

Digital Deception in Halal Business: Reconstructing Ethical Marketing for the Platform Economy

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Abstract: The diffusion of artificial intelligence (AI) into digital marketing is reshaping consumer-facing commercial practices while intensifying concerns surrounding algorithmic persuasion, digital deception, information asymmetry, and consumer autonomy. Existing governance approaches remain fragmented: halal governance emphasizes product integrity, certification, and supply-chain assurance, whereas responsible AI governance provides limited integration of Islamic ethical requirements. This study addresses this theoretical gap by examining how Islamic ethical principles can be translated into an operational governance architecture for AI-enabled halal business. Using a conceptual research design and integrative literature review, the study develops the Ethical Digital Governance Framework for Halal Business (EDGF-HB). Its novelty lies beyond proposing another framework by reconfiguring *ṣiḍq*, *amānah*, *ʿadl*, and avoidance of *tadlīs* as operational governance criteria within a Governance Theory-based architecture. EDGF-HB extends halal governance toward AI-mediated marketing through transparency, responsible AI, fairness, consumer protection, accountability, and ethical auditing. The framework offers practical pathways for regulators, certification bodies, AI developers, and halal businesses, while establishing propositions for future empirical validation.

Keywords: Artificial Intelligence; Halal Business; Islamic Business Ethics; Digital Governance; Digital Deception; Platform Economy

INTRODUCTION

The rapid expansion of artificial intelligence (AI) and platform-based commerce is transforming digital marketing through personalization, algorithmic recommendation, behavioral analytics, and generative AI. These technologies enable firms to improve efficiency and tailor communication to consumers, but they also increase the potential for algorithmic persuasion, information asymmetry, and deceptive digital practices (Huang & Rust, 2021). Digital platforms may employ dark commercial patterns, including fake scarcity, hidden costs, misleading defaults, and deceptive choice architectures, which can undermine informed consumer decision-making (Mathur et al., 2019; OECD, 2022). Consequently, the governance of AI-enabled marketing increasingly requires attention not only to technological performance but also to transparency, accountability, and consumer autonomy.

These concerns have strengthened the development of responsible AI governance. International frameworks such as the OECD AI

Principles, NIST AI Risk Management Framework, and ISO/IEC 42001 emphasize trustworthy AI, risk management, transparency, accountability, and human oversight (OECD, 2024; Tabassi, 2023; ISO, 2023). Recent research further argues that responsible AI governance requires the operationalization of ethical principles through structural, relational, and procedural mechanisms rather than treating ethics as abstract principles alone (Papagiannidis et al., 2025). AI governance is also increasingly recognized as a multi-actor issue, including governments, firms, technology providers, and other stakeholders (Buhmann & Fieseler, 2023; Keith, 2024).

These developments illustrate that AI-enabled digital marketing is not merely a technological innovation but a multi-actor governance environment in which algorithmic systems, platforms, businesses, and consumers jointly shape commercial decision-making. Figure 1 illustrates this ecosystem and highlights the principal governance risks that motivate the development of EDGF-HB.

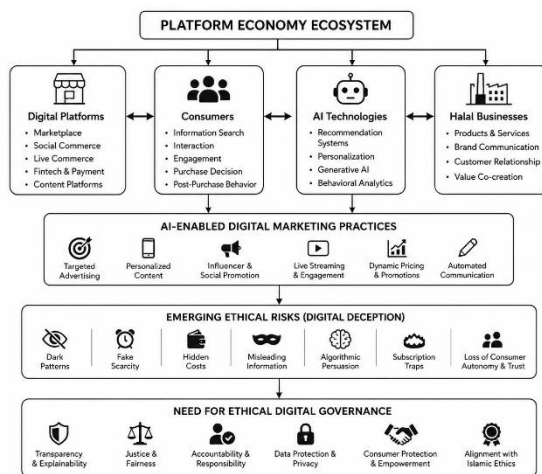


Figure 1. AI-Enabled Platform Economy and Emerging Governance Risks

These developments are particularly relevant to halal businesses. Existing halal governance has primarily emphasized product certification, halal assurance, traceability, and supply-chain integrity, while halal business research has given comparatively less attention to ethical governance of AI-enabled digital marketing (Tieman & Darun, 2017; Alimusa et al., 2024). This distinction is increasingly important because a product may satisfy conventional halal requirements while the digital marketing process used to promote it may involve misleading information, manipulative interfaces, or deceptive persuasion. Thus, the ethical legitimacy of halal business in the digital environment cannot be evaluated solely through product compliance; it also requires consideration of how consumers are informed, targeted, and influenced.

