indirectly through satisfaction, emphasizing the mediating role of cognitive and affective evaluations in stimulating engagement and advocacy .

H4: The e-WOM dimension (Information Seeking) influences Satisfaction dimensions.
- *H4.1: Information Seeking influences Satisfaction.*
- *H4.2: Information Seeking influences Dissatisfaction.*

C. Satisfaction And Loyalty

Customer satisfaction has been widely recognized as a central determinant of post-purchase behavior and long-term relationship building in both traditional and electronic commerce. It refers to a consumer's psychological evaluation of the congruence between expectations and actual performance [7]. Across the literature, two primary schools of thought have emerged. The transaction-specific approach conceptualizes satisfaction as a short-term affective response to a single consumption experience, while the cumulative approach defines it as an overall evaluation of multiple experiences over time [23]. Recent developments also emphasize cognitive–affective integration, where satisfaction encompasses both rational assessment and emotional appraisal [24]. Consistent with these perspectives, the present study aligns with attitudinal satisfaction as defined by [7], which views satisfaction as a positive evaluative state influencing future behavioral intentions. This conceptualization is theoretically anchored in the Expectation–Confirmation Theory (ECT), which posits that satisfaction results from the confirmation or disconfirmation of pre-purchase expectations [7].

H5: Satisfaction influences the e-WOM dimension (Sharing & Advocacy).
H6: Satisfaction dimensions influence Loyalty.
- *H6.1: Satisfaction influences Loyalty.*
- *H6.2: Dissatisfaction influences Loyalty.*

Loyalty, by contrast, represents the enduring consequence of sustained satisfaction and trust. It has been defined as a deeply held commitment to repurchase or recommend a product or service despite situational or competitive influences [19], [25]. Two principal perspectives dominate this construct: behavioral loyalty, referring to repeated purchasing actions, and attitudinal loyalty, reflecting psychological attachment and

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commitment [26]. The current study adopts the attitudinal view advanced by [19], emphasizing loyalty as a relational outcome rooted in perceived quality, satisfaction, and trust. This orientation aligns with Social Exchange Theory [8], which frames loyalty as a reciprocal response to perceived value and fairness in the exchange relationship, and with the Cognitive–Affective–Conative model, which positions loyalty as the conative expression of prior cognitive and affective evaluations.

The second theoretical sequence (H2) links at-purchase mechanisms to satisfaction and dissatisfaction, drawing on expectancy–disconfirmation theory [7]. Consumers compare perceived performance with expectations formed during their online journey. Smooth, reliable payment systems and strong data protection enhance satisfaction, whereas technical errors or privacy concerns generate dissatisfaction [2], [13], [14], [15]. These effects may act directly or indirectly through information seeking (H2.1–H2.4), illustrating how cognitive search behaviors mediate emotional responses to transaction outcomes. The dual evaluations positive and negative are complementary rather than symmetrical, each explaining a distinct facet of post-purchase stance [7], [19].

Extending this logic, H3 conceptualizes loyalty as the behavioral consequence of these sequential mechanisms. Payment methods and privacy/security influence loyalty both directly and indirectly through chains incorporating information seeking, satisfaction, dissatisfaction, and advocacy (H3.2–H3.4). This structure captures the transformation of transactional experience into a relational outcome where loyalty arises from cognitive and affective evaluations rather than technical features alone [11], [13].

Information seeking (H4–H5) plays a central theoretical role as a cognitive bridge between transactional features and post-purchase outcomes. Active consultation of external information refines interpretation of the purchase experience, increasing satisfaction or mitigating dissatisfaction (H4). Information seeking also influences loyalty directly and indirectly via satisfaction and dissatisfaction (H5.1–H5.3) [3], [18], [27]. This sequence reflects a cognitive-learning perspective, where evaluative search consolidates confidence and supports repeat intention.

Finally, H6–H8 address the sharing and advocacy phase of e-WOM. Satisfaction encourages public articulation of experiences (H8), and advocacy behaviors reinforce loyalty (H6). Moreover, information seeking indirectly promotes advocacy through satisfaction (H7), confirming the recursive nature of e-WOM, in which pre-purchase information feeds post-purchase sharing [20], [21], [28].

The last sequence (H9) distinguishes the asymmetric effects of affective appraisals on loyalty. Consistent with Oliver's dual-appraisal framework, dissatisfaction diminishes loyalty, while satisfaction strengthens it both directly and indirectly via advocacy (H9.1–H9.3) [7], [19], [29].

