

H-D N-IMPACT FRAMEWORK FOR SUSTAINABLE DIGITAL MARKETING: INTEGRATING LIVING HERITAGE, HALAL TRUST, AND SOSTAC IN KESAWAN TOURISM MSMEs

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Abstract

Digital transformation among tourism MSMEs does not automatically integrate heritage value, sustainability, halal integrity, and measurable marketing outcomes. This study develops and evaluates the H-D N-Impact Framework for the heritage-tourism and halal-culinary ecosystem of Kesawan, Medan. Using exploratory qualitative Design Science Research Methodology, the diagnosis involved 12 MSME operators, five visitors, and an FGD with three regulatory stakeholders. NVivo-assisted hybrid thematic analysis combined inductive-deductive coding, cross-case and negative-case analysis, and cross-stakeholder triangulation. Eight themes informed the artifact: living heritage experience, digital conversion capability, authenticity and information transparency, halal trust, multidimensional sustainability, event activation, readiness-based implementation, and impact/conversion/advocacy. H-D N-Impact integrates Heritage Experience, Digital Conversion Capability, Nachhaltigkeit/Sustainability, Halal Trust, and Impact through SOSTAC and three readiness tiers. Five expert-practitioners evaluated V3 (overall mean 4.23/5; conceptual rigor 4.40; structural logic 4.10; utility/applicability 4.20), all recommending minor revisions. Final refinement strengthened historical integrity, tier-based metrics, halal applicability, observable sustainability indicators, and simplified readiness tools.

Keywords: sustainable digital marketing; living heritage; halal trust; tourism MSMEs; SOSTAC; Design Science Research

INTRODUCTION

Destination competitiveness increasingly depends on integrating visitor experience, digital technology, and sustainability. Sustainable digital marketing extends promotion toward engagement, information management, data use, and responsible value creation, yet tourism research remains fragmented across these areas (Mandagi et al., 2026). Medan's gastronomic potential likewise requires stronger strategy, branding, promotion, and tourism routes (Pramezwary et al., 2022), making Kesawan—where heritage, commerce, culinary businesses, the creative economy, and MSMEs coexist—a relevant setting. Kesawan's revitalized heritage assets support cultural activity, the creative economy, and visitor experience. MSMEs can differentiate through local identity and storytelling, but narratives must remain historically verifiable. Social media, Maps, ordering platforms, UGC, and reviews shape visitor decisions, yet value depends on consistent content, complete information, responsiveness, data use, and conversion—not platform count. Marketing 5.0 similarly positions technology as a means of strengthening human-centered value (Kotler et al., 2021).

For culinary MSMEs, halal links destination development, behavior, marketing, technology, communication, quality, and satisfaction (Alimusa et al., 2024; Hendrik et al., 2024). Halal content can also strengthen trust and image and thereby visit intention (Anwar, 2026). Thus, halal concerns product and process assurance, credible information, consumer confidence, and market trust. Sustainability must also be integrated. The Triple Bottom Line covers economic, social, and environmental performance (Elkington, 1997), while heritage tourism additionally requires cultural continuity and narrative integrity. For Kesawan MSMEs, sustainability therefore includes business resilience, local economic contribution, environmental responsibility, community involvement, and preservation of place character. Although digital marketing, heritage, halal, and sustainability are well developed separately, MSMEs still lack an operational framework connecting authenticity, trust, responsible

practice, and digital performance to diagnosis, objectives, strategy, tactics, action, and control. H-D N-Impact addresses this gap by integrating Heritage identity, Digital capability, Nachhaltigkeit/Sustainability, Halal Trust, and traceable Impact. SOSTAC operationalizes these domains through Situation, Objectives, Strategy, Tactics, Action, and Control. Because the aim is to build and evaluate a usable artifact, the study follows Design Science Research and DSRM (Hevner et al., 2004; Peffers et al., 2007). MSME, visitor, and regulatory evidence informs iterative development, demonstration, evaluation, and readiness-based SOSTAC implementation.

LITERATURE REVIEW

Sustainable Digital Marketing and Digital Capability

Sustainable digital marketing extends digital marketing from short-term acquisition toward value creation aligned with sustainability objectives (Panggabean et al., 2023). Mandagi et al. (2026), reviewing 122 publications, identify digital infrastructure, governance, communication and engagement, stakeholder participation, sustainability practices, and responsible tourism value creation as central themes.