From the perspective of Islamic business ethics, commercial activities should uphold *ṣidq* (truthfulness), *amānah* (trustworthiness), and *ʿadl* (justice), while avoiding *tadlis* (deception) (Beekun & Badawi, 2005; Arham, 2010). These principles provide a normative basis for truthful communication, responsible data use, fair treatment, and protection of consumer autonomy. However, existing Islamic business ethics and halal governance literature has not sufficiently explained how

these principles can be translated into governance mechanisms for AI-mediated marketing and digital deception.

The unresolved problem is therefore not simply that halal governance has paid insufficient attention to AI. Rather, existing perspectives explain different parts of the problem without adequately explaining how they can be integrated into a governance mechanism for AI-enabled halal marketing. Responsible AI frameworks provide general mechanisms for managing technological risks, while halal governance focuses primarily on product and process compliance. Islamic business ethics establishes normative requirements for truthful, fair, and non-deceptive commercial conduct, but these principles have rarely been developed into an organizational governance architecture for AI-enabled marketing. Recent responsible-AI research similarly identifies the limited operationalization of ethical principles as an important unresolved issue (Papagiannidis et al., 2025).

This study addresses this theoretical gap by proposing the Ethical Digital Governance Framework for Halal Business (EDGF-HB). The framework adopts Governance Theory as its dominant theoretical lens, explaining governance in terms of coordination, accountability, rules, and monitoring among interconnected actors, while Islamic business ethics provides the normative criteria for evaluating governance legitimacy. EDGF-HB therefore integrates three previously fragmented domains: AI-enabled marketing risks, governance mechanisms, and Islamic ethical requirements. Its theoretical contribution is to extend halal governance beyond product-oriented compliance toward governance of the digital marketing process itself. Practically, the framework provides a basis for future empirical validation through measurable dimensions such as transparency, accountability, consumer protection, responsible AI management, and ethical

auditing.

CONCEPTUAL FRAMEWORK

Theoretical Foundation: Governance Theory and Islamic Business Ethics

The Ethical Digital Governance Framework for Halal Business (EDGF-HB) is primarily grounded in Governance Theory, which emphasizes coordination, accountability, rules, monitoring, and control among interconnected actors (Rhodes, 1996). This perspective is relevant to AI-enabled marketing because responsibility for algorithmic marketing practices is distributed across businesses, digital platforms, technology providers, regulators, and consumers. Contemporary AI governance similarly emphasizes the need to coordinate responsibilities across organizational and technological actors rather than relying solely on technical controls (Buhmann & Fieseler, 2023; Goos & Savona, 2024).

Within this framework, Islamic business ethics complements rather than replaces Governance Theory by providing the normative criteria for determining whether governance arrangements are ethically legitimate in halal business. The principles of *sidq* (truthfulness), *amānah* (trustworthiness), *ʿadl* (justice), and the prohibition of *tadllīs* (deception) require commercial activities to maintain honesty, fairness, transparency, and consumer protection (Beekun & Badawi, 2005; Arham, 2010). Thus, Governance Theory explains how governance is organized and implemented, while Islamic business ethics specifies the ethical standards that governance should protect.

This theoretical positioning allows EDGF-HB to connect the structural dimension of governance with the normative requirements of Islamic commercial ethics. Rather than treating Islamic ethics merely as a philosophical justification, the framework translates these principles into governance requirements applicable to AI-enabled marketing.

Causal Logic of AI-Enabled Marketing and

Digital Deception

AI-enabled marketing includes personalization, algorithmic recommendation, behavioral targeting, generative AI content, and automated customer engagement (Huang & Rust, 2021). These technologies can improve marketing efficiency and customer engagement, but they also increase the capacity of firms and platforms to influence consumer decision-making through highly personalized and increasingly opaque mechanisms.

