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Exploring the Unintended Consequences of AI in Halal Tourism with the SOUL framework

Abstract

The integration of artificial intelligence (AI) applications in halal tourism continues to transform the global Islamic economy and receive growing attention in industry and academia. While emerging research has focused on the benefits of AI in halal tourism, less attention has been given to how AI may interact with halal markets and lead to negative experiences. Understanding potential negative consequences is crucial for managing service experiences and mitigating any harm that may result from interactions between AI and halal tourism markets. Synthesizing the literature on artificial intelligence, hospitality and services marketing, and Islamic marketing, this conceptual study explores the unintended consequences of AI in halal tourism. To advance the analysis in our research, we introduce a novel SOUL framework consisting of the factors Shariah compliance, One-of-a-kind experience, Ummah well-being, and Laws and governance that span the micro-, meso-, and macro-levels of the business. We integrate the SOUL framework with the widely-used customer journey map tool to produce the SOUL-Customer Journey Map Matrix that holistically scans and illustrates unintended consequences of AI in halal tourism during the pre-, during-, and post-trip stages. In addition to contributing to the literature on the complex interplay between faith and AI in the context of halal tourism markets and the negative outcomes associated with AI use in hospitality, we provide practical guidance for halal tourism managers and policymakers through a manager's checklist to help mitigate potential unintended consequences associated with AI in halal tourism.

Keywords

artificial intelligence, halal tourism, Muslim-friendly travel, customer behavior, customer journey, unintended consequences

1. Introduction

Halal tourism continues to be one of the fastest-growing economies in the global Muslim market, with an estimated compound annual growth rate (CAGR) of 12.1% from 2023 to US$384.1 billion by 2028 (DinarStandard, 2025). “Halal tourism” refers to tourism for Muslims that is aligned with Islamic principles and which is facilitated by “Muslim-friendly” destinations and services (Battour & Ismail, 2016). Among the primary forces driving the growth of halal tourism are artificial intelligence (AI)-driven systems and tools that can now interact with the Muslim traveler throughout their travel experience (CrescentRating & Mastercard, 2025). In the competitive tourism sector where negative customer experiences can prove costly, given that hospitality errors are mostly attributed to human staff (Statista, 2025), service managers have increasingly explored AI to overcome human error and retain customer satisfaction and loyalty (Wirtz et al., 2018). This has produced new service expectations with AI, including robotic concierge services that can address complex tourism-specific issues such as communicating in diverse languages to different tourists accurately (Liu et al., 2024).

Given the importance of reducing service failures in hospitality and tourism, the research field has continued to monitor this phenomenon closely (Akarsu et al., 2023) and illuminated our understanding of the use of AI to manage travelers’ negative experiences and behaviors (Majeed et al., 2024; Meng et al., 2025). However, the use of AI to better manage customer experiences and reduce service fail points with human agents has opened its own Pandora’s box of service issues (Heirati et al., 2025). This includes new risks to the tourism industry, such as misalignment with tourists’ expectations amidst the new service environment (Zvaigzne et al., 2025) and travel misinformation from Generative AI (GenAI) such as ChatGPT (Kim et al., 2023).

Accordingly, while research on AI in Muslim-friendly services continues to grow (Noor, 2024), with emerging insights to better understand the risks associated with the use of AI in sectors such as Islamic education (Bouzenita & Wood, 2018), less focus has been given to the negative repercussions of AI in halal tourism. While Olya and Al-ansi (2018) empirically investigated the specific risks that correspond to the Muslim traveler’s satisfaction and loyalty levels, their study was absent from the impact of AI. In a recent development, Battour et al. (2023) advanced the customer journey map tool and provided caution on the use of AI in halal tourism. However, the objective of their study was not to provide any further comprehensive assessment of these possible negative consequences.