These findings imply that technology, strategy, and impact must be connected in a usable framework. Here, digital capability means more than owning social-media accounts: it includes content production, consistency, information and touchpoint management, analytics, and conversion. A business may be active on Instagram or TikTok yet lack a content calendar, designated PIC, systematic insight review, or a way to connect content with visits and transactions.

Living Heritage, Authenticity, and Storytelling

Heritage value includes place identity, historical narratives, atmosphere, experience, and cultural meaning. Digital storytelling can increase narrative transportation and travel intention toward cultural-heritage destinations (Chang et al., 2025; Sinha & Chinki, 2026). Attractiveness must remain consistent with historical integrity. Because not every MSME product has a documented Kesawan history, this study distinguishes product heritage from place-based living heritage, allowing businesses to use the area's atmosphere and stories without unsupported historical claims.

Halal Integrity and Consumer Trust

Halal-tourism studies highlight compliance, destination development, behavior, marketing, and satisfaction (Alimusa et al., 2024), while digital halal-tourism research connects technology, communication, quality, and satisfaction (Hendrik et al., 2024). Together, these findings show that halal considerations are closely tied to communication and digital consumer experience. Anwar (2026) shows that halal culinary content can strengthen trust and image, which support behavioral intention. Accordingly, this study conceptualizes a Halal Trust Layer linking ingredient assurance, certification, process consistency, visible communication, reassurance, and inclusive trust.

Nachhaltigkeit and the Triple Bottom Line

The Triple Bottom Line emphasizes economic performance, social equity, and environmental protection (Elkington, 1997). In heritage tourism, cultural continuity must also be explicit because historical identity and integrity may decline even when economic, social, and environmental indicators appear positive. In H-D N-Impact, Nachhaltigkeit is a label for sustainability comprising economic resilience, environmental responsibility, local social value, and heritage sustainability. In practical guidance, the term is always paired with “sustainability” for clarity.

SOSTAC and the Position of H-D N-Impact

SOSTAC is used as an implementation architecture, not as a claim of theoretical novelty. Situation diagnoses current conditions; Objectives set targets; Strategy defines value direction; Tactics select instruments; Action organizes implementation; and Control evaluates results. Its established use in digital marketing planning (Chaffey & Smith, 2023) makes it suitable for translating H-D N-Impact into actionable MSME steps. H-D N-Impact contributes by configuring Heritage Experience, Digital Conversion Capability, Nachhaltigkeit, Halal Trust, and Impact within one operational structure for heritage-tourism and halal-culinary MSMEs, then refining that configuration through field evidence and cross-stakeholder triangulation.

METHOD

DSR Design and Stages

This exploratory qualitative study uses Design Science Research because DSR develops and evaluates solution-oriented artifacts (Hevner et al., 2004). It follows DSRM stages of problem identification, solution objectives, design/development, demonstration, evaluation, and communication (Peppers et al., 2007). MSME barriers, visitor needs, and regulatory perspectives became design requirements for H-D N-Impact V1-V3. Demonstration matched components to MSME needs, while evaluation combined cross-stakeholder triangulation, a regulator FGD, and independent validation of V3. Both evaluation stages informed the final expert-refined artifact.

Informants and Data Collection

The diagnosis involved 12 purposively selected MSME operators, five Kesawan visitors, and one FGD with three tourism, promotion, and halal-assurance stakeholders. Sampling captured business and digital-maturity variation. Because FGD statements were not speaker-attributed, regulatory data were treated as one source.

Table 1. Characteristics of Data Sources and Their Roles in Artifact Development

Group	Unit of analysis	Number	Role in artifact development
MSMEs	Individual business case	12	Supply-side diagnosis: practices, barriers, readiness, implementation needs
Visitors	Individual visitor case	5	Demand-side diagnosis: discovery, trust, information, conversion, advocacy
Regulators/stakeholders	FGD source (3 participants)	1 source / 3 participants	Policy, heritage, digitalization, halal, sustainability, events, and indicators
Total individual participants	-	20	Basis for stakeholder refinement before expert evaluation

NVivo-Assisted Data Analysis

NVivo-assisted hybrid thematic analysis combined inductive coding with deductive mapping to H-D N-Impact and SOSTAC (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). NVivo supported source management, coding, comparisons, memos, and the audit trail; interpretation remained a researcher judgment. Analysis included within-case and stakeholder synthesis, cross-case and negative-case analysis, triangulation, SOSTAC mapping, and artifact refinement. Theme importance was judged by depth, distribution, convergence/divergence, negative cases, and relevance rather than coding frequency. Credibility relied on MSME-visitor-regulator triangulation and an artifact audit trail. Missing data were not treated as negative, undocumented halal status remained self-reported, and researcher memos were separated from informant evidence.

