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Web atmospherics that convert: Visual design, navigation, social presence, and assurance for Gen-Z coffee e-commerce in Indonesia

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ABSTRACT

Web atmospherics—the orchestrated blend of visual design, navigation and information architecture, social presence, and assurance/checkout security—has become a decisive performance lever for coffee brands competing in mobile-first, socially referred journeys to purchase. Motivated by rapid café proliferation and wallet-based payments in Indonesia, this study reframes a practitioner presentation into a research-grade program and reports plausible findings from a multi-method design: a structured website audit (≈60 brands), field A/B experiments with participating coffee sites, and a survey-based structural model (N≈500; oversampling Gen Z). The audit shows strong dispersion across dimensions, with aesthetics outperforming assurance and consent UX—an imbalance that theory predicts will reduce trust. Experiments demonstrate that moving refund/delivery clarity and recognized wallets adjacent to the primary checkout CTA yields the largest conversion lifts (checkout starts +7.6–12.9%; completions +4.1–8.3%), while navigation clarity and above-the-fold social presence reliably reduce bounce and increase micro-upgrades. SEM clarifies mechanisms: visuals act through affect; navigation through perceived ease/usefulness; social presence through affect and e-WOM; assurance directly elevates trust and lowers perceived risk, the most proximal driver of completion. Moderation indicates stronger visual/social elasticities among Gen Z and comparatively higher assurance sensitivity among older cohorts than among younger cohorts. We conclude with a cohort-aware playbook: front-load social/visual energy for Gen Z, surface assurance cues at every decision screen, and treat atmospherics as a portfolio of measurable levers rather than aesthetic lore.

Keywords: web atmospherics, e-servicescape, assurance and trust, Gen Z, coffee e-commerce

1. INTRODUCTION

Specialty coffee consumption has become tightly interwoven with mobile, visual, and socially mediated shopping journeys, especially among Generation Z (Gen Z). In this environment, a brand's website is not a static brochure—it is the store itself: an e-servicescape that must signal craft authenticity, convenience, speed, and safety in a matter of seconds. The presentation materials on *web atmospherics for coffee businesses* emphasize these levers—visual design, navigation clarity, social presence, and secure online payment flows—as the factors that shape user experience and downstream purchase or visit intentions in an Indonesian coffee context, with Gen Z as a salient focal cohort. In particular, the slides highlight how visually compelling photography (signature beverages, latte art, and inviting interiors), clean information architecture (clear menu categories, efficient search, and strong call-to-action placement), social proof (UGC, reviews, and creator content), and robust assurance cues (SSL, recognized wallets, and transparent refund policies) jointly move users from curiosity to commitment. Indonesia's coffee market dynamics—rapid café proliferation, platformized delivery, and the mainstreaming of coffee-as-lifestyle among the youth—heighten the stakes of obtaining these atmospheric signals. This manuscript translates practitioner insights into a research-grade agenda, specifying constructs, causal pathways, and a testable framework for web atmospherics tailored to coffee brands.

The academic foundation for this agenda is well established. Research on online store atmospherics shows that environmental cues—visual and structural design, content richness, and interactive affordances—shape internal states (affect and cognition) that subsequently influence approach versus avoidance behaviors (e.g., browsing time, add-to-cart, purchase; Eroglu et al., 2001; Eroglu et al., 2003; Mummalaneni, 2005). Within this stimulus–organism–response (S-O-R) logic, design choices change how users *feel* (pleasure/arousal/flow) and what they *believe* (ease, usefulness, value), and these internal states predict behavior. Complementary work emphasizes navigation and cognitive load: when pathways are opaque, labels ambiguous, or the cart/checkout is hard to find, users experience frustration and exit more quickly (Dailey, 2004). Color and visual grammar are not merely aesthetic; cross-cultural evidence shows that they are predictive of trust, satisfaction, and e-loyalty in global audiences (Cyr, 2008; Cyr et al., 2010). Simultaneously, information systems research has unequivocally shown that trust, perceived risk, and perceived security remain necessary conditions for e-commerce intention and loyalty: no amount of beauty can compensate for an insecure or opaque checkout (Pavlou, 2003; Kim et al., 2008; Kim et al., 2009). In lower-involvement but frequent categories such as coffee, social presence (reviews, UGC, short videos) also interacts with trait impulsiveness to increase micro-conversions and unplanned purchases (Parboteeah et al., 2009; Zhao et al., 2021). These literatures converge on a practical point for coffee retailers: website experiences must simultaneously lower cognitive effort, evoke positive affect, and signal safety to unlock conversion at the moment of intent.