Based on these gaps, through a synthesis of the AI, hospitality and services marketing, and Islamic marketing literature, our exploratory study aims to address the following research question: What are the unintended consequences of AI in halal tourism? We conceptualize a SOUL framework consisting of the factors Shariah compliance, One-of-a-kind experience, Ummah well-being, and Laws and governance that span the micro-, meso-, and macro-levels of the business. While adjacent models such as the RIDA framework (Responsible, Immersive, Digital, Assured) emphasize strategic pillars for designing Muslim-friendly tourism (Noor & Bahardeen, 2025), SOUL differs by offering a layered analytical lens that highlights how Shariah compliance (S), one-of-a-kind experience (O), ummah well-being (U), and laws and governance (L) interact across system levels. We integrate this new framework with the widely used customer journey map tool to produce the SOUL-Customer Journey Map Matrix that highlights to scholars and service managers the unintended consequences of AI in halal tourism during the pre-, during-, and post-trip stages. Our study answers the call for more research on the societal impact of AI in tourism and hospitality (Della Corte et al., 2025). Our chapter

concludes with further directions for industry stakeholders and researchers in the halal tourism field.

2. Background on tourism models, halal frameworks, and customer journey maps

The tourism field continues to benefit from a rich tradition of multidisciplinary models and frameworks, with studies encouraging further exploration and conceptualization to better explain the complex phenomenon of hospitality amidst emerging developments (McKercher, 2025). One such development is the increased use of AI applications in hospitality which has transformed seminal service models (Noor & Sim, 2024) and introduced new resource management perspectives with AI (Tan et al., 2024). In a recent discussion on theory development in tourism, McCabe (2024) proposed adopting the micro-, meso- and macro-levels of analysis that consider tourists' consumption experience, technology effects, role of culture and communities, as well as policy and planning.

The Islamic marketing literature has also long advocated for theory development, with guidelines focusing on building upon concepts unique to the Islamic tradition to help Muslims live their lives (Koku & Jusoh, 2014) while also finding common solutions from other marketing fields (Bassiouny, 2016). In the context of halal tourism, while studies with models involving technology continue to be scant (Noor, 2024), the Islamic marketing domain contains rich literature that provides useful patterns for model conceptualization at all business levels. At the micro-level, Alserhan (2016) first introduced a framework on the motivations of the Muslim consumer to consume Muslim-friendly products and services that is anchored by the Maqasid Al Shariah or goals of the Islamic tradition. His model illuminates the multi-dimensional needs of the Muslim consumer, including the performance of good deeds and the achievement of rewards in the afterlife as the ultimate post-purchase benefit. On the organizational front, in discussing the challenges of Islamic branding, Wilson and Liu (2011) diagrammatically positioned the halal paradigm as a central focus with the meso-level of the Islamic community given its own layer of importance. At the more macro-level, Wilson (2014) introduced a granular framework to Shariah compliance and governance which consisted of the more common ethnocentric marketing to the pinnacle Shariah-compliant marketer. Overall, many of these models place the consumer as a key focus with the need to better understand and engage with consumers in Muslim-friendly markets.

One of the most widely used models in the industry to manage customer experiences which continues to receive research attention is the customer journey map (Lemon & Verhoef, 2016). The customer journey map has been acknowledged and used across many sub-fields in marketing including services marketing in the form of service blueprints (Bitner et al., 2008), and can also be contextualized in specific markets including those that are Muslim-friendly (Noor, 2022). With the advent of AI, researchers continue to explore how AI tools can affect the customer journey in tourism during the pre-encounter, service encounter, and post-encounter stages (Liu et al., 2024), with recent research exploring the possibility of harnessing AI applications to turn the traditionally linear journey into a feedback circular loop (Mele et al., 2025). In halal tourism, the customer journey map has also been used to communicate the benefits associated with the use of AI such as ChatGPT (Battour et al., 2024).

Research scholarship has begun to focus on the unintended consequences of AI in service and has called for more studies that explore how context can affect such negative outcomes (Heirati et al., 2025). Indeed, managing unintended consequences in service experiences has been a key topic in the literature, with seminal studies focusing on the

consumer's perceived justice in service management (Blodgett et al., 1993; Blodgett et al., 1997) and system failures due to user resistance in the technology acceptance field (Venkatesh & Bala, 2008). While Battour et al. (2023) touch on several possible setbacks that AI can bring about, their focus was on the broader benefits of AI for enhancing Muslim-friendly services rather than critically exploring negative implications. This leaves room for further work that identifies AI's unintended consequences across different levels of analysis. Inspired by the studies above, we adapt the micro- (experience), meso- (community), and macro-level (governance) perspectives discussed in both tourism and Islamic marketing literature to propose the SOUL framework. This framework extends prior conceptualizations by embedding Shariah compliance as the central driver and applying it to the three stages of the customer journey in the halal tourism context.

