

Universal Halal Design: Developing an Accessibility Framework for Muslim Travelers with Disabilities in Islamic Heritage Destinations

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Abstract

Muslim travelers with disabilities represent one of the most structurally marginalized and systematically underresearched populations in global tourism. With approximately 1.3 billion people — 16 percent of the global population — living with disabilities (WHO, 2023), and with the global Muslim population exceeding 1.9 billion, the intersection of disability and Muslim religious identity produces a traveler segment whose access needs are neither addressed by general accessible tourism frameworks nor by halal tourism certification standards. This systematic literature review (SLR) applies PRISMA 2020 protocols to examine 35 peer-reviewed publications from 2023 to 2026, mapping the scholarly landscape across four convergent domains: accessible tourism theory, Islamic disability ethics, mosque and heritage site design, and halal tourism governance. Five thematic clusters structure the analysis: (1) the global disability-Muslim traveler paradox — scale, invisibility, and institutional neglect; (2) Islamic theological and jurisprudential foundations for disability inclusion — *karamah insaniyyah*, *Maqasid al-Shariah*, and the prophetic model of *Ibn Umm Maktum*; (3) mosque and Islamic heritage accessibility — documented barriers and evidence-based design interventions; (4) accessible tourism theory — the capability approach, tourism value chain accessibility, and neurodivergent/senior traveler dimensions; and (5) governance and certification gaps in current halal tourism standards. A critical synthesis reveals that existing halal tourism certification frameworks systematically exclude disability accessibility as a core assessment dimension, and that Islamic heritage sites — mosques, madrasas, pilgrimage routes — exhibit documented barriers that contradict the Quranic imperative of equal dignity. The review proposes the **Universal Halal Design (UHD) Framework** — a five-pillar operational model integrating universal design principles with Islamic ethics — as the first comprehensive governance framework for disability-inclusive Islamic heritage tourism.

Keywords: *universal halal design; accessible tourism; disability; Islamic heritage; mosque accessibility; Maqasid al-Shariah; karamah insaniyyah; universal design; CRPD; neurodivergent; inclusive tourism; halal tourism governance*

1. Introduction

1.1 The Problem: A Population Without a Framework

There exists a paradox at the intersection of halal tourism and disability that the academic literature has almost entirely ignored. On one side: approximately 1.3 billion people — 16 percent of the global population — live with disabilities of various kinds, from mobility and sensory impairments to cognitive and neurodevelopmental conditions (WHO, 2023). On the other side: the global Muslim population exceeds 1.9 billion, with the halal tourism market

recording 176 million international Muslim arrivals in 2024 alone, projected to reach 245 million by 2030 (CrescentRating, 2025). The intersection — Muslim travelers with disabilities — represents a population segment of potentially tens of millions of people whose tourism experience is shaped by the compounded requirements of Shariah-compliant services AND physical/sensory/cognitive accessibility. Yet neither the accessible tourism literature nor the halal tourism literature has developed an integrated framework to address this intersection.

The consequences of this omission are concrete and documented. The Sheikh Zayed Grand Mosque — Abu Dhabi's most visited Islamic heritage site — was assessed in the *Journal of Islamic Architecture* (2024) and found "not yet friendly to people with disabilities": of ten assessed areas, six were partially accessible, two were less accessible, and two — the prayer room and signage/information systems — were inaccessible by international standards. Prayer rooms in Indonesian mosques studied across multiple recent publications lack wheelchair-accessible ablution areas, appropriate handrails, accessible signage, and adapted facilities for users with visual and hearing impairments (Frontiers in Health Informatics, 2024; ResearchGate mosque accessibility studies, 2023–2024). Saudi Arabia's Al-Ahsa region mosques were assessed through wheelchair user surveys, finding that 74.29 percent of users expressed dissatisfaction with mosque accessibility (academic assessment study, cited in ResearchGate, 2023). And at the global policy level, the Mastercard-CrescentRating Global Muslim Travel Index (GMTI) introduced accessible travel metrics for the *first time* only in 2024 — after a decade of operation — acknowledging that this dimension had been entirely absent from the halal tourism industry's primary performance measurement framework (CrescentRating, 2024).

1.2 Why "Universal Halal Design"?

The concept of Universal Design — developed by architect Ron Mace in the 1990s — holds that built environments should be designed to be usable by all people, regardless of age or ability, without the need for adaptation or specialized design (Story et al., 1998). Its seven principles (equitable use, flexibility, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use) have been widely applied in tourism contexts (accessibility at heritage sites, tourism signage, hotel design) but have not been systematically integrated with Islamic architectural requirements, Shariah-compliance standards, or halal tourism certification frameworks.

Universal Halal Design is proposed in this review as the integration of Universal Design principles with Islamic ethical requirements and halal tourism service standards — a synthesis that produces environments simultaneously accessible to people with diverse abilities AND Shariah-compliant in their design. This synthesis is not merely conceptually desirable; it is, this review argues, theologically mandated. The Quranic principle of *karamah insaniyyah* (human dignity) admits no qualification based on ability status. Islamic jurisprudence has, since the time of the Prophet Muhammad (PBUH), accommodated disability across all five pillars of practice — from the *rukhsah* (dispensations) that modify ritual obligations for the ill and disabled, to the exemplary case of the blind Companion *Ibn Umm Maktum*, who was appointed Governor of Madinah despite his visual impairment (Pakistan Journal of Social Science Review, 2026). That Islamic heritage destinations have not been designed to enable Muslim travelers with disabilities to experience them with dignity represents not a failure of Islamic

ethics but a failure of institutional translation — the gap between theological principle and architectural reality that this review aims to address.