Formative Evaluation, Independent Expert Validation, and Audit Trail

Evaluation occurred in two stages: formative stakeholder triangulation/FGD to refine V3, followed on 7 August 2026 by five expert-practitioners with 5-15 years of relevant experience. They rated Conceptual Rigor, Structural Logic, and Utility & Applicability, answered qualitative questions, and judged feasibility. Means, medians, ranges, and thematic feedback guided refinement; no inferential claims were made because the panel was small.

RESULTS AND DISCUSSION

Results

Synthesis of Main Themes

Analysis of 12 MSME cases, five visitors, and the regulator FGD produced eight themes that both describe current conditions and define design requirements for H-D N-Impact (Table 2).

Table 2. Final Themes, Main Subthemes, Stakeholder Support, and Framework Implications

Final theme	Main subthemes	Stakeholder support	Framework implication
Living Heritage Experience	Identity; atmosphere; integrity; story	All	Place-based heritage
Digital Conversion Capability	Presence; execution; analytics; conversion	All	Presence -> outcomes
Authenticity & Information Transparency	Reviews; UGC; price; menu; hours; location	Visitors/regulators	Conversion information
Halal Trust	Assurance; certification; process; communication	All	Compliance + trust
Multidimensional Sustainability	Economic; environmental; social; heritage	All	Beyond cleanliness
Event & Physical Market Activation	Foot traffic; weather; events; outcomes	MSMEs/regulators	Measurable tactic
Readiness-Based Implementation	Foundation; execution; optimization	MSMEs/regulators	Tiered intervention
Impact, Conversion & Advocacy	Visit; purchase; repeat; review; eWOM	All	Impact loop

Living Heritage Experience

Kesawan's heritage value emerged mainly as place-based experience rather than product history. Most MSMEs reported no direct historical product link, whereas Taichan Tengah Kota used old buildings, nighttime atmosphere, nostalgia, and local identity; visitors similarly recognized heritage through buildings and atmosphere. The finding supports experiential living heritage without requiring product historiography. Regulators added historical integrity as a boundary: commercial storytelling may activate living heritage but should not fabricate or reduce the area's historical character to decoration.

Digital Conversion Capability

Digital adoption was common, but analytics remained inconsistent even among multi-platform businesses such as Taichan Tengah Kota and Joki Coffee. Channel count therefore does not adequately measure capability. Maturity was also constrained by missing PICs, devices, fixed locations, continuity, account security, and measurement routines. Digital capability thus depends on organizational resources and sustained execution, not content creation alone. Visitor journeys included digital-first, WOM-plus-digital validation, and WOM-only patterns. Regulators emphasized Maps, prices, opening hours, reviews, UGC, inquiries, conversion, and repeat purchase, yielding a pathway from Presence -> Content -> Structured Execution -> Information Quality -> Analytics -> Conversion.

Authenticity, Information Transparency, and Digital-to-Physical Conversion

Visitors trusted consistent ordinary-user reviews and realistic product presentation more than influencer exposure alone, showing that reach does not automatically create authenticity or trust. Prices, opening hours, and location clarity were essential before purchase. Together with Maps, reviews, and UGC, these elements function as digital-to-physical conversion infrastructure. Effective content was synthesized as Attractive + Authentic + Informative + Actionable, supported by a minimum information set covering identity, menu/products, prices, hours, Maps/location, current visuals, customer evidence, relevant halal information, and a call to action.

Halal Trust

Halal practices varied from ingredient checking without business certification to attempted certification and reported formal certification with visible communication. These cases distinguish assurance, certification, process, and communication stages. Visitors viewed halal information as reassurance and inclusive public information; regulators linked it to protection, transparency, market expansion, competitiveness, and destination image. Halal therefore combines compliance and trust. The Halal Trust Pathway is Raw Material Assurance -> Certification Readiness -> Formal Certification -> Process Consistency -> Accurate Communication -> Reassurance -> Inclusive Market Trust -> Competitiveness. Non-applicable businesses receive N/A rather than a penalty.