3. The SOUL framework

The SOUL framework captures the nested dimensions of halal tourism across micro-, meso-, and macro-levels (see Figure 1) (Noor & Bahardeen, 2025; McCabe, 2024). The acronym SOUL represents Shariah compliance (S), One-of-a-kind experience (O), Ummah well-being (U), and Laws and governance (L). By framing halal tourism through this lens, it can be understood as a form of sustainable tourism that not only ensures compliance with Islamic principles but also promotes meaningful experiences, strengthens communities, and builds institutional trust. Whereas the RIDA framework offers a strategic blueprint for developing Muslim-friendly tourism, the SOUL framework provides a structure for diagnosing how tourism practices unfold across different levels of the system. More specifically, the SOUL framework shows how halal tourism is anchored in Islamic values at its core, enriched by unique and spiritually fulfilling individual experiences, embedded within community welfare, and safeguarded by institutional and regulatory frameworks.

To illustrate, imagine a Muslim family traveling to Lombok, Indonesia. Before departure, they look for accommodations that guarantee halal-certified meals and easy access to prayer facilities. Upon arrival, they enjoy unique cultural performances rooted in Sasak Muslim traditions, while also joining community-based tours guided by residents. Their spending directly supports small Muslim-owned businesses, from halal eateries to local craft cooperatives, thereby strengthening community livelihoods. At the same time, regional authorities play an active role in certifying Muslim-friendly services and ensuring reliable information systems are available for travelers. This vignette shows how Shariah compliance, one-of-a-kind experiences, ummah well-being, and laws intersect in practice, embodying the essence of the SOUL framework. Building on this illustrative example, the next section unpacks each dimension of the SOUL framework in detail.