Digital deception represents a key governance risk within this environment. Dark commercial patterns may include fake scarcity, false urgency, hidden costs, misleading default settings, disguised advertising, and subscription traps (OECD, 2022; Mathur et al., 2019). Such practices can reduce consumer autonomy and undermine informed decision-making. The literature reviewed in this study similarly identifies digital deception as an emerging ethical challenge associated with AI-enabled marketing and platform-based commerce.

The framework therefore proposes that AI-enabled marketing should not be assumed to directly produce unethical outcomes. Instead, greater technological capability increases the potential exposure to digital deception risks, which subsequently creates a stronger need for governance mechanisms capable of identifying, preventing, and correcting unethical practices.

Proposition 1 (P1):

Greater adoption of AI-enabled marketing increases exposure to digital deception risks in halal business.

Proposition 2 (P2):

Higher digital deception risks increase the need for Ethical Digital Governance mechanisms.

This causal sequence represents an important refinement of the original framework because it establishes a theoretical mechanism between technological adoption, ethical risk, and governance response rather than simply placing these elements side by side.

Ethical Digital Governance and Expected Outcomes

Islamic ethical principles provide the normative direction for the governance response. *Ṣidq* requires truthful marketing communication and accurate information; *amānah* requires responsible management of consumer data and AI systems; *‘adl* requires fair treatment and non-manipulative decision-making; and the prohibition of *tadlīs* requires organizations to prevent deceptive digital practices. These principles can therefore be translated into concrete governance mechanisms.

EDGF-HB conceptualizes Ethical Digital Governance through six mechanisms: algorithmic transparency, explainability, organizational accountability, consumer protection, responsible AI management, and continuous ethical auditing. This operational orientation is consistent with contemporary responsible-AI governance research, which emphasizes the translation of ethical principles into structural, procedural, and relational governance practices (Papagiannidis et al., 2025). It also complements organizational AI governance approaches such as the NIST AI Risk Management Framework and ISO/IEC 42001, which emphasize systematic identification, management, and monitoring of AI-related risks.

Accordingly, Islamic ethical principles are expected to strengthen the institutionalization of ethical governance mechanisms.

Proposition 3 (P3):

Stronger institutionalization of Islamic ethical principles strengthens Ethical Digital Governance in halal businesses.

Effective Ethical Digital Governance is subsequently expected to produce positive governance outcomes by reducing perceived manipulation, improving transparency, strengthening organizational accountability, and demonstrating consistency between technological innovation and Islamic ethical values. These mechanisms are expected to enhance consumer trust, organizational legitimacy, and sustainable halal digital

business.

Proposition 4 (P4):

Stronger Ethical Digital Governance positively contributes to consumer trust, organizational legitimacy, and sustainable digital business outcomes.

The resulting causal logic can be summarized as:

AI-enabled marketing → digital deception risk → Ethical Digital Governance → governance outcomes, with Islamic business ethics functioning as the normative layer that guides the governance response.

Comparative Synthesis and Novelty of EDGF-HB

Existing governance approaches address different dimensions of the problem. Conventional halal governance primarily protects product integrity, certification, and supply-chain compliance, whereas responsible-AI governance focuses on transparency, accountability, fairness, human oversight, and AI risk management. Digital platform governance emphasizes consumer autonomy and protection from manipulative digital practices (Gunawan et al., 2021). Islamic business ethics provides strong normative principles concerning truthfulness, trust, justice, and deception, but these principles have been less frequently translated into formal AI governance mechanisms.

The comparison demonstrates that the existing approaches are complementary but fragmented. Conventional halal governance addresses religious and product compliance; responsible-AI governance addresses technological and organizational risks; digital governance addresses consumer protection; and Islamic business ethics establishes normative requirements for commercial conduct. However, none of these perspectives, individually, adequately explains how these elements can be integrated to govern AI-mediated marketing practices within halal businesses.