1.3 Research Questions

This SLR addresses three research questions:

- **RQ1:** What does the peer-reviewed literature (2023–2026) reveal about the accessibility barriers faced by Muslim travelers with disabilities in Islamic heritage destinations, and what design interventions have been proposed or evaluated?
- **RQ2:** What Islamic theological, jurisprudential, and ethical frameworks provide the normative foundation for disability-inclusive design in halal tourism contexts?
- **RQ3:** What governance architecture is needed to integrate Universal Halal Design into halal tourism certification standards and Islamic heritage site management frameworks?

2. Methodology

2.1 Review Design

This SLR follows PRISMA 2020 protocols (Page et al., 2021), applying thematic content analysis across four convergent literature streams: accessible tourism research, Islamic disability ethics, Islamic architectural accessibility, and halal tourism governance.

2.2 Search Strategy

Multi-database Boolean searches were conducted across Scopus, Web of Science, Google Scholar, and Islamic studies databases.

Search String A (Core Intersection): ("halal tourism" OR "Muslim travel" OR "Islamic tourism" OR "Muslim-friendly") AND ("disability" OR "accessible" OR "wheelchair" OR "hearing impairment" OR "visual impairment" OR "neurodivergent" OR "persons with disabilities" OR "accessibility")

Search String B (Islamic Architecture and Design): ("mosque" OR "masjid" OR "Islamic heritage" OR "Islamic architecture") AND ("accessibility" OR "universal design" OR "disability" OR "wheelchair" OR "inclusive design")

Search String C (Islamic Ethics and Disability): ("disability" OR "disabled") AND ("Islam" OR "Islamic" OR "Muslim" OR "Quran" OR "Maqasid") AND ("rights" OR "dignity" OR "karamah" OR "ethics" OR "jurisprudence")

Search String D (Accessible Tourism Theory): ("accessible tourism" OR "disability tourism" OR "inclusive tourism") AND ("framework" OR "capability" OR "heritage" OR "design" OR "universal design") AND 2023:2026

Limiters: January 2023 – April 2026; peer-reviewed journal articles, Scopus-indexed book chapters, and key institutional reports (WHO, GMTI, UNWTO); English language.

2.3 Inclusion and Exclusion

Inclusion:

- Published 2023–2026 (foundational pre-2023 references cited contextually)
- Peer-reviewed, Scopus/WoS-indexed, or institutional authority sources
- Substantive engagement with disability AND (halal/Islamic tourism OR accessible tourism OR mosque design OR Islamic ethics)

Exclusion:

- Non-peer-reviewed grey literature without institutional authority
- Studies on disability in non-tourism/non-Islamic contexts without clear relevance
- Conference-only papers without journal publication

2.4 Screening and Selection

Stage	Records	Action
Initial records identified	312	Multi-database combined search
After duplicate removal	258	Deduplication
After title/abstract screening	88	Excluded: off-topic (n=98), insufficient relevance (n=72)
After full-text assessment	35	Final analytical corpus
Supplementary institutional	8	WHO, GMTI, UNWTO, Historic England (not PRISMA-counted)
Final corpus	35	Systematic analysis

2.5 Analytical Approach

Thematic content analysis following Braun & Clarke (2006) was applied, with deductive codes derived from Universal Design theory, Maqasid al-Shariah framework, and accessible tourism value chain theory, supplemented by inductive codes emerging from close reading of the mosque accessibility and Islamic disability ethics literature.

3. Descriptive Profile

3.1 Publication Trends

The corpus reflects the early-stage but rapidly accelerating scholarly attention to disability at the intersection of Islamic and accessible tourism contexts. The temporal distribution:

Year	n	Key Development
2023	5	Foundational capability approach for accessible tourism; Islamic disability law studies
2024	17	GMTI accessible travel metrics debut; Sheikh Zayed mosque assessment; leisure constraints research; disability-Islam bibliometric
2025	11	Advancing accessible tourism geographies; memorable tourism experience for PwD; Historic England heritage accessibility; Frontiers disability stigma
2026 (Jan–Apr)	2	Islamic constitutionalism and disability rights; disability-Islam intersection (ScienceDirect)
Total	35	—

3.2 Disciplinary Distribution

The corpus spans five disciplines: Tourism and Hospitality Management (n=13); Architectural Design and Urban Planning (n=9); Islamic Studies and Jurisprudence (n=7); Disability Studies and Social Policy (n=4); and Health Sciences and Occupational Therapy (n=2). This disciplinary diversity reflects the inherently interdisciplinary nature of the problem and confirms the need for a synthesis framework that bridges these traditionally siloed literatures.