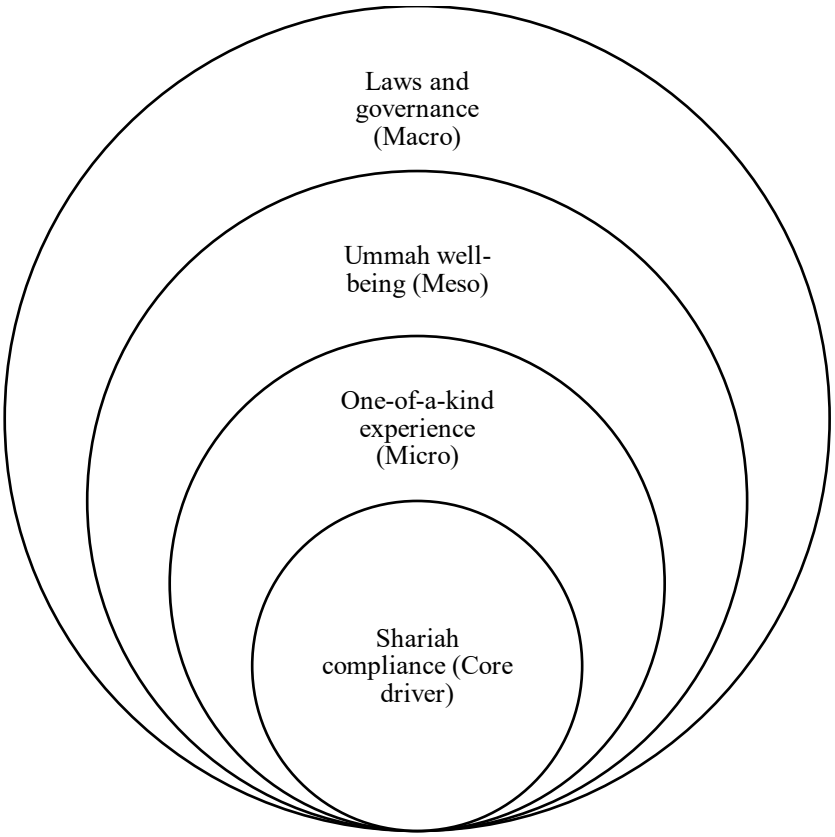


Figure 1. The SOUL framework
Source: Authors' own work

3.1 Shariah compliance (S) as the core driver

At the heart of the SOUL framework, Shariah compliance refers to the adherence of tourism products, services, and activities to Islamic rules, particularly regarding food, accommodation, worship facilities, and recreational practices. It functions as the core driver of halal tourism, ensuring that all tourism activities and services align with Islamic principles (Battour & Ismail, 2016). Operationally, this is evidenced by valid halal certification, availability of prayer facilities, segregation where required, and services aligned with Islamic principles. Halal tourism is defined here as travel that provides Muslim-friendly services and infrastructure consistent with Sharia requirements, ensuring accessibility to halal food, prayer facilities, and Shariah-compliant accommodations (Adel et al., 2020; Domingues & Almeida, 2023; Han et al., 2020; Hanafiah et al., 2021). This is not only practiced in OIC but also in non-OIC countries (Aji et al., 2020). By catering to tourism with these services and infrastructures, the tourism experience can create a comfortable atmosphere in which Muslim travelers can enjoy their trips while upholding their religious obligations (Dabphet, 2021). Empirical studies further confirm that destinations and hotels that comply with Shariah principles, such as providing halal certification or offering segregated recreational facilities, significantly enhance tourism intention (Aji et al., 2020; Hoang & Nguyen, 2025) and eventually enhance Muslim visitors' satisfaction, trust, and loyalty (Gautam et al., 2024). For this reason, Shariah compliance forms the cornerstone of the halal tourism experience. It distinguishes halal tourism from conventional tourism by embedding Islamic values into every aspect of the traveler's journey.

3.2 One-of-a-kind experience (O) as micro-layer

Surrounding Shariah compliance, the one-of-a-kind experience refers to unique, culturally authentic, and spiritually meaningful encounters that shape Muslim tourists' immediate satisfaction. Hence, this micro layer is at risk when such experiences compromise authenticity or Islamic values. The one-of-a-kind experience focuses on creating unique and spiritually enriching encounters that directly influence tourist satisfaction (Ratnasari et al., 2020; Suhartanto et al., 2021). Such experiences go beyond the provision of basic facilities by offering novelty, cultural authenticity, emotional engagement, and spiritual meaning (Moshin et al., 2020; Ratnasari et al., 2020; Sthapit, Björk, & Piramanayagam, 2023; Suhartanto et al., 2021). In this sense, halal tourism is not only about meeting Shariah requirements but also about delivering experiences that connect with travelers' faith, emotions, and personal identity (Ratnasari et al., 2020; Sthapit, Björk, & Piramanayagam, 2023). This connection allows tourists to uphold Islamic values while engaging in authentic cultural immersion, which in turn creates memorable travel experiences (Sthapit et al., 2024; Sthapit, Björk, Piramanayagam, et al., 2023). When spiritual meaning and cultural authenticity are integrated, halal tourism provides moments that leave lasting impressions on travelers (Moshin et al., 2020; Sthapit, Björk, & Piramanayagam, 2023). These one-of-a-kind experiences also strengthen attachment to destinations and enhance both satisfaction and loyalty among Muslim tourists (Rahmawati et al., 2022; Sthapit et al., 2024; Sthapit, Björk, Piramanayagam, et al., 2023). As a result, the micro layer of halal tourism highlights how meaningful experience can move the industry beyond mere compliance toward deeper fulfilment and long-term value (Sthapit et al., 2024).

3.3 Ummah well-being (U) as meso-layer

The third layer of the SOUL framework is ummah well-being, which refers to the collective social and economic benefits of halal tourism for Muslim communities. Operating at the meso-level, this layer highlights how halal tourism generates benefits that extend beyond individual travelers to the wider Muslim community by strengthening local economies and sustaining small businesses (Moshin et al., 2020; Yusuf et al., 2021). Halal tourism contributes to community well-being by creating environments where Islamic values are respected and celebrated. Destinations that highlight Islamic heritage sites or promote community-based initiatives enable residents to share their traditions and faith practices with visitors. This exchange fosters cultural pride, social solidarity, and a stronger sense of identity among community members (Stephenson, 2014). From an economic perspective, halal tourism sustains local businesses by creating demand for Muslim-friendly products and services such as halal food, accommodation, transportation, and cultural activities (Moshin et al., 2020; Yusuf et al., 2021). This demand supports small and medium-sized enterprises, creates employment opportunities, and improves household incomes. For instance, in Petra, Jordan, formerly semi-nomadic tribes were able to benefit from tourism by working as guides and selling souvenirs to visitors (Bille, 2012). Similar cases show how halal tourism helps communities secure livelihoods while keeping local businesses competitive in global tourism markets (Alahmadi, 2021). In this way, ummah well-being represents the communal dimension of halal tourism, ensuring that it not only meets the needs of travelers but also uplifts local communities.

