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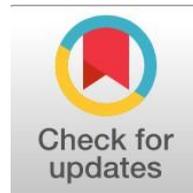
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The Design of a Sustainable Urban Tourism Development Model for Karbala is based on Social, Cultural, and Religious Aspects of Karbala City: Perancangan Model Pengembangan Pariwisata Perkotaan yang Berkelanjutan untuk Karbala didasarkan pada Aspek Sosial, Budaya, dan Keagamaan Kota Karbala

Muhsin Mahdi Rebat Al-kanany, muhsin.m@uokerbala.edu.iq (*)

University of Kerbala, Faculty of Tourism Science, Karbala City, Iraq

(*) Corresponding author

Abstract

General Background: Urban tourism faces increasing challenges related to climate change, overtourism, and sustainability pressures. **Specific Background:** The integration of cultural heritage, religious tourism, and community participation is increasingly recognized as a key pathway toward sustainable urban tourism development. **Knowledge Gap:** Despite extensive research, limited integration exists between urban tourism sustainability, cultural dimensions, and community-based approaches within a unified analytical framework. **Aims:** This study examines how community participation and cultural integration contribute to sustainable urban tourism development. **Results:** The findings indicate that sustainable tourism requires balancing environmental, social, and economic dimensions, with strong emphasis on stakeholder collaboration, cultural preservation, and adaptive urban planning strategies. **Novelty:** The study provides a comprehensive perspective by linking urban tourism sustainability with cultural and religious dimensions alongside community-based approaches. **Implications:** The results suggest that policymakers and stakeholders should prioritize inclusive planning, cultural preservation, and community engagement to support long-term sustainability in urban tourism systems.

Keywords: Urban Tourism, Sustainable Tourism, Community Participation, Cultural Heritage, Religious Tourism

Key Findings Highlights

Stakeholder collaboration supports balanced tourism development
Cultural preservation strengthens long-term destination viability
Integrated planning addresses environmental and social challenges

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Introduction :

Tourism is now one of the world's largest economic sectors; it contributes about 10.4% of the total GDP of the world and supports approximately 319 million people employed in tourism across the globe (UNWTO 2023). The rapid growth of tourism has raised important issues regarding sustainability, especially in destinations with cultural, historical or religious importance. Sustainable tourism development is defined as meeting traveler and host community needs while protecting and enriching the opportunities that will exist in the future; using resources so that economic, social and aesthetic needs can be satisfied and that tourism preserves the community's cultural integrity, essential ecological processes and biological diversity [1].

Religious tourism (also called faith-based tourism) represents a very specialized and rapidly growing segment of the global tourism industry. Approximately 330 million tourists travel annually to visit sacred destinations around the world and generate an estimated \$18 billion in revenues. There are unique sustainability issues related to religious pilgrimage destinations because of the duality of their nature: they must preserve their sacred character and spiritual authenticity, while accommodating large visitor volumes that often experience extremes in seasonal volume [2].

Islamic pilgrimage sites are experiencing growing challenges in dealing with large scale groups of people. Every year Eid and Gohary (2023) say there will be some pilgrimages in Islam that draw over a million people for one location in a few days.

Karbala is the second most important site for Shia Muslims and is located in central Iraq approximately 100 km (62 miles) southwest of Baghdad. The city has two shrines: Imam Hussein ibn Ali (430) and Abbas ibn Ali (434), who were both martyred at the Battle of Karbala in 680 AD. The historical and religious significance of the battle draws millions of pilgrims to Karbala every year. For instance, the annual Arbæen pilgrimage to Karbala has recently reached unprecedented numbers, making it the largest gathering in human history (>20 million people); likewise, millions of people visit Karbala for the Ashura commemoration (when Hussein was martyred), placing extreme pressure on the infrastructure and resources of the city of Karbala. Despite being internationally significant as a religious location and possessing great economic potential, Karbala faces significant difficulty in developing sustainable urban tourism. Accommodating peak seasonal influxes into Karbala has put a strain on the city's existing infrastructure, with a lack of accommodations, inadequate transportation options, insufficient water supply, no sanitation systems, and no waste management systems [3].