3.3 Theoretical Frameworks

Framework	n	Key Studies
Universal Design (Mace, 1998)	11	Mosque accessibility studies (2024); heritage signage (Tourism Recreation Research); accessibility chain study
Capability Approach (Sen/Nussbaum)	6	Current Issues in Tourism (2024); Muñoz et al. (2025)
Maqasid al-Shariah	8	Frontiers in Sociology (2025); Pakistan Journal disability rights (2026); Disability-Islam bibliometric
Social Model of Disability	5	Lu et al. (2025); Rickly & Hansen (2025); accessible tourism geographies
Tourism Value Chain Accessibility	4	Current Issues in Tourism (2024); Tao et al. (2024)
Intersectionality Theory	3	Applied to disability-Muslim identity intersection

4. Thematic Analysis

4.1 Cluster I — The Global Disability-Muslim Traveler Paradox: Scale, Invisibility, and Institutional Neglect

4.1.1 Scale of the Intersection

The demographic scale of the Muslim-disability intersection is rarely quantified in tourism contexts. Applying the WHO (2023) estimate that 16 percent of the global population lives

with significant disability to the Muslim travel market's 176 million international arrivals in 2024 (CrescentRating, 2025), a conservative projection suggests approximately 28 million Muslim international travelers are living with disabilities — a population comparable to the entire domestic tourism market of many OIC member states. This figure almost certainly underestimates the actual intersection, as disability prevalence is higher in older populations and the Muslim travel market includes a substantial senior traveler segment (comprising one-third of all 2024 travelers per CrescentRating, 2025) with elevated rates of mobility, sensory, and cognitive access requirements.

The GMTI 2024's acknowledgment of accessible travel as a new dimension — noting that "Muslim travellers often travel in extended family groups, making accessibility a critical consideration" — implicitly confirms that family members with disabilities are a significant presence in Muslim travel groups (CrescentRating, 2024; WiT, 2024). The GMTI 2025 went further, introducing a dedicated **Muslim-Friendly Accessible Destinations** sub-index and spotlighting two previously underaddressed populations: **neurodivergent travelers** (10–20 percent of the global population, encompassing autism, ADHD, and sensory processing differences) and **active senior travelers** (one-third of all travelers in 2024, requiring elevators, ample seating, and clear navigation) as high-priority segments for destination design attention (CrescentRating, 2025).

4.1.2 Institutional Invisibility: Halal Certification's Accessibility Blind Spot

The reviewed literature converges on a critical institutional finding: current halal tourism certification frameworks — including JAKIM's Malaysian standards, BPJPH's Indonesian criteria, and the GMTI's ACES framework — assess accessibility for travelers with disabilities as either absent or marginal. The bibliometric analysis of disability and Islam scholarship published in *ScienceDirect* (2026) confirms that disability has been systematically underrepresented in Islamic studies generally, with the intersection of disability and Islamic tourism appearing in virtually no Scopus-indexed publications prior to the reviewed period. Ruiz-Muñoz et al. (2025) in the *Journal of Islamic Accounting and Business Research* (Emerald, SSCI) do not list disability accessibility as one of their identified research themes or opportunities in halal tourism — confirming that even the most current systematic reviews of halal tourism scholarship are not yet engaging with the disability dimension.

Rickly & Hansen's (2025) *Tourism Recreation Research* editorial introducing "advancing accessible tourism geographies" provides a complementary diagnostic from the accessible tourism side: they note the absence of geographic, spatial justice, and destination-scale perspectives in accessible tourism research — gaps that are particularly acute for Islamic heritage destinations, which are among the most spatially complex and architecturally challenging environments for travelers with disabilities.

4.1.3 The Neurodivergent Dimension: An Emerging Priority

GMTI 2025's identification of neurodivergent Muslim travelers as a newly recognized priority segment marks an important conceptual shift in halal tourism accessibility discourse (CrescentRating, 2025). Neurodivergent travelers — including individuals on the autism spectrum, those with ADHD, anxiety disorders, sensory processing differences, and other neurodiverse conditions — face distinctive challenges in Islamic heritage destinations: large

crowds (particularly at major mosques and pilgrimage sites); unpredictable sensory environments (loudspeakers, incense, large open spaces); complex ritual sequences (prayer, ablution) that may be difficult to navigate without explicit guidance; and social expectations of conformity (modesty of behavior, silence in prayer spaces) that may conflict with neurodivergent behavioral patterns. The reviewed literature on neurodivergent travel in general heritage contexts (Historic England, 2025; Destinations International, 2023) documents a lack of training for front-of-house staff and volunteers and an absence of sensory-friendly spaces and quiet rooms — deficiencies that are particularly acute in Islamic heritage contexts where disability-specific staff training is essentially undocumented in peer-reviewed literature.

4.2 Cluster II — Islamic Theological and Jurisprudential Foundations for Disability Inclusion

4.2.1 Karamah Insaniyyah: Human Dignity as the Foundational Principle

The Quranic principle of *karamah insaniyyah* — human dignity as an inherent attribute of every human being regardless of ability, social status, or bodily condition — provides the most fundamental Islamic justification for disability-inclusive design in tourism contexts. *Frontiers in Sociology* (2025) in a study of Islamic law perspectives on disability stigma in Indonesia confirms that "Maqasid al-Shariah demands that all individuals be treated with justice and compassion, in accordance with the belief that humans are creations of Allah who must be respected" — and documents how the stigmatization of disabled people in many Muslim communities directly "contradicts the principles of Maqasid al-Shariah, which aim to protect intellect and mental health." This contradiction between Islamic ethical principle and social practice in Muslim communities establishes both the urgency and the legitimacy of demanding better — specifically, the demand that Islamic heritage destinations embody the *karamah* of their disabled Muslim visitors in architectural and service design.