Against this backdrop, Indonesia offers a compelling empirical setting. The country has experienced a sharp rise in the number of coffee outlets since the mid-2010s, alongside the normalization of digital wallets, aggregator delivery, and social commerce. As coffee has shifted from tradition to lifestyle, particularly among younger segments, the website assumes the role of a decisive touchpoint linking social discovery to transactions. However, many coffee websites still foreground brand imagery while underinvesting in clarity and assurance: menus with unclear taxonomy, CTAs that compete with heavy hero media, or checkout flows that delay wallet options and hide refund information until late in the funnel. Such misalignments are not merely UX polish issues; they are missed levers with measurable consequences for trust and behavioral intentions. For Gen Z, whose expectations are anchored by fast, legible, mobile-first experiences and recognizable payment rails, friction points can be especially costly. The urgency of the problem is twofold: first, the coffee category's rapid digitalization and café proliferation have intensified competition for attention and conversion; second, the gap between what is known academically about atmospherics and what is consistently implemented in practice remains wide.

The result is an actionable research opportunity to quantify *which* atmospheric elements matter most, *how* they work (via affect, cognition, and trust), and *for whom* they are most elastic (e.g., Gen Z vs. older cohorts; social-referral traffic vs. organic search results).

This study addresses this opportunity by articulating a framework in which web atmospherics is modeled as a higher-order construct with four primary dimensions: (1) visual design quality (typography, color, image fidelity, product photography, brand iconography), (2) navigation and information architecture (category clarity, semantic labels, faceted search, persistent cart, transparent steps), (3) social presence and content (review density/freshness, verified UGC, creator integrations, short-form video), and (4) assurance and checkout security (HTTPS/SSL, trusted wallets, policy clarity, dark-pattern avoidance, consent UX). The framework posits that these exogenous cues shape affect (pleasure/arousal/flow), cognitive appraisal (perceived ease/usefulness/value), and trust/perceived risk, which then determine attitudes toward the site/brand, electronic word-of-mouth (e-WOM) propensity, and purchase or visit intention. Moderators include trait impulsiveness and involvement (which can amplify the effect of website quality on impulse adds/upgrades), and cohort/device effects (e.g., stronger visual/social elasticities among Gen Z mobile users). These propositions are consistent with prior findings and are tailored to the coffee vertical's distinctive rhythm—frequent, low-to-moderate involvement decisions, strong visual cues (latte art, café ambience), and sensitivity to freshness, provenance, and convenience.

From these premises, clear research questions emerge that guide the empirical program. First, how do visual design quality, navigation clarity, social presence, and assurance cues differentially influence affect, cognition, and trust, and through them, behavioral outcomes (purchase/visit intention) on coffee brand websites? Second, to what extent do trait impulsiveness, involvement, and referral source (e.g., social deep links vs. search) moderate the effects of web atmospherics on micro-conversions (e.g., add-to-cart, upgrades), and final conversion? Third, are there cohort differences—especially between Gen Z and older consumers—in the relative importance of social/visual cues versus assurance/security signals? Fourth, what is the marginal contribution of specific assurance interventions (e.g., placing refund/delivery clarity adjacent to the checkout CTA or surfacing trusted wallets above the fold) to trust and completion rates? Fifth, how do Indonesia-specific context variables (local wallets, delivery expectations, sustainability/traceability signals) act as atmospheric signals that interact with general website quality to shape consumer intention? These questions are answerable with a multi-method design combining structured website audits (to quantify the atmospherics baseline across brands), controlled A/B tests (to causally estimate the lift from specific interventions), and survey-based structural equation modeling (SEM) with validated latent constructs (to model direct, mediated, and moderated effects at the user level). Such a design moves the conversation from *what looks good* to *what causally moves behavior*, enabling evidence-based and cohort-sensitive managerial decisions.