Multidimensional Sustainability

Sustainability practices were mostly basic—cleanliness and waste collection—while separation, recycling, food-waste management, and eco-friendly packaging were inconsistent. Some MSMEs nevertheless supported local economic circulation through local or regional suppliers. Visitors valued visible practices such as cleanliness, waste bins, plastic reduction, recyclable packaging, and local involvement, while regulators added economic, environmental, social, and heritage perspectives. The stakeholder views are complementary across practice, perceived value, and system levels. Four Nachhaltigkeit dimensions resulted: Economic Resilience, Environmental Responsibility, Local Social Value, and Heritage Sustainability, extending Triple Bottom Line logic to Kesawan's heritage context.

Event, Physical Market Activation, and Readiness

Foot-traffic dependence makes weather, timing, security, and location important. Regulators reframed events such as Car Free Night as marketing tactics that should be measured through revenue, transactions, new visitors, engagement, reviews, repeat visits, and satisfaction. Readiness differed from basic guidance needs to advanced analytics/storytelling support, while one negative case saw little urgency for digital activity while foot traffic was adequate. Uniform intervention would therefore be inappropriate. The three tiers are Foundation (digital basics/information), Execution (PIC, calendar, workflow, UGC, reviews, Maps), and Optimization (analytics, conversion, storytelling, campaign and paid/influencer evaluation).

Impact, Conversion, and Advocacy

MSMEs judged success mainly through customers, transactions, and revenue; visitors added advocacy, and regulators emphasized repeat visits, reviews, and satisfaction. These outcomes move evaluation beyond likes and followers. The Impact Loop is Exposure -> Curiosity -> Information -> Validation -> Trust -> Navigation -> Visit/Order -> Purchase -> Experience -> Satisfaction -> Repeat -> Advocacy -> New Exposure, linking attention, conversion, business outcomes, and renewed awareness.

Three-Stakeholder Triangulation and Design Requirements

Table 3. Three-Stakeholder Triangulation and Design Requirements

Issue	MSMEs	Visitors	Regulators	Status	Design requirement
Heritage	Place assets	Buildings/vibe	Integrity	Convergent	Place-based heritage
Digital	Presence; weak analytics	Awareness/validation	Presence ≠ competence	Convergent	Maturity + conversion
Authenticity	Secondary	Honest reviews	Manage UGC	Convergent	Authenticity
Influencer	Reach	Trust limited	UGC priority	Partial	Reach vs trust
Price/location	Secondary	Critical	Price; hours; Maps	V-R convergence	Minimum information
Halal	Fragmented	Reassurance	Compliance + trust	Strong	Trust layer
Sustainability	Basic	Visible value	Four dimensions	Complementary	Four dimensions
Event	Foot traffic	Atmosphere	Measurable tactic	Complementary	Tactics + Control

Issue	MSMEs	Visitors	Regulators	Status	Design requirement
Impact	Customers/revenue	Visit/purchase/advocacy	Transactions/repeat	Strong	Impact loop

SOSTAC Operationalization

Table 4. Operationalization of H-D N-Impact through SOSTAC

SOSTAC	Key question	Heritage	Digital	Nachhaltigkeit	Halal Trust	Output
Situation	Current?	Story/assets	Maturity; PIC; Maps	Baseline	Ingredient/process/certification	Readiness audit
Objectives	Targets?	Identity	Visibility/conversion	Sustainability targets	Certification/trust	Target sheet
Strategy	Value?	Positioning	Journey/authenticity	Priorities	Trust proposition	Value proposition
Tactics	Tools?	Story/events	Reels; UGC; Maps	Packaging/waste	Accurate halal info	Channel plan
Action	Roles?	Story verification	PIC; calendar; SOP	Operational SOP	Documentation	90-day plan
Control	Metrics?	Integrity	Reach/conversion	Sustainability indicators	Trust signals	Dashboard

Development of the H-D N-Impact Artifact

Artifact development was iterative: literature produced the conceptual model; MSMEs shaped V1 around place-based heritage, digital maturity, halal fragmentation, and readiness; visitors shaped V2 around authenticity, transparency, trust, and advocacy; regulators shaped V3 around integrity, event metrics, multidimensional sustainability, and formal halal logic; expert validation then produced the final artifact.