EDGF-HB addresses this unresolved

theoretical problem by positioning Islamic ethical principles as the normative foundation, digital deception as the principal governance risk, and Ethical Digital Governance as the organizational mechanism connecting AI-enabled marketing with governance outcomes. Its novelty therefore lies not in replacing existing governance approaches but in integrating their complementary functions within a halal digital-business context.

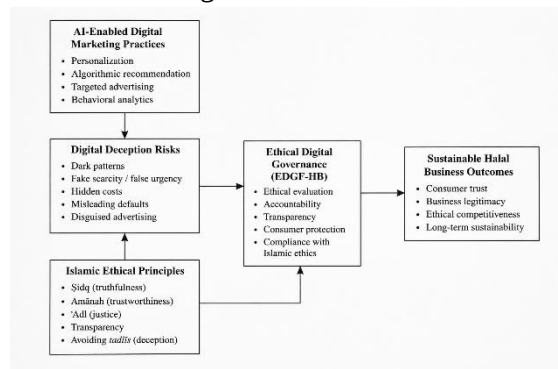


Figure 2. Proposed Ethical Digital Governance Framework for Halal Business (EDGF-HB)

The implementation of this framework is expected to strengthen consumer trust, enhance business legitimacy, and support the sustainable development of halal businesses within the platform economy.

METHODOLOGY

Research Design and Literature Search

This study employs a conceptual research design using an integrative literature review to develop the Ethical Digital Governance Framework for Halal Business (EDGF-HB). Conceptual research is appropriate for integrating fragmented theoretical perspectives and developing new conceptual insights (Jaakkola, 2020). The research design and literature review process were guided by established principles of business research methodology, particularly critical literature analysis and transparent research procedures (Creswell & Creswell, 2023; Saunders et al., 2023). The integrative review approach enables synthesis across interdisciplinary research streams (Snyder, 2019).

The literature search was conducted using

Scopus and Web of Science Core Collection, supplemented by authoritative publications from the OECD, UNESCO, European Union, NIST, and ISO. The search focused primarily on publications from 2019–2026, while earlier seminal studies were retained when theoretically relevant. The search combined terms related to AI-enabled marketing, digital platforms, digital deception, halal business, Islamic ethics, and governance. The core search string was:

“artificial intelligence” OR “AI-enabled marketing” OR “algorithmic marketing”) AND (“digital marketing” OR “platform economy”) AND (“digital deception” OR “dark pattern*” OR manipulation) AND (halal OR “Islamic business” OR “Islamic marketing” OR Shariah OR governance).

Selection and Screening

Studies were included when they were peer-reviewed, relevant to AI-enabled marketing, digital governance, digital deception, halal business, or Islamic business ethics, and provided theoretical or empirical insights relevant to EDGF-HB. Studies were excluded when they were unrelated to these themes, focused solely on technical AI development, duplicated records, or lacked sufficient conceptual relevance.

The screening process consisted of title screening, abstract screening, and full-text assessment. The final synthesis drew on the relevant literature identified through the search process and was complemented by authoritative institutional and regulatory sources.

Data Synthesis and Framework Development

The selected literature was analyzed thematically across four dimensions: (1) AI-enabled marketing and digital risks, (2) responsible digital governance mechanisms, (3) halal governance, and (4) Islamic business ethics. The synthesis compared the focus, mechanisms, and limitations of these perspectives to identify theoretical complementarities and unresolved gaps.

The findings were subsequently integrated through a conceptual sequence of AI-enabled marketing → digital ethical risks → governance mechanisms → Islamic ethical requirements → EDGF-HB. This synthesis provided the theoretical basis for developing the proposed framework and propositions.

RESULTS AND DISCUSSION

AI-Enabled Marketing and Emerging Digital Ethical Risks

The synthesis of the reviewed literature indicates that the adoption of artificial intelligence (AI) in marketing has transformed digital commercial interactions from conventional information delivery into increasingly algorithm-mediated processes. Personalization, recommender systems, behavioral targeting, and generative advertising enable firms to predict consumer preferences and automate communication, thereby improving marketing efficiency and engagement (Huang & Rust, 2021). However, these capabilities also alter the conditions under which consumers make decisions, particularly when algorithms determine the information presented, the timing of persuasion, or the available choices.