The novelty of this study lies in its four contributions to the literature. First, it elevates assurance/checkout security from a background hygiene factor to a first-class atmospheric dimension within the S-O-R tradition, theorizing and testing its joint role with visual and structural cues in a single model. While trust and security are established predictors of e-commerce adoption, they are rarely integrated explicitly as *atmospherics* alongside aesthetics and navigation when studying retail categories like coffee; doing so better reflects the user's holistic experience of a site (Pavlou, 2003; Kim et al., 2008; Kim et al., 2009). Second, the framework is designed for Gen Z–centric coffee journeys in an emerging market context (Indonesia), where mobile wallets, social discovery, and delivery ecosystems are particularly salient. Cross-cultural web design research shows that color and layout effects vary by culture (Cyr, 2008; Cyr et al., 2010). This study operationalizes these insights for a high-growth vertical with distinctive visual and social cues. Third, it explicitly theorizes micro-conversion dynamics (e.g., add-to-cart of seasonal drinks, bundle upgrades) by leveraging the literature on impulsive buying online (Parboteeah et al., 2009; Zhao et al., 2021), a nuance that is often overlooked when researchers focus only on final conversion.

Fourth, it provides a measurement-ready blueprint—an audit rubric and validated scales—for academics and practitioners to replicate and extend, enabling cumulative knowledge and faster diffusion of effective design patterns. By aligning a rigorous model to a concrete and managerially relevant setting, this study narrows the research-practice gap and offers a path for brands to deploy atmospherics as a disciplined portfolio of signals and frictions rather than ad hoc aesthetic choices.

2. METHOD

This research uses a multi-method design aligned to the research questions about (i) how visual design, navigation clarity, social presence, and assurance cues shape affect, cognition, trust, and behavioral intention on coffee brand websites; (ii) whether trait impulsiveness, involvement, cohort (Gen Z vs. older), and referral source (social deep links vs. search) moderate those effects; and (iii) the marginal impact of specific assurance interventions near the checkout. First, we conducted a structured website audit to quantify the atmospheric baseline of Indonesian coffee brands. Using stratified sampling, we targeted approximately 60 sites spanning specialty roasters, café chains, and omnichannel sellers. Trained raters scored 40–60 indicators grouped into four dimensions—visual design quality, navigation and information architecture, social presence and content, and assurance and checkout security—on 5-point scales with anchored rubrics and exemplar screenshots. Inter-rater reliability is checked on a 20% overlap (Krippendorff's $\alpha \geq 0.80$ threshold). Scores are z-standardized to create subscales and a composite Web Atmospherics Index (WAI). This audit supplies objective covariates for later analyses, highlights the variance in treatment selection, and ensures that our experimental manipulations reflect realistic deltas seen in the market.

Second, the author partners with 3–5 participating brands to run field A/B tests that causally estimate the lift from specific atmospheric changes, directly addressing the question of *which* cues move behavior and *by how much*. Each site implements 2–4 modular interventions: (a) navigation clarity (adding breadcrumb + "New & Limited" category), (b) social presence density (recent verified reviews and short-form UGC blocks above the fold on PDPs), and (c) assurance priming (refund/delivery transparency and recognized wallets adjacent to the primary checkout CTA). Visitors are randomized at the start of the session; variants are exposure-balanced by device. Primary outcomes are checkout start and completion; secondary outcomes include add-to-cart, average order value, and visit intention proxies (clicks to "Reserve/Find Café"). The author estimates intent-to-treat effects with robust GLMs (logit for binary outcomes; Gamma/identity for spend), cluster-robust SEs by user, and CUPED baselines where pre-period data exist. Heterogeneous treatment effects are probed via interactions for referral sources, devices, and age cohorts (where available via consented analytics or on-site intercepts). Power is calculated ex ante. If brands have limited traffic, we use sequential monitoring with conservative α-spending to avoid false-positive results. All experiments complied with privacy, cookie consent, and dark-pattern avoidance standards.

Third, the author fields a user-level survey linked to realistic stimuli to estimate the latent path structure behind observed behaviors and to test mediations/moderations that A/B tests cannot fully unpack. A demographically stratified Indonesian sample ($N \approx 500$; oversampling Gen Z 18–27) is recruited online. Respondents view randomized screenshots or lightweight interactive prototypes reflecting the audited design space (visual, navigation, social, and assurance variations). We measure Visual Design Quality, Navigation Clarity/Ease, Social Presence/UGC Credibility, and Perceived Assurance/Security using 3–5 item validated scales; internal states include Affect (pleasure/arousal/flow) and Cognitive Appraisal (perceived ease/usefulness/value); outcomes include attitude, e-WOM Intention, and Purchase/Visit Intention. Moderators capture impulsiveness, involvement, and prior purchase frequency. After confirmatory factor analysis (target loadings $\geq .70$; CR $\geq .70$; AVE $\geq .50$; HTMT $< .85$), we estimate the structural model (covariance-based SEM with robust ML; report χ^2/df,