Table 5. Evolution of the H-D N-Impact Artifact Based on DSR and Stakeholder Refinement

Version	Evidence base	Main changes	Status
Conceptual	Literature and proposal	Heritage + Digital + Nachhaltigkeit + Halal integrity + Impact; SOSTAC	Initial artifact
V1	12 MSMEs	Place-based heritage; digital maturity; halal fragmentation; readiness tiers	MSME-refined
V2	+ 5 visitors	Authenticity; price/location transparency; trust; advocacy loop	Visitor-refined
V3	+ regulator FGD	Historical integrity; event metrics; multidimensional sustainability; formal halal pathway	Stakeholder-refined
Final	+ 5 independent validators	Heritage integrity safeguard; tier-based KPIs; halal applicability/N-A rule; observable sustainability indicators; simplified readiness tools	Expert-refined final

Operational Outputs and Readiness Gate

SOSTAC is translated into practical outputs: Situation produces the H-D N Readiness Audit, Objectives the Outcome Target Sheet, and Strategy an Integrated Value Proposition. Tactics produces the Content and Channel Plan, Action the 90-Day Action Calendar/SOP, and Control the Dashboard. A Readiness Gate sets complexity: Foundation uses core business/information indicators, Execution adds reach, engagement, inquiries, and Maps actions, and Optimization adds conversion, repeat purchase, revenue, campaign, and paid/influencer evaluation.

The Minimum Digital Information Standard includes identity, products/menu, prices, opening hours, Maps/location, current visuals, reviews/UGC, relevant halal status, and a call to action. It addresses visitor-regulator priorities and recurring MSME information gaps.

Formative Stakeholder Evaluation and V3 Refinement

Formative evaluation added historical integrity, distinguished digital presence from competence, strengthened Maps/price/hour/review/UGC and conversion indicators, and shifted event evaluation from crowd size toward transactions, new visitors, reviews, satisfaction, and repeat visits. Regulators also linked halal to protection, transparency, trust, and competitiveness and expanded sustainability to economic, environmental, local-social, and heritage dimensions. MSME heterogeneity justified retaining the Readiness Gate and tiered implementation in V3.

Independent Expert Validation and Final Artifact Refinement

Expert validation yielded an overall mean of 4.23/5: Conceptual Rigor 4.40, Structural Logic 4.10, and Utility & Applicability 4.20. CR1 and UA2 were highest (4.60), while SL2 and UA1 were 3.80, indicating strong integration but a need for simpler indicators and implementation. All validators recommended only minor revisions.

Table 6. Independent Expert Validation Results for H-D N-Impact Framework V3

Item	E1	E2	E3	E4	E5	Mean
CR1	5	5	4	5	4	4.60
CR2	4	5	4	4	4	4.20
SL1	5	4	4	5	4	4.40
SL2	4	4	3	4	4	3.80
UA1	4	4	4	4	3	3.80
UA2	5	4	4	5	5	4.60

Note: CR = Conceptual Rigor; SL = Structural Logic; UA = Utility & Applicability. Dimension means: CR = 4.40; SL = 4.10; UA = 4.20; overall mean = 4.23.

Experts recommended five refinements: explicit historical-integrity safeguards; readiness-tiered KPIs and clear PIC/workflow; distinct halal assurance, certification, process, communication, and N/A rules; observable Sustainability/Nachhaltigkeit indicators; and simplified readiness and implementation tools.

Table 7. Synthesis of Expert Feedback and Final Artifact Refinement

Theme	Expert feedback	Final refinement
Historical integrity	Verify storytelling; preserve character	Integrity principle + checklist
Digital conversion & analytics	Simplify KPIs; assign PIC/workflow	Tiered KPIs + workflow
Halal applicability & trust	Separate assurance/certification/process/communication; allow N/A	Checklist + N/A + trust pathway
Sustainability	Use observable MSME indicators	Sourcing; waste; packaging; social value; continuity
Readiness & implementation	Clarify sequence; simplify tools	Readiness -> tier; checklist; 90-day plan; dashboard

No validator proposed a new main dimension, so the architecture was retained and refined for safeguards, applicability, measurement, and usability. “Expert-refined” supports conceptual, structural, and applicability quality, not causal effectiveness.