A central finding is that AI-enabled marketing creates ethical risks when technological capabilities are used to exploit information asymmetry or influence consumer decisions without adequate transparency and accountability. The literature on digital deception identifies dark commercial patterns such as fake scarcity, false urgency, hidden costs, misleading defaults, disguised advertising, and subscription traps as mechanisms through which digital interfaces can constrain informed choice (Mathur et al., 2019; OECD, 2022). Evidence from international consumer-protection monitoring further indicates that such practices are sufficiently widespread to constitute a systemic governance concern rather than isolated instances of unethical marketing (FTC, 2024).

From a conceptual perspective, these findings suggest that the ethical problem lies not in AI adoption per se, but in the governance of how AI capabilities are deployed in

consumer-facing marketing. The relevant concern is therefore the alignment between technological capability and the principles governing its use. In the context of halal business, this distinction is particularly important because digital marketing practices must be evaluated not only according to their effectiveness but also according to their implications for truthful communication, fairness, trust, and consumer autonomy.

Accordingly, EDGF-HB positions AI-enabled marketing as the technological context and digital ethical risk as the initial governance challenge. The synthesis establishes the first conceptual relationship of the framework: AI-enabled marketing capabilities create potential ethical risks that require appropriate governance mechanisms to ensure transparency, accountability, fairness, and consumer protection. This finding provides the analytical basis for examining whether existing halal governance and responsible digital governance approaches are sufficient to address these risks, which is discussed in the following section.

Governance Gaps Across Existing Approaches

The literature synthesis reveals that existing governance approaches address different dimensions of digital business ethics but remain conceptually fragmented. Responsible AI frameworks primarily emphasize transparency, accountability, risk management, human oversight, and trustworthy AI. These mechanisms are valuable for controlling technological risks, but they generally do not incorporate the specific ethical requirements of halal business (Koswara & Herlina, 2025). Conversely, conventional halal governance emphasizes product integrity, certification, traceability, and supply-chain assurance, providing strong mechanisms for establishing halal compliance but offering limited guidance on algorithmic decision-making and digital marketing practices.

Islamic business ethics provides an additional normative perspective by emphasizing truthfulness, trustworthiness, justice, and the avoidance of deception. However, when treated primarily as a set of

ethical principles, it does not by itself specify the organizational procedures, technological controls, or monitoring mechanisms required to govern AI-enabled marketing. The comparison therefore indicates that the three approaches are complementary but insufficiently integrated: responsible AI addresses technological governance, halal governance addresses religious and product compliance, while Islamic business ethics provides normative legitimacy.

Table 1 summarizes these differences and identifies the distinctive position of EDGF-HB.

Table 1. Comparison of Existing Governance Approaches and EDGF-HB

Aspect	Responsible AI Governance	Halal Governance & Islamic Ethics	EDGF-HB
Primary focus	Trustworthy and accountable AI	Halal compliance and ethical business conduct	Ethical governance of AI-enabled halal marketing
Main concern	AI risks, transparency, fairness, accountability	Halal integrity, truthfulness, justice, and avoidance of deception	Digital deception, consumer autonomy, transparency, and Islamic ethical compliance
Governance scope	AI systems, algorithms, and data	Products, processes, supply chains, and business conduct	AI systems, digital marketing, consumer interaction, and organizational governance
Key mechanisms	Risk management, transparency, human oversight	Certification, assurance, ethical principles	Algorithmic transparency, accountability, consumer protection, responsible AI, ethical auditing
Main limitation	Limited integration of Islamic	Limited governance of AI-	Requires empirical validation

	ethical requirements	enabled digital marketing	
Contribution	Provides technological governance principles	Provides halal and Islamic normative foundations	Integrates AI governance with halal and Islamic ethical governance

The critical comparison indicates a governance boundary problem. Existing halal governance primarily protects the integrity of the product and its supply chain, whereas responsible digital governance increasingly addresses the integrity of digital interactions, including algorithmic transparency, consumer autonomy, and AI accountability. As a result, neither approach alone adequately explains how Islamic ethical principles can be translated into governance mechanisms for AI-mediated marketing.