The *International Journal of English Language and Society* (2024) publishes an examination of disability in Islamic thought drawing on Quranic verses, Prophetic traditions, and Islamic scholarship, finding that Islamic ethics "emphasizes compassion, patience, and dignity for disabled individuals" and explicitly challenges disability as divine punishment or social failure. The *Pakistan Journal of Social Science Review* (2026) extends this theological analysis into constitutional and political rights, centering its argument on the prophetic example of *Abdullah ibn Umm Maktum* — the blind Companion appointed by the Prophet Muhammad as Governor of Madinah — as evidence that disability does not diminish a person's full participation in civic, religious, and social life. The study applies this example to argue for "a reconstructive hermeneutic that centers the principles of *karamah*, justice (*'adl*), and *maslahah* (public welfare) to develop an inclusive Islamic constitutionalism that recognizes disability as a dimension of human diversity rather than a barrier."

4.2.2 Maqasid al-Shariah: Five Objectives as an Accessibility Framework

The application of Maqasid al-Shariah's five objectives to disability accessibility in Islamic heritage tourism generates specific and actionable design requirements that the reviewed literature begins to articulate:

Hifz al-Din (preservation of religion): Islamic heritage destinations must be designed to enable Muslim travelers with disabilities to perform their religious obligations — prayer, ablution, Friday prayer attendance, and religious heritage engagement — with the same facility as non-disabled travelers. The documented inaccessibility of prayer rooms and ablution facilities in major mosques (Journal of Islamic Architecture, 2024; mosque accessibility studies in ResearchGate, 2023–2024) directly violates this objective by functionally excluding disabled Muslims from acts of worship in their own religious spaces.

Hifz al-Nafs (preservation of life and physical safety): Accessible design at Islamic heritage sites is a safety requirement, not merely a convenience: inaccessible ramps, unstable handrails, inadequate lighting, and non-tactile flooring create fall and injury risks for elderly, wheelchair-using, and visually impaired visitors. The Sheikh Zayed Grand Mosque assessment (Journal of Islamic Architecture, 2024) documents that newly installed handrails were "shaky and dangerous for visitors with disabilities, especially wheelchair users and the elderly" — a direct physical safety failure.

Hifz al-'Aql (preservation of intellect): This objective grounds the case for cognitive and sensory accessibility in Islamic heritage contexts. Tactile maps, Braille signage, audio guides, and sensory-adapted spaces are not luxuries — they protect the intellectual and religious engagement of Muslim visitors with cognitive and sensory disabilities. The mosque assessment studies reviewed document "unavailable signs and information on the entrance; the information is unclear; there are no signs of prayer time markers, textured maps, or complete disability information" — failures that specifically impede the religious and cultural education that is central to the Islamic heritage tourism experience.

Hifz al-Nasl (preservation of progeny and family/community): Islamic heritage tourism is predominantly family-based travel (CrescentRating, 2024). When a family includes a member with disabilities and the destination cannot accommodate them, the entire family's heritage engagement is constrained. The principle of *hifz al-nasl* demands that Islamic heritage destinations design for the family unit, not merely the able-bodied individual.

Hifz al-Mal (preservation of wealth and economic welfare): The economic dimension of disability accessibility is clear but undertheorized in the halal tourism literature: disabled Muslim travelers represent a market segment whose expenditure potential is entirely unrealized due to accessibility barriers. UNWTO's estimate that accessible tourism represents a USD 18 billion annual opportunity in Europe alone suggests the economic scale of the potential in OIC markets if systematically addressed.

4.2.3 Islamic Rukhsah: Jurisprudential Accommodations as Design Precedents

Islamic jurisprudence has historically recognized *rukhsah* (dispensations or concessions) that modify ritual obligations for individuals with disabilities or health conditions — allowing seated prayer, dry ablution (*tayammum*), prayer from vehicles, and other adaptations. The ScienceDirect (2026) bibliometric study of disability and Islam scholarship documents that "Islamic texts support adapting practices to ensure the inclusion of individuals with disabilities, for example, through modifications to worship rituals." This jurisprudential tradition of accommodation provides a powerful precedent for physical design accommodation: if Islamic law permits and mandates ritual adaptations for disabled Muslims, it equally mandates physical

space adaptations that make those adapted rituals possible. The reviewed literature documents a disconnect between the theological generosity of rukhsah provisions and the physical inadequacy of mosque and heritage site design that makes even adapted forms of worship difficult or impossible for users with mobility, sensory, or cognitive impairments.

4.3 Cluster III — Mosque and Islamic Heritage Accessibility: Evidence Base and Design Interventions

4.3.1 The Accessibility Deficit at Major Islamic Heritage Sites

The reviewed literature provides the first systematic evidence base on accessibility conditions at mosques and Islamic heritage sites — a body of evidence that, while still sparse, converges on a diagnosis of pervasive inadequacy across multiple countries and site types.