3.4 Laws and governance (L) as macro-layer

Finally, laws and governance refer to the regulatory frameworks, certification systems, and institutional arrangements that ensure halal tourism is credible, consistent, and trusted. This macro layer encompasses certification systems, regulatory oversight, and institutional trust, which are collaboratively established among related stakeholders in the halal tourism industry. Governance can be understood as the steering, regulation, and coordination of activities carried out by a wide range of actors, including public authorities, private companies, associations, NGOs, and community organizations (Vanneste & Ryckaert, 2012). In the tourism sector, governance highlights the importance of collaboration and participation among diverse stakeholders such as small and medium-sized enterprises (SMEs), local entrepreneurs, cultural organizations, public authorities, and tourism boards (Ichsan & Zaenuri, 2024; Vanneste & Ryckaert, 2012). This collaborative approach is essential for developing shared goals and building long-term trust. Moreover, tourism governance is often linked to competitiveness, as destinations may use it to strengthen their position in global markets (Bono & Clav, 2020; Haryanto & Anwar, 2024). In halal tourism, governance is realized through certification systems and regulations that are communicated and socialized among stakeholders to ensure shared understanding and consistent practice (Katuk et al., 2020; Suharko et al., 2018). When implemented effectively, good governance in halal tourism not only guarantees compliance with Islamic principles but also builds traveler trust and satisfaction (Haryanto & Anwar, 2024). In this way, laws and governance help strengthen the credibility and sustainability of halal tourism by embedding it within a reliable institutional framework.

4. Unintended consequences of AI in the halal tourism journey

AI has transformed tourism by offering automated guidance, personalized recommendations, and instant information access. In halal tourism, these tools promise greater convenience for Muslim travelers, who seek assurance of Shariah-compliant experiences (Battour et al., 2023; Hoang & Nguyen, 2025). However, these technological advancements also introduce unintended consequences that may compromise the values underpinning Muslim-friendly travel. Using the SOUL framework introduced in the previous section, we explore unintended consequences across three stages of the customer journey: pre-trip, during-trip, and post-trip (see Table 1).

Table 1. SOUL-Customer Journey Map Matrix illustrating unintended consequences of AI in halal tourism and their mitigation

The SOUL Framework		Customer Journey Stage		
Core Driver	**Risk Level**	**Pre-Trip Stage** *Tourists gather information about halal tourism destinations, compare options, and make choices aligning with their preferences and needs*	**During-Trip Stage** *Tourists engage in halal on-site experiences, interact with service providers, and navigate the destination through AI-mediated systems and services*	**Post-Trip Stage** *Tourists reflect on their halal tourism experiences, share feedback and reviews, and influence future travelers through digital platforms and word-of-mouth.*
Shariah compliance ensures all services align with Islamic principles.	**O**ne-of-a-kind experience (Micro)	**Unintended Consequence**: AI bias misguides tourists to non-halal options.	**Unintended Consequence**: Reduced human interaction weakens Islamic hospitality.	**Unintended Consequence**: Fake reviews mislead future travelers.
		Mitigation: AI-curated recommendations verified against halal certification.	**Mitigation**: Integrate AI with guided human touchpoints.	**Mitigation**: Narrative-based recommendations from verified Muslim travelers.
	Ummah well-being (Meso)	**Unintended Consequence**: AI platforms favor large companies, limiting SME participation.	**Unintended Consequence**: Automation displaces Muslim workers, disrupting livelihoods.	**Unintended Consequence**: AI-driven demand prediction fuels overtourism, straining local facilities.
		Mitigation: Promote visibility of local halal SMEs in AI recommendations.	**Mitigation**: Blend AI with human service roles.	**Mitigation**: Monitor AI recommendations for sustainable visitor distribution.
	Laws and governance (Macro)	**Unintended Consequence**: Lack of mechanisms to flag untruthful outputs undermines assurance of halal standards.	**Unintended Consequence**: Privacy and data security issues with sensitive religious data.	**Unintended Consequence**: Weak oversight of AI-generated reviews undermines halal certification credibility.
		Mitigation: Implement AI warning/flag systems for unverifiable outputs.	**Mitigation**: Enforce strong AI data governance and consent protocols.	**Mitigation**: Strengthen regulatory monitoring of digital content.