Overall, the model conceptualizes at-purchase E-CRM as a behavioral system linking operational efficiency to psychological and communicative responses. Payment methods and privacy/security act as situational stimuli that trigger cognitive exploration (information seeking), generate dual affective outcomes (satisfaction and dissatisfaction), and sustain relational behaviors (sharing and advocacy), ultimately culminating in loyalty. Through this integrative logic, the model captures how the purchasing interface functions not only as a transactional stage but as a catalyst of consumer loyalty in digital commerce [10], [29].

H7: At-purchase e-CRM dimensions influence Satisfaction dimensions through Information Seeking.
- *H7.1: Information Seeking mediates the relationship between Payment Methods and Satisfaction.*
- *H7.2: Information Seeking mediates the relationship between Privacy & Security and Satisfaction.*
- *H7.3: Information Seeking mediates the relationship between Payment Methods and Dissatisfaction.*
- *H7.4: Information Seeking mediates the relationship between Privacy & Security and Dissatisfaction.*

H8: At-purchase e-CRM dimensions influence Sharing & Advocacy through Information Seeking.
- *H8.1: Information Seeking mediates the relationship between Payment Methods and Sharing & Advocacy.*
- *H8.2: Information Seeking mediates the relationship between Privacy & Security and Sharing & Advocacy.*

H9: At-purchase e-CRM dimensions influence Sharing & Advocacy through Satisfaction.
- *H9.1: Satisfaction mediates the relationship between Payment Methods and Sharing & Advocacy.*
- *H9.2: Satisfaction mediates the relationship between Privacy & Security and Sharing & Advocacy.*

H10: At-purchase e-CRM dimensions influence Sharing & Advocacy through Information Seeking and Satisfaction.
- *H10.1: Payment Methods influence Sharing & Advocacy through the mediation of Information Seeking and Satisfaction.*
- *H10.2: Privacy & Security influence Sharing & Advocacy through the mediation of Information Seeking and Satisfaction.*

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H11: Satisfaction mediates the relationship between Information Seeking and Sharing & Advocacy.
H12: Information Seeking influences Loyalty through Satisfaction and Sharing & Advocacy.
H13: Sharing & Advocacy mediates the relationship between Satisfaction and Loyalty.
H14: Information Seeking. Satisfaction. and Sharing & Advocacy mediate the relationship between at-purchase e-CRM dimensions and Loyalty.

- *H14.1: Information Seeking. Satisfaction. and Sharing & Advocacy mediate the relationship between Payment Methods and Loyalty.*
- *H14.2: Information Seeking. Satisfaction. and Sharing & Advocacy mediate the relationship between Privacy & Security and Loyalty.*

III. Methodology

We adopted a quantitative research approach to analyze numerical data and establish generalizable relationships (Hulland et al., 1996). A bilingual structured questionnaire was administered both online and face-to-face, following established guidelines for instrument design, translation, and validation [24] . The questionnaire design followed the back-translation technique [31].

Users' perceptions toward at-purchase E-CRM were measured using a structured multi-construct framework. The privacy and security dimension was assessed through four items adapted from Kim et al. (2008) and Featherman & Pavlou 2003 , while payment methods were captured by three items reflecting convenience, variety, and reliability. Electronic word-of-mouth (e-WOM) was operationalized through two dimensions: information seeking and sharing/advocacy each comprising three items [3]. Satisfaction and dissatisfaction were measured using three items each [7], and customer loyalty was captured through five items reflecting repurchase and retention intentions [19].

All items were rated on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") [32]. Data were collected through convenience sampling [33], resulting in 1,124 valid responses. Prior to full-scale administration, a pilot test involving 35 participants confirmed the clarity, reliability, and cross-linguistic equivalence of the instrument [34]. The final sample consisted predominantly of female respondents (57.1 %), with an average age of 27 years and a majority holding a university degree (55.7 %). Students represented 52.5 % of the sample, while the remainder included participants from managerial, clerical, executive, day-labour, and other occupational categories.

IV. Results

All multi-item scales demonstrate strong internal consistency (Cronbach's $\alpha > 0.70$ for every sub-dimension;[35]. The PLS-SEM measurement model meets the established criteria for convergent validity, composite reliability, and discriminant validity, confirming its robustness. Structural relationships are deemed acceptable at $p < .10$ and strongly supported at $p < .05$ (table2 and 3) [36].