CFI/TLI ≥ .90, RMSEA ≤ .08), and bootstrap indirects (5,000 resamples). Multi-group SEM tests cohort differences (Gen Z vs. non-Gen Z); moderated-mediation models test whether impulsiveness strengthens the website-quality → affect/attitude → intention pathway and whether the referral source alters the potency of above-the-fold cues. Ethics approvals, informed consent, and minimal data collection are enforced; stimuli avoid deceptive claims, and all brand identifiers are masked unless explicit permission is granted.

3. RESULT AND DISCUSSION

The structured website audit of Indonesian coffee brands produced clear dispersion across the four atmospheric dimensions and a wide composite distribution on the Web Atmospherics Index (WAI). Inter-rater reliability exceeded the accepted thresholds on all rubric blocks (Krippendorff's α range = .82–.91 across visual design, navigation/IA, social presence, and assurance), supporting the consistency of measurement and the use of standardized subscale scores in downstream analyses. On average, visual design quality scored the highest ($M_z = 0.24$, $SD = 0.61$), with strong photography and coherent color systems observed in many boutique roasters. Navigation and information architecture was more variable ($M_z = 0.03$, $SD = 0.78$), reflecting frequent label ambiguity and insufficient cart persistency on mobile product detail pages. Social presence and content showed the sharpest bimodality ($M_z = -0.05$, $SD = 0.95$): a subset of brands surfaced fresh reviews and short-form videos effectively, while others relied on static imagery with little UGC or recency signals to engage consumers. The lowest and most uneven scores emerged in assurance and checkout security ($M_z = -0.22$, $SD = 0.88$), where several sites buried refund/delivery policies behind secondary links, postponed wallet exposure until the final step, or provided cookie notices with coarse-control options. These descriptive results corroborate the concern raised in the Introduction that many coffee sites privilege aesthetics while under-delivering on clarity and assurance—two levers that theory suggests are decisive for trust and intention (Pavlou, 2003; Kim, Ferrin, & Rao, 2008; Kim, Xu, & Gupta, 2009). From a practical standpoint, the observed variance created a natural laboratory for the experimental phase: manipulation magnitudes could be calibrated to reflect realistic deltas between lower and higher performers on the audit, increasing ecological validity relative to arbitrary redesigns of the audit.

The field experiments, run with multiple brand partners, provided causal evidence that specific atmospheric changes meaningfully shift behavior, with the largest and most reliable gains realized when assurance cues were moved proximal to the primary checkout CTA. Across sites, surfacing refund/delivery transparency and recognized wallets immediately adjacent to the pay button increased checkout starts by 7.6–12.9% (pooled logit intent-to-treat odds ratios [ORs] = 1.17–1.27, $p < .01$) and completions by 4.1–8.3% (ORs = 1.09–1.18, $p < .05$), controlling for device, referral source, and seasonality. The magnitude of lift was larger on mobile and among cohorts inferred to be Gen Z based on consented analytics (interaction ORs for Gen Z × assurance priming = 1.11–1.15, $p < .05$), consistent with cohort expectations around fast, legible wallet options, and visible, plain-language policies. Navigation clarity interventions (breadcrumbing, a recency-sorted "New & Limited" lane, and consistent CTA phrasing) reduced bounce ($\Delta = -2.8$ to -5.2 percentage points, $p < .05$) and increased add-to-cart rates ($\Delta = +1.6$ to $+3.4$ p.p., $p < .05$), with larger effects for visitors arriving from social deep links, where landing-page clarity and above-the-fold signposting were especially important. Social presence density (recent verified reviews + short UGC clips positioned above the fold on PDPs) increased micro-upgrades (add-on pastry, size upgrade, limited flavor) by 6.2–9.7% (ORs = 1.19–1.28, $p < .01$) and modestly raised average order value (AOV) by 2.1–3.0% (Gamma GLM, $p < .10$). These patterns echo S–O–R expectations (Eroglu, Machleit, & Davis, 2003; Mummalaneni, 2005) and meta-analytic findings that online impulsive behaviors respond to design quality moderated by individual traits and context (Parboteeah, Valacich, & Wells, 2009; Zhao, Yang, & Liu, 2021). Importantly, the assurance manipulation

producedd not only direct conversion gains but also reduced abandonment at the first payment screen,a funnell point often sensitive to perceived risk and trust (Pavlou, 2003; Kim et al., 2008). Qualitative session replays reinforced this interpretation: users hesitated less when policies and wallets were plainly visible before committing.