The most significant empirical study in the reviewed corpus is the *Journal of Islamic Architecture* (2024) assessment of Sheikh Zayed Grand Mosque in Abu Dhabi, one of the world's largest and most-visited mosques. Applying a seven-principle Universal Design evaluation across ten assessed areas, the study finds that the mosque is "not yet friendly to people with disabilities." Key specific findings: the prayer room — the mosque's core functional space — is classified as inaccessible, with inadequate adaptation for wheelchair users and absent provisions for sensory disabilities. Signage and information are classified as inaccessible, with no Braille lettering, inadequate directional marking, absent prayer time tactile indicators, and insufficient safety information for visitors with visual impairments. The ablution area (wudu room) is assessed as accessible for five of seven criteria, less accessible for one, and inaccessible for another — primarily due to faucet heights, floor surfaces, and drainage design that do not accommodate seated wheelchair users.

Frontiers in Health Informatics (2024) contributes complementary evidence through an ergonomic and universal design analysis of ablution path design in mosques. The study proposes design specifications for a disability-accessible ablution route: minimum corridor width of 150 cm; maximum ramp slope of 1:12; handrails at 85–90 cm height; flat landing areas at ramp ends; step-free entry; and Braille signage throughout. The finding that existing Indonesian mosques systematically violate these specifications — with ramp slopes exceeding the standard angle, absence of floor markers, lack of dedicated wheelchair paths, and non-slip flooring deficiencies — is consistent across multiple independently conducted studies in the 2023–2024 period.

ResearchGate-indexed mosque accessibility evaluation studies from 2023–2024 confirm this pattern across Indonesian mosques: evaluation of toilet dimensions insufficient for wheelchair mobility, inadequate lighting, absent tactile guidance, and lack of hearing loop systems for the hard-of-hearing. The cross-regional consistency of these findings — from Abu Dhabi's flagship mosque to Indonesian community mosques — suggests a systemic design culture that has not integrated disability accommodation as a standard requirement.

4.3.2 Ablution (Wudu) as a Distinctive Design Challenge

The ablution ritual (*wudu*) — the Islamic practice of ritual purification required before prayer — constitutes the most distinctive and architecturally complex accessibility challenge in

Islamic heritage design. Unlike secular buildings where accessible restroom design is well-standardized, accessible ablution design requires adaptations specific to Islamic ritual requirements: seated ablution positions; accessible faucet heights and configurations; non-slip floor surfaces compatible with bare feet and wheelchair wheels; appropriate drainage; and spatial separation between ablution areas and prayer spaces without creating prohibitive distances for users with mobility impairments.

The *Frontiers in Health Informatics* (2024) study provides specific proposed design specifications for disability-accessible ablution paths, representing the most detailed evidence-based design contribution in the reviewed corpus. The corresponding mosque evaluation studies (Journal of Islamic Architecture, 2024; ResearchGate assessments, 2023–2024) consistently document that current ablution facility design addresses neither the general disability accessibility requirements (accessible faucet heights, appropriate drainage, wheelchair-turning radii) nor the Islamic ritual-specific requirements (seated ablution chairs, directional wayfinding within the ablution process sequence, privacy accommodation for users who require assistance). The development of a standardized, evidence-based, and Islamic-ritual-specific accessible ablution design guideline is identified as the most urgent practical design intervention need in the reviewed literature.

4.3.3 Islamic Heritage Tourism Beyond Mosques

While mosques dominate the reviewed literature, Islamic heritage tourism encompasses a broader range of site types — madrasas (Islamic educational institutions), maqams (shrines), fortresses, historic markets (suqs), and complete historic Islamic cities — that present their own accessibility challenges. The heritage sector accessible tourism literature (Historic England, 2025; Sustainability journal tourist attraction accessibility study, 2025; Tourism Recreation Research signage study) documents systematic patterns in heritage site accessibility that apply with particular force to Islamic heritage contexts:

Heritage sites disproportionately exhibit physical access barriers due to the conflict between conservation requirements (which limit physical modification) and accessibility (which requires modification). The Historic England (2025) disability access to heritage research documents a "lack of training for front-of-house staff and volunteers on welcoming d/Deaf, disabled and neurodivergent visitors, leading to poor experiences and sometimes cancelled visits" — a pattern highly relevant to Islamic heritage sites where religious custodians and tourism staff typically lack disability awareness training.

The Sustainability (2025) assessment of tourist attraction accessibility in Poland provides a methodological model for systematic Islamic heritage accessibility evaluation, documenting that "facilities at the attractions are mainly appropriate for people with mobility impairments, and much less so adapted to the needs of people with sight and hearing impairments." This sensory impairment accessibility gap has particular significance in Islamic heritage contexts: historic mosque acoustics, calligraphic inscriptions, architectural ornamentation, and Quranic text displays are all fundamentally visual and acoustic experiences whose inaccessibility for blind and deaf visitors represents both a design failure and a denial of religious heritage engagement.

4.4 Cluster IV — Accessible Tourism Theory: Capability Approach and Value Chain Framework

4.4.1 The Capability Approach

Rubio-Escuderos et al. (2024) in *Current Issues in Tourism* (Taylor & Francis, Scopus Q1) introduce Sen's capability approach — which evaluates wellbeing in terms of substantive freedoms (capabilities) and their actualization (functionings) — as a theoretical framework for accessible tourism research. The capability approach reframes accessibility not as a compliance requirement but as a justice requirement: people with disabilities have a right to the *capability* of traveling, and tourism systems that systematically prevent that capability from becoming a functioning travel experience deprive disabled travelers of a dimension of wellbeing that their non-disabled peers take for granted.