For H1, the E-CRM at-purchase dimension affects the E-WOM dimensions; H2 confirms its relationship with satisfaction dimensions, and H3 with loyalty. Payment Methods increased information-seeking behavior ($\beta = .270$. $p < .001$) and customer satisfaction ($\beta = .171$. $p < .001$). while reducing dissatisfaction ($\beta = -.158$. $p = .002$). However, it did not directly influence sharing & advocacy ($\beta = .031$. $p = .412$) or loyalty ($\beta = .030$. $p = .504$). Security & Privacy likewise stimulated information seeking ($\beta = .246$. $p < .001$) and sharing & advocacy ($\beta = .084$. $p = .028$), increased satisfaction ($\beta = .239$. $p < .001$) and exerted a direct positive effect on loyalty ($\beta = .186$. $p < .001$); its direct path to dissatisfaction was non-significant ($\beta = -.071$. $p = .171$).

For H4, which investigates the relationship between information seeking and satisfaction dimensions. and for H5, which examines the relationship between E-WOM dimensions and loyalty: Information seeking lowered dissatisfaction ($\beta = -.174$. $p < .001$) and bolstered satisfaction ($\beta = .438$. $p < .001$) but did not translate directly into loyalty ($\beta = .052$. $p = .222$). Sharing & advocacy emerged as the strongest direct driver of loyalty ($\beta = .312$. $p < .001$). highlighting its central role in converting satisfaction into behavioral commitment.

Regarding H6, which addresses the link between satisfaction and loyalty, and H7. which assesses the effect of satisfaction on sharing & advocacy: Satisfaction positively influenced both loyalty ($\beta = .274$. $p < .001$) and sharing & advocacy ($\beta = .271$. $p < .001$). Dissatisfaction showed a small but significant positive link to loyalty ($\beta = .060$. $p = .024$).

H8 investigates the mediating role of satisfaction between the E-CRM at-purchase dimensions and sharing & advocacy, while H9 considers satisfaction as a mediator toward loyalty. Satisfaction reliably transmitted the

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effects of both Payment Methods and Security & Privacy to sharing & advocacy (β = .046. p = .002; β = .065. p < .001. respectively) and to loyalty (β = .047. p = .001; β = .066. p < .001). The dissatisfaction-based indirect paths were generally weak, reaching only marginal significance for the Payment Methods → Dissatisfaction → Loyalty chain (β = −.010. p = .093).

Security & Privacy also affected loyalty via sharing & advocacy (H10) (β = .026. p = .041), whereas comparable pathways for Payment Methods were inconclusive. Finally, information seeking influenced advocacy through satisfaction (H11 and H12) (β = .119. p < .001) and, in turn. influenced loyalty through the dual sequence Information Seeking → Satisfaction → Loyalty (H13) (β = .120. p < .001); its alternative pathway through dissatisfaction remained marginal (β = −.011. p = .053). H14 explores the relationship between E-CRM dimensions and loyalty through information seeking.

Among the structural relationships, the most influential effects emerged for Information Seeking → Satisfaction (β = .438. p < .001) and Sharing & Advocacy → Loyalty (β = .312. p < .001). underscoring the mediating strength of e-WOM dimensions in transforming transactional experience into enduring commitment.

TABLE I
HYPOTHESIS TEST RESULTS

Hypotheses		Path	β	P values
H1	H1.1	Payment Methods -> Information Seeking	0.270	0.000
	H1.2	Payment Methods -> Sharing & Advocacy	0.031	0.412
	H1.3	Security & Privacy -> Information Seeking	0.246	0.000
	H1.4	Security & Privacy -> Sharing & Advocacy	0.084	0.028
H2	H2.1	Payment Methods -> Satisfaction	0.171	0.000
	H2.2	Payment Methods -> Dissatisfaction	-0.158	0.002
	H2.3	Security & Privacy -> Satisfaction	0.239	0.000
	H2.4	Security & Privacy -> Dissatisfaction	-0.071	0.171
H3	H3.1	Payment Methods -> Loyalty	0.030	0.504
	H3.2	Security & Privacy -> Loyalty	0.186	0.000
H4	H4.1	Information Seeking -> Satisfaction	0.438	0.000
	H4.2	Information Seeking -> Dissatisfaction	-0.174	0.000
H5		Satisfaction -> Sharing & Advocacy	0.271	0.000
H6	H6.1	Satisfaction -> Loyalty	0.274	0.000
	H6.2	Dissatisfaction -> Loyalty	0.060	0.024
H7	H7.1	Payment Methods -> Information Seeking -> Satisfaction	0.118	0.000
	H7.2	Security & Privacy -> Information Seeking -> Satisfaction	0.107	0.000
	H7.3	Payment Methods -> Information Seeking -> Dissatisfaction	-0.047	0.000
	H7.4	Security & Privacy -> Information Seeking -> Dissatisfaction	-0.043	0.000
H8	H8.1	Payment Methods -> Information Seeking -> Sharing & Advocacy	0.143	0.000
	H8.2	Security & Privacy -> Information Seeking -> Sharing & Advocacy	0.130	0.000
H9	H9.1	Payment Methods -> Satisfaction -> Sharing & Advocacy	0.046	0.002
	H9.2	Security & Privacy -> Satisfaction -> Sharing & Advocacy	0.065	0.000
H10	H10.1	Payment Methods -> Information Seeking -> Satisfaction -> Sharing & Advocacy	0.032	0.000
	H10.1	Security & Privacy -> Information Seeking -> Satisfaction -> Sharing & Advocacy	0.029	0.000
H11		Information Seeking -> Satisfaction -> Sharing & Advocacy	0.119	0.000
H12		Information Seeking -> Satisfaction -> Sharing & Advocacy -> Loyalty	0.037	0.000
H13		Satisfaction -> Sharing & Advocacy -> Loyalty	0.085	0.000
H14	H14.1	Payment Methods -> Information Seeking -> Satisfaction -> Sharing & Advocacy -> Loyalty	0.010	0.000
	H14.2	Security & Privacy -> Information Seeking -> Satisfaction -> Sharing & Advocacy -> Loyalty	0.009	0.000