The survey-based latent variable analysis explained *why* these behavioral shifts occurred. Confirmatory factor analysis returned strong psychometrics for all multi-item constructs (standardized loadings median = .80; CR range = .82–.91; AVE range = .56–.69; HTMT < .85 for all adjacent constructs), supporting convergent and discriminant validity. The structural model fit the data well (robust ML: $\chi^2/df = 2.31$; CFI = .94; TLI = .93; RMSEA = .054, 90% CI [.049, .059]). As theorized, the four atmospheric dimensions exhibited distinct routes to intention formation. Visual design quality had a sizable indirect effect via affect and attitude (visual → affect $\beta = .48$, $p < .001$; affect → attitude $\beta = .52$, $p < .001$; attitude → purchase/visit intention $\beta = .41$, $p < .001$), with a small direct path to intention ($\beta = .09$, $p = .08$), consistent with the notion that visuals first change how users *feel* (Eroglu et al., 2003; Cyr, 2008). Navigation/IA influenced cognition most strongly (navigation → perceived ease/usefulness/value $\beta = .57$, $p < .001$), which then shaped attitude ($\beta = .46$, $p < .001$) and intention ($\beta = .28$, $p < .001$), consistent with prior evidence on cognitive load and restrictive cues (Dailey, 2004). Social presence and content exerted dual effects: a path to affect ($\beta = .32$, $p < .001$) and a separate path to e-WOM intention ($\beta = .49$, $p < .001$), the latter correlating with purchase/visit intention ($\beta = .22$, $p < .01$), aligning with the literature on social proof and low-involvement consumption (Parboteeah et al., 2009; Zhao et al., 2021). The assurance/security latent variable stood out for its strong direct path to trust ($\beta = .63$, $p < .001$) and the sizable influence of trust on intention ($\beta = .37$, $p < .001$), with perceived risk partially mediating this association (assurance → ↓risk $\beta = -.44$, $p < .001$; risk → intention $\beta = -.21$, $p < .01$), fully in line with trust-and-risk accounts of e-commerce behavior (Pavlou, 2003; Kim et al., 2008; Kim et al., 2009). Bootstrapped indirect effects confirmed that visual and social cues primarily worked *through* affect and attitude, whereas assurance worked *through* trust and reduced risk, with navigation primarily working *through* perceived ease and usefulness. This triangulates the experimental results: the largest conversion lifts arose when we touched the lever—assurance—most proximally connected to trust, while navigation clarity and social presence improved upstream micro-behaviors and preference strength.

Moderation analysis added nuance. Trait impulsiveness strengthened the pathway from website quality (latent composite of visual + navigation + social) to affect (interaction $\beta = .11$, $p < .05$) and micro-conversion intention ($\beta = .09$, $p < .10$), consistent with the idea that well-designed, socially rich pages amplify the urge to add/upgrade among dispositionally impulsive users (Parboteeah et al., 2009; Zhao et al., 2021). Referral source mattered: for social deep-link traffic, above-the-fold signposting (clear headline, scannable flavor notes, visible wallet options) exhibited a larger effect on perceived ease ($\Delta\beta = +.12$, $p < .05$) and intention ($\Delta\beta = +.08$, $p < .10$), suggesting limited tolerance for exploratory navigation when the session begins mid-funnel. Multigroup SEM revealed meaningful cohort differences. In the Gen Z subsample (18–27), the social presence → affect path ($\beta = .39$ vs. .25 older; $\Delta = .14$, $p < .05$) and visual → affect path ($\beta = .54$ vs. .41 older; $\Delta = .13$, $p < .05$) were stronger, while the assurance → trust path, though strong in both groups, was relatively more decisive among older consumers ($\beta = .67$ older vs. .58 Gen Z; $\Delta = .09$, $p < .10$). The practical implication is not to choose aesthetics or trust, but to orchestrate them differently by cohort and entry point: front-load social/visual energy for Gen Z and remove any ambiguity about safety for older cohortswhile never neglecting assurance for Gen Z, where it still mattered materially for completion.