EDGF-HB addresses this boundary by integrating rather than replacing these existing approaches. Its novelty lies in connecting technological risk management with Islamic ethical criteria and organizational governance mechanisms within a single framework for halal digital business. In this configuration, Islamic business ethics functions as the normative foundation, while Governance Theory provides the overarching logic for coordination, accountability, monitoring, and implementation. This integration establishes the conceptual basis for translating Islamic ethical principles into concrete governance criteria, which is developed in the next section.

The comparison demonstrates that the novelty of EDGF-HB does not lie in replacing existing governance approaches, but in integrating their complementary strengths into a unified governance architecture for AI-enabled halal marketing.

From Islamic Ethical Principles to Governance Criteria

The literature synthesis indicates that Islamic business ethics provides a substantive normative foundation for governing digital commercial practices, particularly through the principles of *ṣidq* (truthfulness), *amānah* (trustworthiness), *ʿadl* (justice), and the

prohibition of *tadlīs* (deception). These principles are highly relevant to AI-enabled marketing because algorithmic personalization, automated content generation, and behavioral targeting can affect the transparency and fairness of consumer decision-making (Beekun & Badawi, 2005; Arham, 2010).

However, the conceptual contribution of this study is to move these principles from normative values toward governance criteria. In EDGF-HB, *ṣidq* requires truthful and transparent digital communication, including accurate representation of AI-generated marketing content. *Amānah* is translated into responsible management of consumer data and AI systems. *‘Adl* requires fairness in algorithmic recommendations, targeting, and other automated decision-making processes. Meanwhile, avoidance of *tadlīs* requires organizations to identify and prevent deceptive interfaces, artificial urgency, misleading information, and manipulative digital persuasion.

Table 2. Operationalization of Islamic Ethical Principles in EDGF-HB

Islamic Principle	Governance Criterion	Digital Application
Ṣidq (truthfulness)	Transparency & truthful communication	Accurate claims, disclosure of AI-generated content, transparent information
Amānah (trustworthiness)	Responsible AI & data stewardship	Responsible data use, privacy protection, accountable AI management
‘Adl (justice)	Algorithmic fairness	Fair targeting, non-discriminatory recommendations, equitable treatment
Avoidance of <i>tadlīs</i> (deception)	Anti-deception & consumer protection	No fake scarcity, hidden costs, misleading interfaces, or manipulative persuasion

The synthesis therefore suggests that Islamic ethics can function as an operational governance layer rather than merely a moral reference point. This distinction strengthens the theoretical position of EDGF-HB: Governance Theory provides the structural logic for coordination, accountability, monitoring, and control, while Islamic business ethics specifies the ethical criteria against which digital marketing practices are evaluated. Islamic ethics thus complements rather than replaces the dominant governance perspective.

This operationalization also creates a pathway for future empirical research. The governance criteria can subsequently be developed into measurable indicators of transparency, responsible AI management, algorithmic fairness, and digital anti-deception practices. In this way, the framework provides a bridge between Islamic ethical theory and observable organizational governance practices.

The EDGF-HB Framework: Conceptual Relationships and Governance Mechanisms

The preceding synthesis identifies three complementary findings: AI-enabled marketing creates new digital ethical risks; existing governance approaches address these risks only partially; and Islamic ethical principles can be translated into operational governance criteria (Malik & Hanapi, 2026). Building on these findings, this study proposes the Ethical Digital Governance Framework for Halal Business (EDGF-HB) as an integrated governance architecture for AI-enabled halal marketing.

The framework is grounded in Governance Theory, which views governance as a mechanism for coordinating actors, establishing accountability, implementing controls, and monitoring organizational practices. Islamic business ethics complements this perspective by providing the normative criteria that define what constitutes ethically legitimate digital marketing. Accordingly, Islamic ethics does not replace governance structures; rather, it provides the ethical standards through which those structures are designed and evaluated.