V. DISCUSSION

The findings of this study elucidate the differentiated roles of two key at-purchase E-CRM levers payment convenience and security/privacy assurances in shaping consumer responses at the decisive checkout stage. While both mechanisms enhance satisfaction and mitigate dissatisfaction, they activate distinct psychological processes, reflecting the dual cognitive and relational pathways that underpin digital consumer behavior [15], [37].

From a cognitive perspective, payment convenience functions primarily as a risk-reduction mechanism, minimizing transactional friction and uncertainty. This aligns with the Stimulus–Organism–Response (S–O–R) framework (Mehrabian & Russell, 1974) and Expectancy–Disconfirmation Theory (Oliver, 1980, 1997),

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which together explain how streamlined payment systems act as stimuli that fulfill expectations, reduce cognitive load, and elicit positive emotional responses. This mechanism also resonates with the Theory of Reasoned Action [38], as consumer intention to complete a transaction reflects both attitude toward the purchasing process and perceived social norms of efficiency and reliability. When consumers experience seamless and efficient transactions, they interpret this as confirmation of competence and reliability, thereby enhancing satisfaction. However, this type of satisfaction remains largely utilitarian: it fulfills immediate performance expectations but does not necessarily deepen emotional bonds or stimulate public advocacy behaviors such as sharing experiences or recommending the brand.

In contrast, security and privacy assurances exert a broader and more enduring influence. Beyond mitigating risk perception, they convey integrity and benevolence two core dimensions of trust-transfer theory [8], [37]. Through visible security cues, transparent policies, and protective measures, consumers transfer trust from the technological environment to the brand itself. Within the Cognitive–Affective–Conative (C–A–C) framework (Lavidge & Steiner, 1961), this dynamic unfolds as a structured progression: Security & Privacy act as cognitive stimuli that trigger information seeking, representing the evaluative stage of understanding the brand's reliability. This cognitive engagement then nurtures satisfaction, reflecting the affective response of reassurance and confidence, which in turn drives advocacy and loyalty as conative, action-oriented expressions of commitment. Within this logic, the Service-Dominant Logic [39] offers a complementary lens, framing the purchase experience as a co-created value exchange where trust and transparency transform operational processes into relational assets. Hence, privacy assurances at the purchase stage not only reduce perceived risk but also sustain the full cognitive–affective–conative progression, converting transactional trust into relational loyalty.

This relational mechanism is further illuminated by Social Exchange Theory [8] and reciprocity frameworks [17], [40], as well as by Relationship Marketing Theory [41], which highlights commitment and trust as key mediators of long-term relationship quality. When customers perceive fairness and benevolence, they reciprocate with loyalty-based behaviors, reinforcing the mutual exchange that underpins sustainable digital relationships. Moreover, Customer Engagement Theory [42] deepens this interpretation by explaining how satisfaction and trust evolve into active participation manifested through advocacy, feedback, and emotional attachment rather than remaining passive evaluations. In this sense, engagement acts as the behavioral extension of satisfaction, amplifying loyalty through voluntary and affective involvement.

The findings also align with Customer Journey Mapping [43], which conceptualizes the purchase stage as a decisive moment within a continuous relational journey. At this point, consumers reassess their perceptions of value, trust, and emotional security; thus, effective E-CRM design ensures that both transactional and relational needs are met simultaneously. When privacy cues and convenience mechanisms are cohesively integrated, the purchase phase becomes not merely an endpoint but a critical bridge toward post-purchase advocacy and long-term commitment.