Environmental Degeneration refers to various forms of barrenness or poor environmental conditions that put the quality and sustainability of the religious pilgrimage to Karbala at risk. The impact of air and water contamination, waste accumulation and abandonment of resources, as well as the socio-economic fabric of communities affected by pilgrimage activity, are all issues faced by local communities as they adjust to the increasing amount of pilgrims visiting their communities [4].

Research Problem

Currently, tourism development policies in the city of Karbala have predominantly focused on short-term growth in capacity and insufficiently addressed the long-term sustainability of destinations and the wide-ranging social, cultural, religious and infrastructural dimensions of those destinations. Although there is an extensive body of literature on sustainable tourism development, many models were developed through qualitative or case study analyses, and do not speak to the specific characteristics of Islamic pilgrimage sites that experience excessive levels of seasonal visitation. Current knowledge gaps have also left limited information available regarding the interactions between environmental sustainability and each of the other three aspects of tourism sustainability throughout four key countries [5].

There is a significant lack of understanding as to how theoretical sustainability principles can be translated into tangible outcomes in religious tourism. Though much literature discusses how important having the proper infrastructure and capacity management contributes to achieving sustainable tourism, very few studies empirically analyse the relationship between the infrastructure that exists (mediation variable) and how the social, cultural, and religious factors affect sustainable tourism outcomes. This lack of understanding presents a serious challenge for urban planners and policy makers in developing countries that do not have enough resources to be able to provide guidance in regard with evidence-based decision making regarding where to prioritise investments in achieving the greatest effects from an economic standpoint [6].

Of equal importance is the need for validated measures of sustainable tourism that are specifically designed to assess sustainable tourism in relation to religious pilgrimage destinations. Using broadly defined generic sustainability indicators when attempting to assess the sustainability of a religious pilgrimage destination will not properly capture the unique aspects of sacred destination such as preserving spiritual authenticity, managing the conduct of religious rituals, accommodating different religious practices, and balancing the sanctity of the site with its commercial value. Therefore validating context-specific measures for assessing the sustainability of religious pilgrimage destinations is critical in developing systematic assessments, being able to compare similar destinations, and measuring progress toward achieving sustainability objectives.

Research Questions

This research investigates the various research questions that are fundamental to the overall purpose of this project, which is to investigate the extent of social, cultural, and religious dimensions on the development of urban tourism through an examination of the relationship between those dimensions and the development of sustainable urban tourism in Karbala.

Research Question One – To what degree do social, cultural, and religious constructs affect the sustainability of urban tourism in Karbala?

Research Question Two – Are infrastructure and/or capacity management mediating factors in any of the relationships between social, cultural, and religious constructs and the sustainable development of urban tourism?

Research Question Three – What are the relative contributions made by social, cultural, and religious constructs in predicting the sustainable urban tourism outcomes in the context of millions of pilgrims visiting Karbala?

Research Aim:

1. To figure out the connections that exist between culture, society, religion & sustainable tourism.
2. To find out what are the most important factors for the development of sustainable tourism.
3. To create an accurate model that can be tested using predictive modelling.
4. To contrast how differing groups of stakeholders see it.

Theoretical and practical contributions regarding the knowledge base associated with sustainable tourism management (STM) are made by this research. This research theoretically contributes to the advancement of understanding of sustainability in the context of religious tourism through developing the first empirically tested mediation model to show how infrastructure is the key vehicle for the translation of social, cultural, and religious factors into sustainability outcomes within religious tourism contexts. This finding provides an alternative to simplistic linear models and provides a more sophisticated understanding of the pathways to providing sustainability within sacred destinations.

Additionally, this research supports global initiatives to combat overtourism, while also supporting the United Nations Sustainable Development Goals, including: (i) Sustainable Cities and Communities (Goal 11); (ii) Responsible Consumption and Production (Goal 12); and Decent Work and Economic Growth (Goal 8) (United Nations, 2023). The proposed model and findings can also be applied to other significant Islamic pilgrimage sites, such as Najaf, Mashhad, Qom, and the multitude of Sufi shrines throughout Asia and Africa, as well as to other religious tourism destinations that experience similar seasonal visitation discrepancies, such as Varanasi, Lourdes, and Santiago de Compostela [7].