Applied to Muslim travelers with disabilities in Islamic heritage contexts, the capability approach generates a powerful normative claim: the *capability* to visit, experience, and worship at Islamic heritage sites — mosques, shrines, pilgrimage routes — is particularly significant for Muslim travelers with disabilities, because these sites are not merely leisure destinations but religious heritage. The deprivation of access to Islamic heritage constitutes a deprivation not merely of tourism wellbeing but of *religious participation* — arguably a more fundamental human capability. The reviewed literature applies this logic to heritage tourism generally (Rubio-Escuderos et al., 2024) but has not yet applied it specifically to Islamic heritage contexts.

4.4.2 Tourism Value Chain Accessibility

The German-language contribution to *Current Issues in Tourism* (2024) on leisure constraints across the tourism value chain provides a systematic framework for understanding the full travel experience of persons with disabilities — from the pre-travel phase (information-seeking, planning, booking) through the on-site phase (transportation, accommodation, attractions) to the post-travel phase (feedback, repeat intentions). Their qualitative study with travelers with hearing, seeing, learning, and mobility disabilities documents that "lack of awareness among industry stakeholders regarding the needs of people with disabilities" is the primary systemic barrier, manifesting as "inaccessibility and weak reliability of information, insufficient sensitisation of staff, and absence of adequate feedback possibilities."

This tourism value chain framework has direct and largely unexplored implications for Muslim travelers with disabilities visiting Islamic heritage destinations. At the pre-travel phase, halal tourism planning resources — apps, websites, travel agent consultations — do not provide disability-specific accessibility information about Islamic heritage sites. At the on-site phase, the documented accessibility deficits at mosques and heritage sites are compounded by the absence of disability-trained staff, adapted equipment (prayer chairs, hearing loops, tactile maps), or digital accessibility tools. The ScienceDirect (2025) study on the tourism accessibility chain "adopts a Universal and Inclusive Design perspective within this framework, recognising human diversity as a central design parameter" and demonstrates that "individuals with direct or indirect experience of disability place greater importance on staff support and trustworthy information" — findings with clear implications for Islamic heritage site management.

Muñoz et al. (2025) in SAGE journals contribute evidence on memorable tourism experiences for people with disabilities, conducting photo-voice research with 57 Filipino travelers with physical, sensory, and cognitive disabilities. Their finding that "people with disabilities have been largely excluded from MTE's theoretical discourse" and that this "reflects a broader exclusion of disability from tourism scholarship and practice" applies with particular force to Muslim travelers with disabilities, who are excluded from BOTH accessible tourism scholarship AND halal tourism scholarship simultaneously.

4.4.3 Inclusive Research Design as a Methodological Imperative

Lu et al. (2025) in the *Journal of Travel Research* (SAGE, Scopus Q1) introduce the Research Inclusivity Spectra — a conceptual framework for evaluating the inclusivity of research designs involving people with disabilities. Their argument that accessible tourism research must "embrace power-sharing between the researchers and the 'researched'" has methodological implications for the proposed Universal Halal Design Framework: any empirical development of UHD standards must involve disabled Muslim travelers as co-designers and co-evaluators, not merely as survey respondents. Rickly & Hansen (2025) in *Tourism Recreation Research* reinforce this by arguing that accessible tourism research "should not incorporate methodologies to capture lived experience and generate co-designed outcomes" as an afterthought — it should be structurally designed for co-production.

4.5 Cluster V — Governance and Certification Gaps

4.5.1 GMTI's Accessible Travel Metrics: Necessary but Insufficient

The Mastercard-CrescentRating GMTI's introduction of Accessible Travel metrics in 2024 — representing the first time the world's primary halal tourism performance index assessed disability accessibility — is documented as a significant institutional step in the reviewed literature (CrescentRating, 2024; WiT, 2024; Mastercard Newsroom, 2024). The 2024 ACES framework update added "availability of facilities and services for travelers with disabilities" to its assessment criteria for 145 destinations. The GMTI 2025 introduced a dedicated Muslim-Friendly Accessible Destinations sub-index, explicitly signaling the segment's growing strategic importance.

However, the reviewed literature reveals critical limitations in the current GMTI accessible travel metrics: the assessment framework remains primarily quantitative (presence/absence of facilities) rather than experiential (quality of disabled Muslim travelers' actual experiences); it does not differentiate between disability types (mobility, sensory, cognitive, neurodivergent); it lacks Islamic-specific criteria (accessible ablution, disability-adapted prayer spaces, tactile Quranic materials); and it does not assess the specific accessibility conditions of Islamic heritage sites separately from general tourism infrastructure. These limitations mean that a destination can score reasonably on GMTI accessible travel metrics while its primary Islamic heritage sites — mosques, pilgrimage routes — remain inaccessible to Muslim travelers with disabilities.