A particularly noteworthy insight from the results concerns the positive role of temporary dissatisfaction in fostering loyalty. This finding resonates with the service-recovery paradox [44], suggesting that when minor issues arise during checkout but are addressed swiftly and transparently, they can paradoxically strengthen customer trust and appreciation. Such experiences demonstrate responsiveness and competence, converting momentary friction into relational reinforcement. Therefore, well-designed support mechanisms, instant communication channels, real-time issue resolution, and transparent confirmation systems are integral to transforming operational challenges into opportunities for deepening customer attachment.

Taken together, these findings extend the theoretical understanding of how at-purchase E-CRM mechanisms translate operational efficiency into relational outcomes. They reinforce that information seeking and advocacy represent distinct but sequential phases of e-WOM, where cognitive engagement precedes affective expression and behavioral commitment. Moreover, they confirm that satisfaction serves as a pivotal mediator between functional perceptions and relational loyalty, while relational trust amplifies this process through reciprocal and advocacy-driven behaviors.

From a managerial perspective, these insights emphasize the importance of designing purchase environments that balance transactional convenience with relational reassurance. Firms should not merely streamline payment flows but also embed trust cues such as privacy assurances, visible security indicators, and clear data policies directly into the checkout experience. While payment convenience is essential to prevent friction and abandonment, it is the perception of protection and fairness that transforms satisfied

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buyers into loyal advocates. Additionally, investment in responsive service recovery tools ensures that even brief disruptions can become catalysts for strengthening relational bonds.

Ultimately, this study underscores that at-purchase E-CRM levers operate on two intertwined planes: cognitive facilitation and relational assurance. Their combined effect transforms isolated transactions into sustained digital relationships, advancing both theoretical and practical understanding of how operational trust evolves into social commitment and long-term loyalty.

VI. Conclusion

This study illuminates how payment convenience and security/privacy assurances, deployed at the checkout stage, differentially shape the consumer's at-purchase journey from satisfaction to loyalty. While both mechanisms reduce transactional friction and enhance immediate satisfaction, only security and privacy cues extend their influence to public advocacy and enduring loyalty, highlighting the critical role of trust-transfer and risk-reduction mechanisms in digital commerce. Payment convenience primarily addresses cognitive efficiency and encourages information-seeking, yet it does not inherently foster relational commitment or drive consumers to share their experiences publicly.

By disentangling information-seeking from sharing and advocacy within e-WOM, the findings demonstrate that advocacy acts as the key conduit through which transactional satisfaction translates into lasting loyalty, reinforcing principles from social exchange and reciprocity theories. Embedding recommendation behaviors within the loyalty construct reflects the contemporary, engagement-driven understanding of digital loyalty as a public declaration of brand attachment, though future research should further separate attitudinal loyalty from behavioral advocacy to refine measurement.

Managerially, the evidence underscores that operational efficiency alone is insufficient. Firms must integrate visible trust signals, such as security badges, clear privacy statements, and multi-factor authentication, while enabling peer visibility and responsive support mechanisms to leverage the service-recovery paradox. Such a dual approach converts one-off transactions into sustained, relationally anchored customer relationships, ensuring that satisfaction evolves into observable advocacy and long-term loyalty.

Finally, while the study provides actionable insights, it is constrained by its cross-sectional design and reliance on a digitally adept, predominantly young sample. Future research should adopt longitudinal and experimental approaches, explore diverse demographic segments, and investigate the efficacy of emerging trust signals, including biometric authentication or real-time privacy dashboards, to validate causal mechanisms and enhance generalizability.