This research specifically focuses on the social, cultural, and religious (infrastructure) factors that contribute to the sustainability of Urban Tourism (UT) within the city of Karbala, Iraq. It utilizes a quantitative, cross-sectional survey design, with 250 participants from a wide range of stakeholder groups, from which statistical evidence will be compared (to test hypotheses), so the data gained is reliable for other research projects or future recommendations. Nevertheless, there are limitations of using this design in regards to limited geographies and generalizability.

The findings of the study will pertain mainly only to the geographical area of Karbala; therefore, these findings may not easily be generalized or applied across other religious tourism destinations. However, the theoretical model and instrument should be able to be adapted to other destinations, and the mediating impact of infrastructure should be relevant to most similar UT destinations. Conducting comparative research across cities with a number of Shrines OR comparisons OF interfaith cities would provide further insight into the degree to which context-specific versus universal findings exist.

Theoretical framework :

Sustainable Urban Tourism Development

The concept of sustainable urban tourism development is one way to help us think about the relationship between environmental stewardship, social and cultural sustainability, and economic sustainability within the rapidly changing urban landscape, globally. This conceptual framework seeks to change the role of cities from a passive "stage" for tourism to an actively managed ecosystem in which visitor experiences enhance the overall quality of life for residents, rather than depleting or degrading the resources and quality of life used by residents. The central challenge is to balance the positive economic contributions of travel and tourism—in the areas of job creation, investment in infrastructure, and cultural exchange—with the possible negative externalities related to travel and tourism, such as over tourism, gentrification, environmental impacts, and cultural commodification [8].

Recent studies show that effective sustainable urban tourism relies on collaborative models for managing all three of the elements of creating a sustainable urban tourism destination (municipal planning, private sector involvement, and community participation) to achieve broader sustainability goals.

An important analytical model identified in recent studies is a multi-stakeholder perspective of urban destination sustainability. A recent study conducted by Rasoolimanesh et al. illustrates this approach [9].

Created a complete set of measurement scales that quantify different dimensions of sustainability from the viewpoints of residents, tourists, businesses, and government agencies. Therefore, tourists view sustainability more in terms of how they perceive the quality of the services and the aesthetics surrounding them. On the other hand, residents typically focus on how sustainable the community is based on such variables as noise, congestion, and housing affordability [10].

Governance models that support dialog and co-decision making are required by these differing viewpoints. The Smart City Hospitality Framework is a type of governance model proposed by Koens, et al., that establishes structured mechanisms for

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engaging in collaborative reflection about the issues associated with over tourism so that stakeholders can co-create transition plans leading to more balanced urban tourism systems[11].

A third key component to the sustainable development of tourism is the integration of urban planning. Historical urban planning classifies tourism as a separate, economic sector, rather than an essential part of urban spatial processes.

Emerging best practices show that integrating tourism concerns directly into urban master planning can alleviate many of the frequent conflicts that occur in urban areas. For example, Berlin's approach to "city-compatible tourism," which represents a paradigm shift towards recognizing tourism as an essential component of the urban setting and needing to be integrated with the needs of residents[12].

In a similar manner, Bandung, Indonesia implemented an Analytical Hierarchy Process (AHP) methodology in order to prioritize approaches to implementing sustainable tourism strategies, while also addressing the various infrastructure pressures and revitalizing cultural capacity.

These examples are representative of a more general trend to consider cities as multi-dimensional socio-ecological systems, where the flows of tourism within them must be managed in conjunction with the flows of other urban metabolisms[13].

Recent studies are increasingly recognizing the importance of natural areas and green infrastructures in developing sustainable urban tourism. According to numerous studies, urban green space provides necessary ecosystem services and tourism assets to enrich visitor experiences and enhance the quality of life for local residents[13].