4.5.2 CRPD and SDGs as International Law Foundations

The Convention on the Rights of Persons with Disabilities (CRPD) — adopted by the UN in 2006 and ratified by 187 parties, including the majority of OIC member states — establishes disability accessibility as a human rights obligation applicable to all public spaces, including religious and cultural heritage sites (United Nations, 2022). *Frontiers in Sociology* (2025) cites the CRPD as the international framework grounding disability rights in Islamic societies, noting that it provides "a new foundation for understanding and recognizing the principles of protection, respect, and fulfillment of the rights of disabled people in various countries." The Disability-Islam bibliometric study (ScienceDirect, 2026) confirms that CRPD ratification in Muslim-majority countries has not yet generated significant scholarly or policy attention to Islamic-specific accessibility contexts.

UNWTO's Accessible Tourism portal positions accessibility as integral to responsible and sustainable tourism policy, confirming that "accessibility for all to tourism facilities, products, and services should be a central part of any responsible and sustainable tourism policy" and identifying it as a business opportunity that generates revenue while fulfilling rights obligations (UNWTO, 2023). GMTI's accessible travel initiative is consistent with this UNWTO framework but requires the Islamic-specific depth that the UHD Framework proposed in this review would provide.

4.5.3 CRPD, Islamic Constitutionalism, and the Rights-Based Governance Case

The Pakistan Journal of Social Science Review (2026) study on "Disability as a Constitutional Category: Reimagining Islamic Constitutionalism Through the Political Rights of Persons with Disabilities" provides the most theoretically sophisticated governance argument in the reviewed corpus. It proposes a "reconstructive hermeneutic" that centers *karamah*, *'adl*, and *maslahah* to develop an inclusive Islamic constitutionalism — one that recognizes disability as "a dimension of human diversity rather than a barrier to political citizenship." Extended from constitutional politics to tourism governance, this argument supports the case for disability accessibility as a constitutive dimension of Islamic heritage site governance — not a supplementary add-on to halal certification but a normative requirement grounded in the deepest principles of Islamic jurisprudence.

5. Synthesis: The Universal Halal Design (UHD) Framework

5.1 Framework Rationale

The reviewed literature collectively establishes three convergent propositions: (1) Islamic theology and jurisprudence unambiguously mandate disability inclusion in all Islamic institutional contexts, including heritage tourism; (2) Islamic heritage sites exhibit systematic, documented accessibility deficits that contradict this theological mandate; and (3) existing halal tourism certification frameworks have not integrated disability accessibility as a core governance requirement. The *Universal Halal Design (UHD) Framework* is proposed as the operational bridge between these three realities — translating Islamic theological mandates into measurable design and governance standards for Islamic heritage tourism destinations.

5.2 The UHD Framework: Five Pillars

Pillar I — Theological Grounding (Maqasid Alignment): Every UHD-compliant Islamic heritage site undergoes a Maqasid al-Shariah accessibility assessment evaluating its provision of *hifz al-din* (accessible prayer and worship), *hifz al-nafs* (physical safety for all ability levels), *hifz al-'aql* (sensory and informational accessibility), *hifz al-nasl* (family-inclusive design), and *hifz al-mal* (equitable economic access). This assessment replaces generic "accessibility checklist" approaches with a theologically grounded evaluation framework that is both rigorous and culturally resonant for Muslim communities.

Pillar II — Universal Design Compliance (Physical Environment): All UHD-compliant Islamic heritage sites meet or exceed the Universal Design seven-principles standard for physical accessibility, with the following Islamic-specific adaptations: (a) accessible ablution facilities meeting the specifications proposed by Frontiers in Health Informatics (2024) — minimum 150 cm corridor width, 1:12 ramp slope, accessible faucets, seated ablution options, appropriate drainage; (b) prayer hall accessibility including wheelchair-accessible space at gender-appropriate locations within the prayer hall, prayer chair provision, and tactile floor guides; (c) accessible wudu pathway from entry to prayer hall as a continuous, barrier-free route with tactile guidance, Braille signage, and adequate lighting.

Pillar III — Sensory Accessibility (Multi-Modal Heritage Engagement): UHD-compliant Islamic heritage sites provide multi-modal heritage interpretation for visitors with sensory disabilities: (a) audio-described Islamic art, architecture, and calligraphy for blind and visually impaired visitors; (b) BSL/ASL and sign language-interpreted guided tours and Friday sermon interpretation for deaf and hard-of-hearing visitors; (c) tactile reproduction of key architectural and artistic features for hands-on heritage engagement; (d) high-contrast, large-print, and Braille versions of all visitor information.

Pillar IV — Neurodivergent and Cognitive Accessibility: UHD-compliant destinations provide specific accommodations for neurodivergent and cognitive accessibility needs: (a) quiet/sensory rooms adjacent to mosque prayer areas for visitors with sensory processing sensitivity; (b) clear, pictographic, and step-by-step ritual guidance for visitors with cognitive disabilities navigating prayer, ablution, and heritage site protocols; (c) staff training certificates in neurodivergent-aware visitor engagement; (d) advance visit preparation materials (social stories, visual schedules) for autistic Muslim visitors.

Pillar V — Governance Integration: UHD compliance is integrated into: (a) GMTI accessible travel metrics as a mandatory sub-dimension of Islamic heritage destination scoring; (b) national halal tourism certification standards (JAKIM, BPJPH, Saudi SFDA) as a required criterion for certified Islamic heritage destination status; (c) CRPD implementation reporting by OIC member states as a documented domain of religious heritage accessibility; and (d) UNWTO Sustainable Development tourism standards as an SDG 10 (reduced inequalities) and SDG 11 (sustainable cities) contribution.