VII. Appendices

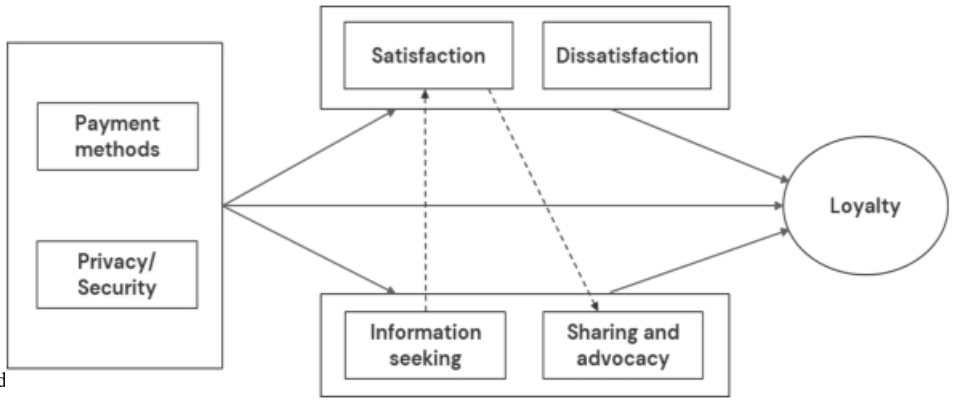

Fig. 1 Research Mod

Table II
Structural model quality criteria

		Convergent validity		Internal consistency reliability		
Construct	**Manifest variable**	**Loadings**	**AVE**	**rho C**	**rho a**	**Cronbach's alpha**
		>0.70	>0.50	0.70-0.95	>0.70	>0.70

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Security & privacy	AtSec01 AtSec02 AtSec03 AtSec04	0.857 0.896 0.837 0.831	0.732	0.916	0.879	0.732
Payments Method	AtPayM01 AtPayM02 AtPayM03	0.878 0.887 0.878	0.776	0.912	0.857	0.856
Information Seeking	IS01 IS02 IS03	0.869 0.895 0.900	0.783	0.916	0.862	0.862
Sharing and Advocacy	SA01 SA01 SA01	0.878 0.832 0.894	0.761	0.927	0.883	0.809
Satisfaction	SAT01 SAT03 SAT05	0.883 0.896 0.792	0.736	0.893	0.833	0.736
Dissatisfaction	SAT02 SAT04 SAT06	0.883 0.864 0.839	0.743	0.897	0.898	0.835
Loyalty	LOYL01 LOYL02 LOYL03 LOYL04 LOYL05	0.874 0.881 0.893 0.836 0.811	0.738	0.934	0.915	0.911

TABLE III
DISCRIMINANT VALIDITY OF MODEL

	1	Information Seeking	Loyalty	Payment Methods	Satisfaction	Security & Privacy	Sharing & Advocacy
Dissatisfaction	**0.862**						
Information Seeking	-0.277	**0.885**					
Loyalty	-0.210	0.535	**0.859**				
Payment Methods	-0.289	0.450	0.470	**0.881**			
Satisfaction	-0.375	0.620	0.611	0.542	**0.858**		
Security & Privacy	-0.265	0.443	0.521	0.731	0.558	**0.855**	
Sharing & Advocacy	-0.306	0.749	0.621	0.478	0.663	0.493	**0.900**

REFERENCES

[1] C. J. Madueke and S. Eyupoglu, "Sustaining Economic Growth: E-Service Quality's Role in Fostering Customer Loyalty in Nigeria SMEs," *Sustainability (Switzerland)*, vol. 16, no. 21. Multidisciplinary Digital Publishing Institute (MDPI), 2024. doi: 10.3390/su16219175.

[2] F. Hipólito, Á. Dias, and L. Pereira, "Influence of Consumer Trust, Return Policy, and Risk Perception on Satisfaction with the Online Shopping Experience," *Systems*, vol. 13, no. 3, Art. no. 3, Feb. 2025, doi: 10.3390/systems13030158.

[3] A. Gam, A. Bellil, J. Habouria, and M. Oueslati, "The Dual Role of e-WOM: Information Seeking as a Driver of Satisfaction, and Advocacy as a Pathway to Loyalty," 2025.

[4] H.-C. Kuo and C. Nakhata, "The Impact of Electronic Word-of-Mouth on Customer Satisfaction," *Journal of Marketing Theory and Practice*, vol. 27, no. 3, pp. 331–348, July 2019, doi: 10.1080/10696679.2019.1615840.

[5] H. Hasan, H. Dmour, and R. Aldmour, "The Effect of eWOM on E-Loyalty: The Mediating Role of E-Satisfaction," *International Journal of Customer Relationship Marketing and Management*, vol. 11, pp. 82–100, July 2020, doi: 10.4018/IJCRMM.2020070105.

[6] A. Mehrabian and J. A. Russell, *An approach to environmental psychology*. in An approach to environmental psychology. Cambridge, MA, US: The MIT Press, 1974, pp. xii, 266.

[7] R. L. Oliver, "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions," *Journal of Marketing Research*, vol. 17, no. 4, pp. 460–469, Nov. 1980, doi: 10.1177/002224378001700405.

[8] P. M. Blau, "Justice in Social Exchange," *Sociological Inquiry*, vol. 34, no. 2, pp. 193–206, 1964, doi: 10.1111/j.1475-682X.1964.tb00583.x.