The conceptual logic of EDGF-HB follows a sequential relationship. AI-enabled marketing

represents the technological context in which personalized recommendations, behavioral targeting, generative AI, and automated communication are deployed. These capabilities may generate digital ethical risks, particularly when information asymmetry, algorithmic persuasion, or deceptive interface practices compromise consumer autonomy. The presence of such risks creates the need for ethical governance mechanisms capable of controlling how AI technologies are designed and used.

The next layer consists of the Islamic ethical criteria identified before. *Ṣidq* establishes requirements for truthful and transparent communication; *amānah* emphasizes responsible management of data and AI systems; *ʿadl* requires fairness in algorithmic decision-making; and avoidance of *tadlīs* establishes a boundary against deceptive and manipulative digital practices. These criteria provide the ethical direction for the governance mechanisms rather than functioning merely as abstract principles (Qizwini & Purnama, 2025).

The framework therefore positions Ethical Digital Governance as the central organizational capability connecting technological innovation with ethical accountability. Its principal mechanisms include algorithmic transparency, explainability, organizational accountability, consumer protection, responsible AI management, and continuous ethical auditing (Ramteke et al., 2024). These mechanisms translate Islamic ethical criteria into organizational practices that can be monitored and subsequently evaluated through empirical research. The existing manuscript already identifies these mechanisms as core components of the proposed framework.

The expected outcomes of this governance architecture are greater consumer trust, stronger organizational legitimacy, and more sustainable halal digital business practices. The underlying logic is that transparent, fair, accountable, and non-deceptive digital interactions can reduce perceived manipulation while strengthening the legitimacy of AI adoption (UNESCO, 2021) especially related within halal business. Thus,

EDGF-HB extends conventional halal governance beyond product and supply-chain assurance toward the governance of digital marketing processes and consumer interactions.

Figure 3. Ethical Digital Governance Framework for Halal Business (EDGF-HB)

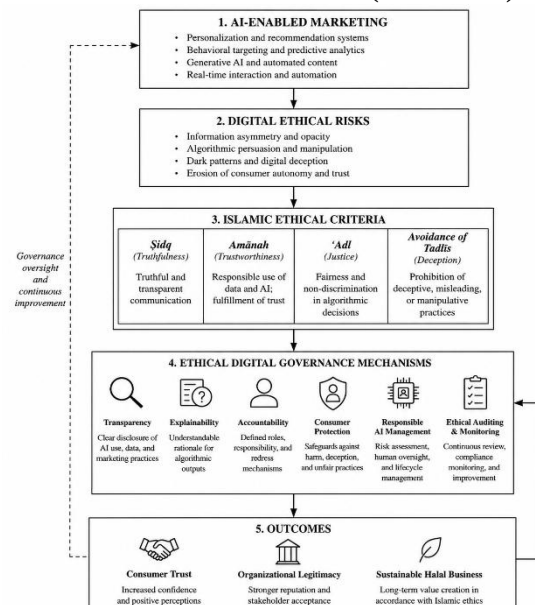


Figure 3 summarizes the conceptual architecture of EDGF-HB. The framework does not assume that AI adoption is inherently unethical; rather, it proposes that the ethical consequences of AI-enabled marketing depend on the governance mechanisms used to manage associated digital risks. The integration of Governance Theory with Islamic ethical criteria therefore provides the framework with both a structural governance logic and a context-specific normative foundation.

Propositions and Implications for Future Empirical Research

The conceptual synthesis provides a basis for several propositions concerning the relationships embedded in EDGF-HB. First, the increasing use of AI-enabled marketing creates greater exposure to algorithmic persuasion, information asymmetry, and digital deception, thereby increasing the need for formal ethical governance mechanisms.

Proposition 1 (P1): *AI-enabled marketing practices are positively associated with the need for ethical digital governance mechanisms in halal businesses.*

Second, the operationalization developed in previous section indicates that Islamic ethical principles provide specific criteria for evaluating AI-enabled marketing practices. Šidq, amānah, ‘adl, and avoidance of tadlīs provide complementary requirements for transparency, responsible AI management, fairness, and protection against deception.