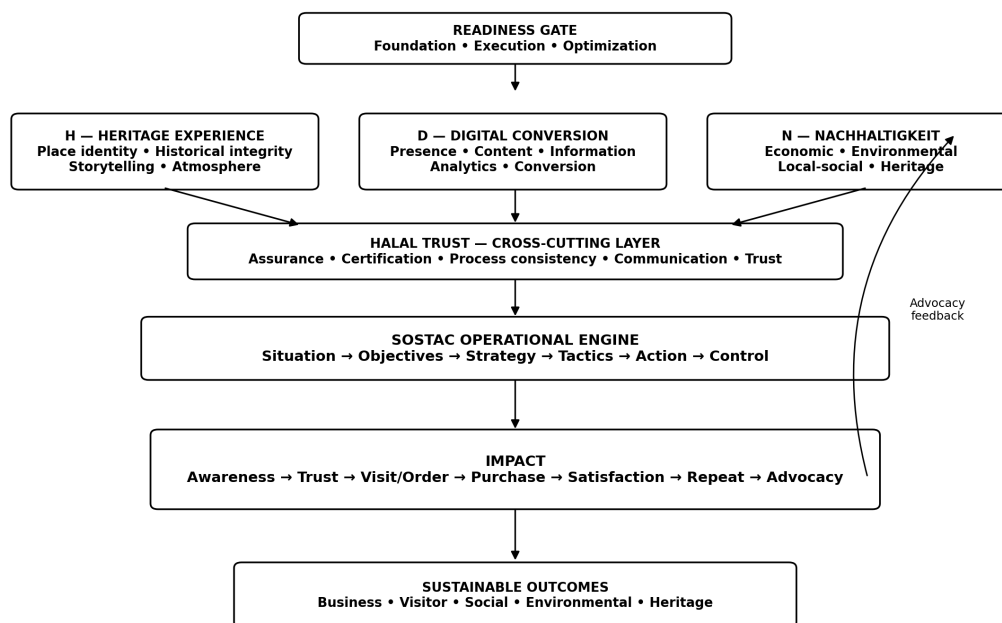


Figure 1. Expert-refined H-D N-Impact Framework. The Readiness Gate sets implementation complexity; Heritage, Digital Conversion, Sustainability/Nachhaltigkeit, and Halal Trust are operationalized through SOSTAC toward Impact and sustainable outcomes, with integrity safeguards, halal applicability, and tier-based Control.

Discussion

Living Heritage as Place-Based Marketing Capital

Kesawan heritage value is primarily place-based rather than dependent on historical product origins. This aligns with storytelling research on engagement and travel intention (Chang et al., 2025; Sinha & Chinki, 2026), while field evidence adds a safeguard against unsupported historical claims. The distinction between product heritage and living-heritage experience lets MSMEs use architecture, atmosphere, and local stories for differentiation while historical integrity protects against decorative or fabricated commercialization.

From Digital Presence to Digital Conversion Capability

Digitalization must be assessed beyond channel adoption. Multi-platform activity may coexist with weak measurement, consistent with Marketing 5.0's customer-value orientation (Kotler et al., 2021) and sustainable digital marketing's responsible-value emphasis (Mandagi et al., 2026). Digital Conversion Capability therefore spans presence, content, execution, information, analytics, and conversion; complete information, managed reviews/Maps, inquiry tracking, and visit/transaction evidence matter more than simply “having Instagram.”

Authenticity, Influencers, and Trust Formation

MSMEs often saw influencers as exposure tools, whereas visitors trusted ordinary-user or consistent reviews more. This fits research linking influencer effectiveness to authenticity and trust across the travel journey (Hill & Qesja, 2023; Pop et al., 2022). Accordingly, influencers mainly support reach, owned content provides information, UGC/reviews build trust, and Maps/messages/ordering channels enable conversion. Accurate prices, location, hours, and product representation therefore form trust infrastructure.

Halal Trust as Cross-Cutting Infrastructure

Halal is cross-cutting because technology, communication, quality, and satisfaction intersect in digital halal tourism (Hendrik et al., 2024), and halal content can strengthen trust and intention (Anwar, 2026). H-D N-Impact operationalizes this as assurance → readiness → certification → process consistency → communication → reassurance. Ingredient claims are not equivalent to certification, while uncommunicated certification provides weak market signaling. The framework therefore links, but does not conflate, compliance, communication, consumer protection, and inclusive market trust.

Sustainability: From Operational Practice to Strategic Value

Sustainability appeared across basic MSME practice, visible visitor value, and regulator-defined economic, environmental, social, and heritage responsibility. These levels are complementary: Triple Bottom Line dimensions remain, with heritage sustainability added for a living heritage destination.