Note: Unintended consequences or risks in the micro (O), meso (U), and macro (L) layers occur when Shariah compliance (S) is compromised.

Source: Authors' Own Work

4.1 Pre-trip stage

The pre-trip stage is important in halal tourism because it shapes travelers' expectations, motivations, and eventual decisions. At this point, Muslim tourists often rely on AI chatbots to compare destinations, accommodations, and Muslim-friendly facilities (Kim et al., 2024). These technologies provide convenience but also introduce unintended consequences that affect individual experiences (micro-level), ummah well-being (meso-level), and governance structures (macro-level).

At the micro-level, the risks primarily relate to how Muslim travelers experience the search process. Bias in AI decision-making can misguide travelers toward options that are not fully Shariah-compliant, weakening the authenticity of their choices (Gössling et al., 2025; Stergiou & Nella, 2024). Similarly, the absence of robust filtering mechanisms and poor information about halal-certified products and services may cause travelers to unknowingly

select non-halal alternatives (Kim et al., 2024). The problem is compounded by the poor reliability of factual outputs (Carvalho & Ivanov, 2025) and the inability of current AI models to respond effectively to clarifying questions (OpenAI, 2022). In practice, this means a tourist looking for halal food outlets or prayer-friendly accommodations might be directed to places that do not meet Islamic requirements. Furthermore, the high fluency of AI-generated text can create a false impression of accuracy, leaving Muslim tourists vulnerable to misleading information (Carvalho & Ivanov, 2025).

At the meso-level, the effects extend to the wider Muslim community. AI-driven personalization often favors dominant platforms, which monopolize visibility in travel searches and diminish the presence of smaller halal operators (Gössling et al., 2025). For instance, a large global booking site may appear repeatedly in AI-driven recommendations, overshadowing local halal homestays or eateries. Such concentration of power undermines the inclusive economic benefits that halal tourism is intended to create, reducing opportunities for Muslim communities and SMEs to participate and thrive (Gössling et al., 2025).

At the macro-level, gaps in governance and regulation raise further concerns. The lack of mechanisms to flag untruthful responses increases reliance on questionable advice (Carvalho & Ivanov, 2025). Moreover, AI hallucinations, defined as seemingly realistic but factually incorrect outputs, may misinform travelers by suggesting non-existent halal-certified hotels or mislabeling facilities as Muslim-friendly (Carvalho & Ivanov, 2025; Christensen et al., 2025; Kim et al., 2024; Sun et al., 2026). Additionally, resistance to adopting new technologies and the difficulty of integrating AI systems with human staff highlight institutional weaknesses (Bulchand-gidumal et al., 2024). For halal tourism, these governance challenges mean that the certification and assurance of Shariah-compliant services are not always adequately safeguarded (Kim et al., 2024).

Propositions:

- P1a (Micro): When AI search and filtering mechanisms are weak or outputs are unreliable, Muslim travelers are more likely to be directed toward non-halal options, creating false confidence in their choices.
- P1b (Meso): AI-driven concentration of market visibility on large platforms reduces opportunities for halal SMEs and diminishes inclusive economic benefits for the Muslim community.
- P1c (Macro): Lack of mechanisms to flag AI hallucinations and other AI-generated misinformation, coupled with institutional resistance and integration challenges, undermines trust in halal certification systems and assurance of Shariah compliance.

4.2 During-trip stage

The risks evident in the pre-trip stage often continue into the travel experience itself. As Muslim tourists begin their journeys and engage in on-site activities, the consequences of AI integration become more tangible.

At the micro-level, AI can disrupt the authenticity of halal tourism experiences. Reduced human interaction caused by reliance on chatbots, service robots, or automated check-ins diminishes opportunities for meaningful host–guest encounters, which are an essential part of Islamic hospitality (Gössling et al., 2025; López-naranjo et al., 2025; Xu et al., 2024). For example, a pilgrim expecting a warm, community-oriented welcome might instead interact only with AI kiosks. Algorithmic price manipulation is another risk where dynamic pricing

systems may exploit travelers during high-demand religious trips, such as Ramadan or Hajj-related tourism, possibly contradicting the Islamic principle of fairness (Gössling et al., 2025). Moreover, increased surveillance through AI-enabled monitoring systems may undermine tourists' sense of dignity and privacy, which are deeply valued in Islam (Gössling et al., 2025).