Proposition 2 (P2): *The integration of Islamic ethical criteria strengthens the ethical governance of AI-enabled marketing practices in halal businesses.*

Third, EDGF-HB proposes that governance mechanisms such as transparency, explainability, accountability, consumer protection, responsible AI management, and continuous ethical auditing can reduce the ethical risks associated with AI-mediated marketing.

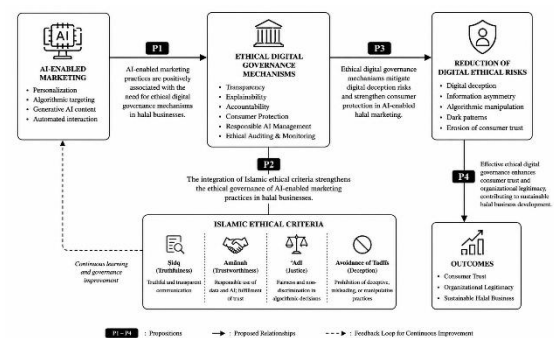
Proposition 3 (P3): *Ethical digital governance mechanisms mitigate digital deception risks and strengthen consumer protection in AI-enabled halal marketing.*

Finally, the framework suggests that effective ethical governance can generate organizational and market-level outcomes. Transparent and accountable digital practices can strengthen consumer confidence, organizational legitimacy, and the sustainability of halal businesses.

Proposition 4 (P4): *Effective ethical digital governance enhances consumer trust and organizational legitimacy, contributing to sustainable halal business development.*

Figure 4 summarizes the four propositions and illustrates the conceptual relationships among AI-enabled marketing, Islamic ethical criteria, ethical digital governance mechanisms, digital ethical risks, and the expected organizational and consumer outcomes.

Figure 4. Proposed Conceptual Relationships and Propositions of EDGF-HB



These propositions provide a basis for future empirical validation. The governance criteria identified in EDGF-HB can be operationalized into measurable indicators covering transparency, responsible AI management, algorithmic fairness, anti-deception practices, accountability, consumer protection, and ethical auditing. Future studies may examine these relationships through survey-based approaches such as structural equation modeling or through qualitative case studies of halal businesses, digital platforms, and regulatory institutions. This empirical validation is necessary to determine the explanatory power, applicability, and boundary conditions of EDGF-HB across different halal business and digital platform contexts.

CONCLUSION

This study proposes the Ethical Digital Governance Framework for Halal Business (EDGF-HB) to address an unresolved problem in halal governance: how AI-enabled marketing practices can be governed beyond conventional product, certification, and supply-chain compliance. Its conceptual novelty lies not simply in combining Islamic ethics with digital governance, but in reconfiguring established Islamic ethical principles into an organizational governance architecture for digital marketing. Governance Theory provides the structural basis for accountability, coordination, monitoring, and control, while Islamic business ethics provides the normative criteria for evaluating digital practices. EDGF-HB therefore extends halal governance toward the governance of AI-mediated consumer interactions.

The framework also provides differentiated implementation pathways. Regulators can develop guidance on AI transparency, digital deception, and consumer

autonomy; halal certification and assurance bodies can incorporate selected digital marketing practices into assurance and audit procedures; AI developers can embed transparency, explainability, fairness, human oversight, and anti-deception controls; and halal businesses can implement AI risk assessment, responsible-use policies, disclosure mechanisms, and periodic ethical audits. However, EDGF-HB is intended to complement rather than replace existing halal certification, AI regulation, and organizational governance (European Union, 2022). Its applicability is primarily relevant to halal businesses using AI-enabled or algorithmically mediated marketing, and may vary according to industry sector, organizational capacity, platform characteristics, and regulatory context.

This study is limited by its conceptual and literature-based design, as the proposed relationships have not yet been empirically validated and the synthesis does not incorporate direct evidence from businesses, consumers, regulators, certification bodies, or AI developers. Future research should test variables such as AI-enabled marketing intensity, digital ethical risk, algorithmic transparency, responsible AI management, perceived fairness, ethical auditing, consumer trust, and organizational legitimacy using SEM-PLS, comparative case studies, or mixed-method designs. Cross-sector and cross-country research would further clarify the boundary conditions and generalizability of EDGF-HB.

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