ISSN: 2961-662X

[9] R. J. Lavidge and G. A. Steiner, "A Model for Predictive Measurements of Advertising Effectiveness," *Journal of Marketing*, vol. 25, no. 6, pp. 59–62, Oct. 1961, doi: 10.1177/002224296102500611.

[10] P. Harrigan, E. Ramsey, and P. Ibbotson, "e-CRM in SMEs: an exploratory study in Northern Ireland," *Marketing Intelligence & Planning*, vol. 26, no. 4, pp. 385–404, June 2008, doi: 10.1108/02634500810879296.

[11] M. Khalifa and K. N. Shen, "Modelling electronic customer relationship management success: Functional and temporal considerations," *Behaviour and Information Technology*, vol. 28, no. 4. pp. 373–387, 2009. doi: 10.1080/01449290802030373.

[12] R. M. Morgan and S. D. Hunt, "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, vol. 58, no. 3, pp. 20–38, July 1994, doi: 10.1177/002224299405800302.

[13] A. Gam, A. Bellil, M. Oueslati, and J. Habouria, "The Impact of E-CRM At Purchase Features on Trust, Satisfaction, and Loyalty in E-Commerce: The Mediating Roles of Trust and Satisfaction," presented at the 22ème Colloque International de l'Association Tunisienne de Marketing, Sousse, Tunisia: ATM, May 2025.

[14] D. J. Kim, "Self-Perception-Based Versus Transference-Based Trust Determinants in Computer-Mediated Transactions: A Cross-Cultural Comparison Study," *Journal of Management Information Systems*, vol. 24, no. 4, pp. 13–45, Apr. 2008, doi: 10.2753/MIS0742-1222240401.

[15] M. S. Featherman and P. A. Pavlou, "Predicting e-services adoption: a perceived risk facets perspective," *International Journal of Human-Computer Studies*, vol. 59, no. 4, pp. 451–474, Oct. 2003, doi: 10.1016/S1071-5819(03)00111-3.

[16] J. (David) Xu, R. T. Cenfetelli, and K. Aquino, "Do different kinds of trust matter? An examination of the three trusting beliefs on satisfaction and purchase behavior in the buyer–seller context," *The Journal of Strategic Information Systems*, vol. 25, no. 1, pp. 15–31, Mar. 2016, doi: 10.1016/j.jsis.2015.10.004.

[17] T. Hennig-Thurau, K. P. Gwinner, G. Walsh, and D. D. Gremler, "Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet?," *Journal of Interactive Marketing*, vol. 18, no. 1, pp. 38–52, Feb. 2004, doi: 10.1002/dir.10073.

[18] C. M. K. Cheung and D. R. Thadani, "The impact of electronic word-of-mouth communication: A literature analysis and integrative model," *Decision Support Systems*, vol. 54, no. 1, pp. 461–470, Dec. 2012, doi: 10.1016/j.dss.2012.06.008.

[19] V. A. Zeithaml, L. L. Berry, and A. Parasuraman, "The Behavioral Consequences of Service Quality," *Journal of Marketing*, vol. 60, no. 2, pp. 31–46, Apr. 1996, doi: 10.1177/002224299606000203.

[20] A. Babić Rosario, K. De Valck, and F. Sotgiu, "Conceptualizing the electronic word-of-mouth process: What we know and need to know about eWOM creation, exposure, and evaluation," *J. of the Acad. Mark. Sci.*, vol. 48, no. 3, pp. 422–448, May 2020, doi: 10.1007/s11747-019-00706-1.

[21] F. E. Amenuvor and 이형탁, "The Effect of Pre-purchase WOM Seeking Behavior on the WOM Intention", Accessed: Mar. 04, 2025. [Online]. Available: https://www.earticle.net/Article/A377630

[22] Y. Kartika and M. S. Shihab, "MEMBANGUN POSITIVE E-WOM MELALUI E-SERVICE QUALITY, KEPERCAYAAN DAN KEPUASAN," *jemi*, vol. 2, no. 4, pp. 195–204, Dec. 2019, doi: 10.36782/jemi.v2i4.1942.

[23] D. M. Szymanski and R. T. Hise, "E-satisfaction: an initial examination," *Journal of Retailing*, vol. 76, no. 3, pp. 309–322, July 2000, doi: 10.1016/S0022-4359(00)00035-X.

[24] D. Jani and H. Han, "Personality, satisfaction, image, ambience, and loyalty: Testing their relationships in the hotel industry," *International Journal of Hospitality Management*, vol. 37, pp. 11–20, Feb. 2014, doi: 10.1016/j.ijhm.2013.10.007.