At the meso-level, AI-driven automation directly affects host communities. The substitution of human labor with machines in hotels, restaurants, and attractions risks widespread job losses in sectors where local Muslim communities are heavily employed (Gössling et al., 2025). This can erode the social and economic benefits that halal tourism is supposed to generate. Sigala et al. (2024) further emphasize that such displacement reduces opportunities for community empowerment, as technology replaces workers who have traditionally provided halal-compliant services. The overreliance on efficiency-driven automation thus challenges the broader well-being of the ummah, weakening the inclusive and community-based ethos of halal tourism.

At the macro-level, governance issues are equally concerning. The absence of clear regulatory frameworks for AI-mediated services raises doubts about whether these technologies consistently uphold Shariah standards (Bulchand-gidumal et al., 2024). Privacy and data security risks are especially critical when AI systems collect sensitive religious data, such as prayer schedules or halal dietary preferences (Gössling et al., 2025; Kim et al., 2024; López-naranjo et al., 2025). Additionally, AI-enabled platforms increase exposure to cyber threats such as phishing or fake booking confirmations (Carvalho & Ivanov, 2025; Sigala et al., 2024). Without strong governance, these risks undermine trust in the integrity of halal tourism services.

Propositions:

- P2a (Micro): Increased reliance on AI-mediated services, such as chatbots, service robots, and automated check-ins, reduces the authenticity of Islamic hospitality and may compromise fairness in pricing and privacy during travel.
- P2b (Meso): Greater automation in service delivery displaces Muslim workers, weakening the socio-economic contribution of halal tourism and limiting community empowerment opportunities.
- P2c (Macro): Weak governance of AI-enabled systems, including insufficient regulatory oversight and inadequate data security, increases risks to sensitive religious information and undermines assurance of Shariah compliance during travel.

4.3 Post-trip stage

The post-trip stage builds on the earlier phases, as tourists reflect on their journeys and share their experiences online. In halal tourism, this stage is particularly important because peer reviews, testimonies, and digital storytelling play a significant role in guiding future halal travelers.

At the micro-level, AI introduces risks to the authenticity of these shared experiences. Generative AI tools can create manipulated or fake reviews, making it difficult for future travellers to identify trustworthy reflections of halal tourism services (Sun et al., 2026). The appropriation of tourists' personal data from reviews, photos, or feedback without consent also violates Islamic principles of honesty and fairness (Gössling et al., 2025; Kim et al., 2024; López-naranjo et al., 2025). When Muslim travelers suspect that reviews of halal hotels or

restaurants have been manipulated by AI, their trust in online communities diminishes, weakening the credibility of post-trip reflections.

At the meso-level, unintended consequences are felt at the community level. AI-driven demand prediction tools that analyze post-trip reviews and feedback may intensify overtourism by repeatedly directing travelers to already popular Muslim-friendly destinations (Gössling et al., 2025). While such concentration may generate short-term income, it risks overburdening mosques, halal dining facilities, and community infrastructures, thereby straining the very communities that halal tourism seeks to support.

At the macro-level, the lack of oversight in managing AI-generated content and reviews poses long-term governance challenges. Weak regulatory mechanisms allow misinformation and manipulative narratives to spread unchecked, undermining trust in halal certification systems (Gössling et al., 2025). If travelers cannot trust that AI-mediated reviews align with actual Shariah-compliant standards, the legitimacy of halal institutions themselves is threatened. This underscores the urgent need for stronger governance frameworks to regulate AI-generated outputs and protect the ethical and religious standards that underpin halal tourism.

Propositions:

- P3a (Micro): The presence of AI-generated or manipulated reviews, combined with unauthorized appropriation of personal data, reduces tourists' trust in the authenticity and reliability of post-trip Muslim-friendly service evaluations.
- P3b (Meso): AI-driven demand prediction and recommendation tools, using post-trip data, may accelerate overtourism, overburdening mosques, halal eateries, and community infrastructures, and straining local Muslim communities.
- P3c (Macro): Weak regulatory oversight of AI-generated content and reviews undermines the credibility of halal certification systems and the legitimacy of Shariah-compliant institutions.

5. Manager's checklist for practical mitigation

To enhance practical utility, managers can refer to the manager's checklist in Table 2 which consolidates stage-specific actions to mitigate risks identified in Table 1.