Event Marketing and Readiness-Based Implementation

Foot-traffic dependence links digital and physical marketing. Events such as Car Free Night belong in Tactics and should be evaluated in Control through transactions, revenue, reviews, repeat visits, and satisfaction rather than crowd size alone. Foundation, Execution, and Optimization tiers reflect heterogeneous readiness and prevent uniform activities or KPIs across MSMEs.

Impact Loop and the Shift Away from Vanity Metrics

H-D N-Impact separates attention from value, conversion, business, and sustainable outcomes because MSMEs prioritize customers/revenue while visitors add advocacy. Reviews, Stories, WhatsApp Status, and WOM make advocacy a feedback mechanism that generates new exposure.

Novelty and Research Contributions

Novelty lies in empirically configuring established concepts: product heritage is distinguished from place-based living heritage. Digital adoption becomes Digital Conversion Capability; halal becomes a cross-cutting Halal Trust Layer; sustainability adds heritage sustainability; and all domains operate through readiness-based SOSTAC and the Impact Loop. The framework also yields practical tools—readiness audit, target sheet, value proposition, content/channel plan, action calendar/SOP, and dashboard—and links events to business and visitor outcomes.

Contributions to Design Science Research and Artifact Traceability

DSR provides traceability from the conceptual model through V1, V2, V3, and final refinement. MSME, visitor, regulator, and expert evidence successively changed requirements for digital maturity, authenticity/transparency, heritage integrity, event measurement, sustainability, halal applicability, KPIs, and usability. Traceability distinguishes evidence from synthesis: repeated needs for Maps, prices, locations, and hours support conversion infrastructure, while assurance, reassurance, and regulation support the synthesized Halal Trust Layer.

The artifact therefore reflects iterative design judgment across literature, field evidence, negative cases, stakeholder evaluation, and expert validation; its 4.23/5 mean supports “expert-refined” status, not causal effectiveness. Lower SL2/UA1 scores (3.80) motivated simplified tier-based tools, while CR1/UA2 scores (4.60) supported retaining the integrated structure.

Implications for MSME Assistance and Destination Governance

Readiness screening can replace generic training with tier-appropriate support from account/Maps basics to workflow and advanced analytics, enabling more precise assistance. Destination governance should pair verifiable heritage narratives with event management across pre-event awareness/navigation, on-site visits/transactions/UGC, and post-event reviews/advocacy. Halal support should continue from certification to communication and process consistency, while sustainability should use measurable practices beyond cleanliness. Together, responsible sourcing, waste management, employment, heritage preservation, and business continuity provide a shared implementation language.

CONCLUSION

H-D N-Impact was developed for Kesawan from 12 MSMEs, five visitors, and a regulator/stakeholder FGD. The core challenge is converting place identity into authentic experience, digital presence into conversion, halal assurance into trust, sustainability into measurable practice, and marketing into business/destination impact. The framework integrates Heritage Experience, Digital Conversion Capability, Nachhaltigkeit/Sustainability, Halal Trust, and Impact through SOSTAC, three readiness tiers, and a recursive Impact Loop. Expert validation averaged 4.23/5 (Conceptual Rigor 4.40; Structural Logic 4.10; Utility & Applicability 4.20), with only minor revisions recommended. Final refinement strengthened historical integrity, tier-based metrics, halal applicability, sustainability indicators, readiness assessment, and simplified tools. Pilot implementation remains necessary before universal or causal claims.

Practical and Policy Implications

Implementation should start with a readiness audit: Foundation prioritizes basics; Execution adds PIC, calendar, UGC, Maps, and inquiries; Optimization adds conversion, repeat purchase, campaign evaluation, and ROI. Government and destination programs should build competence in Maps/Business Profile, transparency, reviews, halal assistance, event measurement, and sustainability, evaluating events through transactions, visitor acquisition, satisfaction, reviews, and repeat visits.

Limitations and Future Research Agenda

Limitations include the single Kesawan context, uneven interview depth, partly self-reported halal status, FGD-source-level regulator analysis, and a five-person expert panel. Validation therefore supports conceptual, structural, and applicability judgments rather than effectiveness or transferability. Future research should pilot baseline-intervention-monitoring-post-evaluation designs, broaden validator panels, and replicate the framework in other heritage destinations.

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