[25] R. L. Oliver, "Whence Consumer Loyalty?," *Journal of Marketing*, vol. 63, no. 4_suppl1, pp. 33–44, Oct. 1999, doi: 10.1177/00222429990634s105.

[26] A. S. Dick and K. Basu, "Customer loyalty: Toward an integrated conceptual framework," *Journal of the Academy of Marketing Science*, vol. 22, no. 2, Art. no. 2, Mar. 1994, doi: 10.1177/0092070394222001.

[27] D. B. Luong, K.-W. Wu, and T. H. G. Vo, "Difficulty is a possibility: turning service recovery into e-WOM," Feb. 2021, doi: 10.1108/JSM-12-2019-0487.

[28] E. Lazzaro and D. Noonan, "The Contribution of Crowdfunding Regulation to Cultural Entrepreneurship in a Supportive Ecosystem," *Contributions to Management Science*. Springer Science and Business Media Deutschland GmbH, pp. 401–424, 2021. doi: 10.1007/978-3-030-65687-4_18.

[29] A. Ilmudeen, Y. Bao, and I. M. Alharbi, "How does business-IT strategic alignment dimension impact on organizational performance measures: Conjecture and empirical analysis," May 2019, doi: 10.1108/JEIM-09-2018-0197.

[30] J. Hulland, Y. H. Chow, and S. Lam, "Use of causal models in marketing research: A review," *International Journal of Research in Marketing*, vol. 13, no. 2, pp. 181–197, Apr. 1996, doi: 10.1016/0167-8116(96)00002-X.

[31] J.-C. Usunier, "Language as a resource to assess cross-cultural equivalence in quantitative management research," *Journal of World Business*, vol. 46, no. 3, pp. 314–319, July 2011, doi: 10.1016/j.jwb.2010.07.002.

[32] R. Likert, "A technique for the measurement of attitudes," *Archives of Psychology*, vol. 22 140, pp. 55–55, 1932.

ISSN: 2961-662X

[33] L. Ritchie, "Empowerment and Australian Community Health Nurses' Work with Aboriginal Clients: The Sociopolitical Context," *Qual Health Res*, vol. 11, no. 2, pp. 190–205, Mar. 2001, doi: 10.1177/104973201129119046.
[34] N. Reynolds, A. Diamantopoulos, and B. Schlegelmilch, "Pre-Testing in Questionnaire Design: A Review of the Literature and Suggestions for Further Research," *Market Research Society. Journal.*, vol. 35, no. 2, pp. 1–11, Mar. 1993, doi: 10.1177/147078539303500202.
[35] W. D. Perreault and L. E. Leigh, "Reliability of Nominal Data Based on Qualitative Judgments," *Journal of Marketing Research*, vol. 26, no. 2, pp. 135–148, May 1989, doi: 10.1177/002224378902600201.
[36] L. A. Goodman and W. H. Kruskal, "Measures of Association for Cross Classifications III: Approximate Sampling Theory," *Journal of the American Statistical Association*, vol. 58, no. 302, pp. 310–364, June 1963, doi: 10.1080/01621459.1963.10500850.
[37] K. J. Stewart, "Trust Transfer on the World Wide Web," *Organization Science*, vol. 14, no. 1, pp. 5–17, Feb. 2003, doi: 10.1287/orsc.14.1.5.12810.
[38] M. Fishbein and I. Ajzen, "Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research," *Philosophy and Rhetoric*, vol. 10, no. 2, pp. 130–132, 1977.
[39] S. L. Vargo, "Évolution vers une nouvelle logique dominante pour le marketing," in *La logique marketing axée sur le service*, 2004.
[40] K. G. Jöreskog, "Statistical analysis of sets of congeneric tests," *Psychometrika*, vol. 36, no. 2, pp. 109–133, 1971.
[41] R. M. Morgan and S. D. Hunt, "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, vol. 58, no. 3, pp. 20–38, July 1994, doi: 10.1177/002224299405800302.
[42] R. J. Brodie, L. D. Hollebeek, B. Jurić, and A. Ilić, "Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research," *Journal of Service Research*, vol. 14, no. 3, pp. 252–271, Aug. 2011, doi: 10.1177/1094670511411703.
[43] K. N. Lemon and P. C. Verhoef, "Understanding Customer Experience Throughout the Customer Journey," *Journal of Marketing*, vol. 80, no. 6, pp. 69–96, Nov. 2016, doi: 10.1509/jm.15.0420.
[44] C. Fornell and D. F. Larcker, "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, vol. 18, no. 1, pp. 39–50, Feb. 1981, doi: 10.1177/002224378101800104.

ISSN: 2961-662X