Table 2. Manager's checklist

Stage	Manager's Checklist
Pre-Trip	☐ Verify AI-curated recommendations against halal certification
	☐ Promote visibility of local halal SMEs in AI recommendations
	☐ Implement AI warning/flag systems for unverifiable outputs
During-Trip	☐ Integrate AI with guided human touchpoints
	☐ Blend AI with human service roles
	☐ Enforce strong AI data governance and consent protocols
Post-Trip	☐ Use narrative-based recommendations from verified Muslim travelers
	☐ Monitor AI recommendations for sustainable visitor distribution
	☐ Strengthen regulatory monitoring of digital content

6. Conclusion

The increased availability and use of AI in halal tourism necessitate not only a good understanding of the benefits of AI application to entice Muslim travelers, but a careful

consideration of the unintended consequences that such applications can cause. To this, our chapter sheds light on the potential negative outcomes that can occur when AI interacts with the halal tourism market. We comprehensively scan the potential pitfalls at the micro-, meso-, and macro-business levels across the pre-, during-, and post-trip stages of the Muslim traveler journey to identify service fail points that could prove costly to the consumer, business, and other stakeholders in the halal tourism ecosystem.

Our study contributes to the literature on the negative side effects of AI in service as well as the Islamic marketing literature by introducing a novel SOUL framework. Our SOUL framework identifies specific points of analysis that are particularly important to the individual consumer, the organization, and the wider business environment and society. When viewed through the lens and guidance of the Shariah and Islamic tradition, these include a focus on the spiritual experience, the care for the ummah, and the importance of halal governance. In addition, similar to other tools such as the service blueprint which extend the usefulness and dimensionality of the customer journey map, we show how the customer journey map can be further leveraged with the addition of the SOUL framework. Our SOUL framework offers additional diagnostic power to the traditional service blueprint by embedding clearer lenses through which risk analysis with AI can be conducted across the customer touchpoints.

For practitioners, this chapter highlights the importance of a careful integration of AI into the already complex and interwoven halal tourism industry and the experiences that the Muslim traveler may face. Muslim travelers can use our insights to raise their own self-awareness of potential harms that AI may bring and seek the necessary clarifications with their tour agencies and destinations at every stage of the trip experience. This enables them to be active participants in consumer protection. Tourism managers and developers can better work together to design AI applications with parameters that can minimize the occurrence of such negative consequences. Given the importance of the authenticity of AI agents in service (Liu et al., 2024), service providers need to ensure that information provided to travelers is authentic and honors the Islamic ethical and business value of Amanah (i.e., honesty) (Alserhan, 2016). In addition, sentiment analysis can be used to sense the degree of negativity experienced by consumers at each phase of the customer journey. Finally, policymakers can use our insights to design more holistic measures and benchmarks that integrate various sectors. For instance, adherence to data protection laws such as the Personal Data Protection Act (PDPA) in Singapore (PDPC, 2025) should be factored into Muslim-friendly accreditation schemes such as CrescentRating's Crescent Rated programs (CrescentRating, 2025) where religious-preference data is collected by the service provider. In instances where algorithmic pricing results in unfairness for consumers, a Muhtasib or market supervisor may step in and implement fairer prices to protect consumers (Alserhan, 2016). Such measures are welcomed as they take into account the well-being of the traveler, business, and society as a whole.

While the discussion of unintended consequences may cause feelings of despair, we echo the words of the great theologian and poet Rumi in that our chapter aims to be a caravan of hope. To this, while the SOUL framework was conceptualized to scan for potential SOUL-less traveler experiences with AI, future research can explore the compatibility of the SOUL framework in identifying the benefits of AI and in conjunction with other industries and tools beyond the customer journey map. In the area of customer relationship management, of further interest is to ascertain which points of the customer journey may require more optimal levels of SOUL, if such optimal patterns exist (De Freitas, 2023), and whether they are consistent across different physical and digital touchpoints. Future researchers are also encouraged to

empirically test the propositions outlined in this chapter, examining the relationships between AI integration and unintended consequences across the pre-, during-, and post-trip stages of the halal tourism journey. Such studies can provide quantitative validation of the SOUL framework and inform evidence-based recommendations for both practitioners and policymakers. Overall, the age of AI is already upon us, and a dose of care allows us to look to the future with greater optimism and wisdom.

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