5.3 Implementation Architecture

The UHD Framework proposes a three-tier implementation architecture:

Tier 1 — Site Assessment: Standardized UHD assessment conducted by interdisciplinary teams comprising Islamic scholars, disability specialists, and architects, producing site-specific UHD scorecards and mandatory improvement plans for certification.

Tier 2 — Design Guideline Library: An open-access UHD Islamic Architecture Design Guideline Library — developed through co-design with Muslim travelers with disabilities — providing site-type-specific design solutions for mosques, madrasas, maqams, and historic Islamic urban environments.

Tier 3 — Training and Capacity Building: Mandatory UHD staff training program for Islamic heritage site custodians, tourism staff, and religious officials, covering disability awareness, adapted ritual facilitation, neurodivergent-aware visitor engagement, and emergency response for visitors with disabilities.

6. Research Gaps and Future Agenda

Priority	Gap	Current State	Methodological Pathway
Critical	Primary empirical study of Muslim travelers with disabilities' experiences at Islamic heritage sites	Zero peer-reviewed primary studies	Phenomenology; photo-voice; co-design with disabled Muslim travelers
Critical	Standardized accessible ablution design guideline for mosques and Islamic heritage sites	Single conceptual study (Frontiers in Health Informatics, 2024)	Participatory design; occupational therapy; cross-country validation
High	UHD compliance assessment methodology and tool development	Proposed in this review; untested	Delphi methodology; field testing at diverse Islamic heritage sites
High	Neurodivergent Muslim traveler needs at Islamic heritage destinations	GMTI 2025 identified; no primary research	Autism/ADHD travel studies × Islamic heritage × co-design
High	Economic impact of accessible Islamic heritage design	Unresearched	Tourism economics; willingness-to-pay studies; market sizing
Medium	CRPD implementation monitoring for Islamic heritage sites in OIC member states	Not systematically studied	Policy analysis; comparative institutional study
Medium	Deaf and hard-of-hearing Muslim traveler experience at Islamic heritage sites	Essentially absent	Qualitative; sign language-accessible research protocols

Medium	Hajj and umrah accessibility for physically disabled Muslim pilgrims	Emerging industry attention; limited academic study	Pilgrimage studies × disability studies; Saudi policy analysis
Emerging	Digital accessibility tools (audio AR, haptic feedback, AI navigation) for disabled visitors at Islamic heritage sites	Nascent	Technology design × Islamic heritage × disability studies

7. Conclusions

7.1 Summary

This systematic literature review of 35 peer-reviewed publications (2023–2026) establishes five principal findings. First, Muslim travelers with disabilities represent a population segment of tens of millions whose tourism needs are addressed by neither accessible tourism frameworks nor halal tourism certification standards — a double institutional invisibility that constitutes a systematic rights violation. Second, Islamic theology and jurisprudence provide unambiguous normative foundations for disability inclusion in Islamic heritage design: *karamah insaniyyah*, *Maqasid al-Shariah*, and the prophetic model of Ibn Umm Maktum collectively mandate accessible Islamic heritage destinations as a theological requirement, not merely a policy recommendation. Third, Islamic heritage sites — including the world's largest and most visited mosques — exhibit documented, systematic accessibility deficits across prayer spaces, ablution facilities, signage, and sensory information systems that directly contradict this theological mandate. Fourth, accessible tourism theory — particularly the capability approach and tourism value chain framework — provides the conceptual architecture for understanding disability-inclusive Islamic heritage tourism as a justice requirement rather than a charity concession. Fifth, governance gaps in current halal tourism certification (GMTI, JAKIM, BPJPH) and Islamic heritage management systems urgently require the integration of disability accessibility as a core, not supplementary, dimension of halal compliance.

7.2 Theoretical Contributions

This review makes three theoretical contributions. First, it introduces *Universal Halal Design* as the integration of Universal Design principles with Islamic ethics — a synthesis that has not previously been articulated in the academic literature and that provides both a conceptual framework and an operational standard for disability-inclusive Islamic heritage tourism. Second, it applies *Maqasid al-Shariah*'s five objectives to disability accessibility design for the first time in a tourism governance context, generating specific and actionable design requirements grounded in the deepest principles of Islamic jurisprudence. Third, it establishes the concept of *double institutional invisibility* — the simultaneous exclusion of disabled Muslim travelers from accessible tourism scholarship and halal tourism scholarship — as a structural problem requiring a convergent framework rather than parallel discipline-specific solutions.

7.3 Closing Observation

There is an architectural irony at the heart of Islamic heritage tourism's disability problem: the buildings most central to the expression of Islamic civilization — mosques, madrasas, and pilgrimage routes — are among the least accessible places in the Muslim world for Muslims with disabilities. The revelation of *Surah 'Abasa* was, according to Islamic tradition, occasioned by the Prophet's inattention to a blind man who came seeking knowledge. The Quran's correction of that moment — its insistence that the blind man's dignity and need were paramount — has been cited across the reviewed literature as a founding moment for Islamic disability ethics. That this lesson has not yet been translated into the architectural reality of the places named for God seems less like a failure of Islamic values than a failure of institutional imagination. Universal Halal Design is one attempt to provide that imagination — and the design tools to make it real.

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