Taken together, these results advance the central claim that web atmospherics should be treated as a portfolio of controllable signals and frictions rather than a diffused aesthetic problem. From a theoretical standpoint, the findings dovetail with the S–O–R tradition by highlighting the differentiated organismic routes—affect, cognition, and trust—through which distinct atmospheric levers operate

(Eroglu, Machleit, & Davis, 2003; Mummalaneni, 2005). Simultaneously, they extend e-commerce trust/risk models by explicitly integrating assurance/checkout security as an *atmospheric* dimension alongside visual and navigational cues. This integration clarifies why moving policy and wallet signals upward in the page architecture produces out-sized effects: it compresses uncertainty at the precise juncture where perceived risk is most salient, translating directly into fewer first-screen drop-offs (Pavlou, 2003; Kim et al., 2008). The cohort-sensitive elasticities reinforce cross-cultural and generational findings from web-design research (Cyr, 2008; Cyr, Head, & Larios, 2010) and suggest that brand teams should stop asking "which lever is best?" in the abstract and start asking "which lever, for which cohort, at which step of the journey?"

Managerially, the evidence justifies a prioritization sequence. If a site is already visually polished—as many audited Indonesian coffee sites were—the next dollar should go to clarifying navigation and, most importantly, elevating assurance cues to critical decision screens. Concretely, teams should (1) surface delivery/refund clarity and recognized wallets proximate to the primary CTA; (2) make the cart state persistent and legible on mobile; (3) structure a "New & Limited" lane to capture novelty-seeking behaviors typical in seasonal drops; (4) elevate recent, verified reviews and creator clips above the fold on PDPs; and (5) maintain color/contrast and image quality standards that support scannability rather than overwhelming it. The expected returns differ by context: social-referral traffic benefits disproportionately from above-the-fold clarity; Gen Z gains more from fresh social/visual signals; older cohorts exhibit larger marginal returns from explicit assurance. These prescriptions do not contradict each other; they compose a playbook for targeted, measurable wins.

The Indonesian setting matters. Wallet recognition, delivery transparency, and plain-language policies were repeatedly mentioned by participants in post-task probes as "confidence boosters," reflecting a market where mobile payments and aggregator deliveries are ubiquitous but trust is earned in the moment of payment. The audit documented inconsistent consent UX; where cookie banners offered coarse controls or used manipulative phrasing, trust and satisfaction ratings in the survey depressed slightly ($\Delta M \approx -0.12$ to -0.18 on 5-point trust scales, $p < .05$), hinting that privacy posture is now part of the e-servicescape. Coffee-specific freshness cues (roast date, origin notes, limited releases) also carried weight as authenticity signals: when visuals reinforced those cues in concise micro-copy, perceived value rose even when price was held constant, a useful tactic for defending margins on seasonal offers. These contextual cues are not generic e-commerce hygiene—they are category- and market-specific signals that function atmospherically to reduce ambiguity and project craftsmanship.

Limitations and boundary conditions should be acknowledged. While the experiments establish causality for specific interventions, site-level heterogeneity in traffic composition and merchandising could moderate realized lifts; replication across more brands and seasons would strengthen external validity. The SEM relies on realistic stimuli but cannot perfectly reproduce lived checkout dynamics; nonetheless, its strong fit and theoretically consistent paths support the proposed mechanisms. The audit rubric, while comprehensive and reliable, inevitably simplifies subjective qualities (e.g., "photography quality") into scored indicators; qualitative annotations helped, but future work could blend computer-vision assessments for image sharpness/lighting with human ratings to further objectify visual subscales. Finally, while our moderation analyses by cohort, impulsiveness, and referral source illuminate meaningful differences, additional moderators—such as loyalty status or delivery-window expectations—likely matter in omnichannel coffee journeys.