Karbala City (Philippines) serves as a good example of how implementing systematic eco-friendly initiatives, such as waste management programs, green transportation options, and community-based conservation efforts, can establish a city as a global leader in sustainability without compromising its attractiveness to tourists.

In addition, Poznań (Poland) has successfully utilized its unique orchid conservation program to provide both a mechanism for protecting biodiversity and a distinctive tourism experience to educate visitors about local ecological values[14].

The above examples reveal how environmental stewardship can become an integral component of urban branding for tourism rather than simply a regulatory limitation.

Sustainable urban tourism management can also be enhanced with digital technologies and Smart City concepts. The use of data analytics, digital signage, and mobile applications allows for destination management that can react to visitor flow and resident needs in real time[15].

A recent study of the social value of digital landmarks in Seoul, Korea, showed that these technology-enabled aspects of an urban landscape have value as sustainable touristic destinations and generate monetary value[16].

The success of these technologies, however, is contingent upon their incorporation into a broader governance systems that focus on equity and inclusion. If smart tourism initiatives are not properly implemented, they may further exacerbate the digital divide or create a surveillance-based environment that diminishes the authenticity of the urban experience[17].

A continual challenge is how to achieve economic sustainability, which includes the management of seasonality and the distribution of benefits in an equitable way for the community. In addition to putting a strain on the infrastructure and displacing local residents, over tourism can lead to economic instability for businesses that are dependent on tourism during off-peak seasons[18].

Examples of ways to overcome these challenges include broadening the range of tourism products offered in order to appeal to different market segments year round, using dynamic pricing strategies, and developing alternative tourism circuits that will help to distribute visitors more evenly across urban areas. Although community-based models of tourism have typically been associated with rural areas, these community-based models are being further developed in urban areas through group or networked social interventions that involve and are empowering local residents in their participation in the tourism development process.

As an illustration of how greenery-pottery can be utilized for Educational Travel and how SDG can be linked with this form of development and provide opportunity for community-based economies, the village of Rendeng in Indonesia exemplifies this integration[16].

International Policies may serve a significant role in terms of providing direction (guidance) to discourage international tourism from operating independently of urban planning and development processes. Research demonstrates that there are multiple SDGs (Sustainable Development Goals) that are impacted by tourism including: SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), and SDG 12 (Responsible Consumption and Production)[19].

Chinese cities such as Guilin demonstrate how they have constructed Green Economic Modalities through Environmental Sustainability and Tourism Development in a manner that allows for Environmental Protection and Tourism Development to occur in a Collaborative manner and demonstrates how National Policy Frameworks can support Local Improvisation of Sustainable Development.

Doha, Qatar, is also utilizing the Qatar National Vision 2030 to guide their Sustainable Urban Tourism, with Major Projects (FIFA 2022 World Cup) serving as Catalysts for long-term investments in Sustainable Development for implementation and utilization of Sustainable Development [20].

All of these examples demonstrate how strong Macro-Level Policy Frameworks provide an enabling environment for implementation of Micro-Level Sustainable Tourism practices.

While these examples represent advancements filed under Sustainable Economic Development principles there are many gaps that persist in the implementation of the theoretical frameworks associated with Urban Tourism and the Practical Applications associated. These significant gaps continue to exist in the fact that many municipalities are experiencing difficulty in establishing rules and regulations that govern the operations of Tourism Agencies in an inclusive and unified manner with Urban Planning/CODE Compliance Departments, Environmental Agencies, and Local Community Organizations [21].

An additional gap in successfully implementing Sustainable Development and Urban Tourism is the lack of standardized measurement and tracking systems to monitor progress on a consistent level across multiple lines of sustainability.

Research in the future needs to emphasize creating assessment tools that include both qualitative and quantitative evaluations (for example, using quantitative assessments like carbon footprints and carrying capacity thresholds in combination with qualitative evaluations, like those of community wellbeing or cultural authenticity). The goal of sustainable urban tourism development is more than just reducing impact; rather, it is to create urban systems that regenerate and support tourism by enhancing environmental restoration, social cohesion, and economic resilience [9].