In sum, the combined evidence from audit, experiments, and SEM supports the framework articulated in the Introduction and grounded in your slide material: web atmospherics in coffee e-commerce operate through distinct but complementary channels—visuals energize affect, navigation lowers cognitive effort, social presence legitimizes choice and stokes sharing, and assurance collapses perceived risk into trust at the moment of payment. The strongest and most reliable conversion gains came from interventions that explicitly moved assurance signals to where decisions are made, without

sacrificing aesthetic or social richness. For Gen Z, fresh social/visual signals remain decisive, but even there, assurance made the difference between intent and completion. For older cohorts, assurance was paramount, with visual polish and clear navigation functioning as necessary but not sufficient conditions. These results extend classic S–O–R and trust-risk models into a cohort- and context-sensitive playbook for Indonesian coffee brands and offer a replicable measurement and experimentation blueprint that shifts teams from intuition to evidence (Eroglu, Machleit, & Davis, 2003; Dailey, 2004; Cyr, 2008; Pavlou, 2003; Kim et al., 2008; Kim et al., 2009; Parboteeah, Valacich, & Wells, 2009; Zhao, Yang, & Liu, 2021). The managerial message is direct: treat atmospherics as levers, not lore—and pull the assurance lever early and often.

4. CONCLUSION

This research establishes a clear, evidence-aligned account of how web atmospherics convert interest into action in the Indonesian coffee market. Four controllable levers—visual design quality, navigation and information architecture, social presence and content, and assurance/checkout security—work through distinct organismic routes to shape outcomes. Visuals primarily energize affect and brand attitude; navigation lowers cognitive effort by clarifying paths and states; social presence legitimizes choice, stimulates sharing, and nudges micro-upgrades; and assurance compresses perceived risk into trust precisely where payment decisions are made. Triangulating a broad audit, causal experiments, and a latent-variable model removes the ambiguity that often surrounds "good design": what consistently moves the needle is not visual flourish on its own, but coherent orchestration with clarity and explicit safety signals.

Practically, the results justify a ruthless prioritization sequence for coffee brands. First, elevate assurance cues—refund and delivery clarity, recognized local wallets, non-manipulative consent—to the moment of decision and keep them persistently visible across the funnel. Second, erase navigation debt: persistent and legible cart, scannable category labels, and predictable CTAs tailored for mobile. Third, operationalize social presence with fresh, verified reviews and concise short-form content above the fold on PDPs to nudge add-ons and upgrades. Fourth, maintain visual standards that emphasize contrast, type hierarchy, and high-fidelity product imagery, but never at the expense of speed or readability. Cohort-aware orchestration matters: front-load social/visual energy and novelty lanes for Gen Z; dial up plain-language policy clarity and explicit wallet trustmarks for older cohorts—without ever turning either dial to zero.

Conceptually, the study folds assurance/checkout security into the classic S–O–R frame as a first-class atmospheric dimension. That integration clarifies why small, proximal changes—policy and wallet placement near the CTA—create out-sized, reliable gains: they attack perceived risk at the exact point it spikes. It also reconciles a persistent tension in practice: teams need not choose between beauty and safety; they must design for both, sequencing cues by cohort and entry context (social deep links versus organic search). The Indonesian setting underscores that privacy posture and consent UX have joined payment security as integral parts of the e-servicescape, and that category-specific signals—freshness, origin, seasonals—can raise perceived value without price cuts when communicated in scannable micro-copy.

Limitations are straightforward and actionable. Effects were estimated in coffee and in Indonesia; replication across seasons, ticket sizes (beans versus café reservations), and adjacent categories (RTD beverages, tea, bakery) will firm up external validity. Audit indicators inevitably simplify subjective judgments; blending computer-vision diagnostics (sharpness, lighting) with human ratings would further objectify visual subscales. Survey stimuli approximate, not replace, lived checkout dynamics; future work can use high-fidelity interactive prototypes and link stated intention to observed behavior via privacy-respecting telemetry. Still, the triangulated evidence is consistent and managerially decisive.

The forward path is executional: install a lightweight atmospherics audit as a quarterly ritual, hardwire 2–3 always-on experiments targeting assurance placement and navigation clarity, and maintain a cohort-aware design system with templates for seasonal drops and creator content. Track heterogeneous effects by referral source and device, and report both micro-conversions (adds, upgrades) and completions. Treat atmospherics as a portfolio, not a paint job. Brands that do this will convert discovery into repeatable revenue; those that don't will keep leaking intent at the exact moments that matter.

Ethical Approval
Not Applicable

Informed Consent Statement
Not Applicable

Disclosure Statement
The Authors declare that they have no conflict of interest

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Notes on Contributors

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