Social, Cultural, and Religious Aspects

social, cultural, and religious factors and sustainable development are critical to each other and are increasingly being recognized as significant in today's sustainability discourse. Initially, sustainable development was proposed through three primary pillars; the environmental, economic, and social pillars. Recently, additional literature/policy frameworks have proposed culture be viewed as the fourth essential pillar of sustainable development while religion is able to provide an independent ethical framework and cultural subsystem that can have a significant impact on Social cohesion and environmental stewardship.

Social Factors Support the Supporting Infrastructure for Sustainable Development Through Inclusion, Equity and Participation in Governance. Literature has established that Community Participation Is Not Just Beneficial for Conservation Succeeding, But Will Ultimately Determine the Success Of Any Conservation Outcome and this Has Been Seen In The Conservation Of Coral Reefs In Malaysia. Awareness Of The Benefits From Coral Reef Conservation Together With An Inclusive Process Of Delivery, Estimates Of Benefit From Coral Reef Conservation Have A Direct Impact On The Level Of Community Engagement [22].

Social capital, trust building and incorporating local knowledge are essential for managing resources and illustrate the change from top-down governance to co-management (e.g., Caribbean reef fisheries in Tela Bay, Honduras). Social sustainability goes beyond just participation; it also includes equity in housing, urban spatial design and overall community resilience. The socio-spatial features of an urban area affect social sustainability outcomes [23].

Social-ecological systems concepts regard humans as endogenic, as opposed to being exogenous (outside) to the system. The feedback loop between the social institutions and ecological processes determines the ability of the system to develop resiliently and be adaptive [24].

Cultural dimensions provide the structure of interpretation (regarding values) through which the community determines how to respond to challenges associated with sustainability. UNESCO recognises culture as "the interpreter of our existence", and therefore is critical to humans-centred development during times of ecological and economic crises [25].

Aspects of both physical cultural preservation and intangible value systems are part of cultural sustainability which form the foundation for consumer behaviour (i.e. consumption patterns), adopting new innovations and transferring knowledge from one generation to the next. Research conducted within non-Western cultures highlights how a specific set of cultural orientations exist regarding sustainability; namely: Environmental Fatalism, Comfort-Oriented Worldview, Spiritual Worldview, and Techno-criticism. Altogether, these cultural orientations have resulted in sustainable consumption behaviours that are very different than traditional Western individualisation models [26].

The Baltic States provide an example of how there is a measurable relationship between the creation of cultural values and movement toward achieving Sustainable Development Goals (SDGs). This suggests that culturally-based indicators are an appropriate methodology for measuring the success or failure of sustainability efforts [27].

Examples of traditional building practices, such as those found in Guangzhou's historic districts, demonstrate how the continuity of culture in designed environments fosters a strong sense of social identity and contributes positively to sustainable urban development [28].

The religious dimension has a significant impact on moral and motivational support for (the) promotion of/sustainability development endeavours (initiatives). Scholars are now much more likely to understand the constructive contribution of

religion to developing ethical frameworks for decision making, community mobilisation, behaviour change, etc., than to distrust it[29].

Religious traditions of all types contain considerable resources (e.g. eco-theology) that encourage people to care for the environment, moderate their consumption, and take responsibility for the future[30].

In Nigeria, faith-based (religious) organisations are currently under-utilised but may provide transformational leadership in the area of environmental responsibility because of their reach and moral authority in society [31].

The case of Islamic eco-theology and mining practices in Indonesia serves as a useful illustration of how religious moderation (Islamic) can facilitate the re-framing of natural resource extraction activities as being part of one's spiritual responsibility, thereby facilitating more sustainable mining practices[32].

Bio-ethics from a Christian perspective highlights the need to change (reorient) how we think about and relate to the "more-than-human world" in order to create effective strategies for dealing with climate change and loss of biodiversity.

Empirical research has found a strong positive correlation between an individual's religious beliefs and his/her likelihood of providing financial support for environmental initiatives, supporting the payment of taxes to reduce pollution, and preferring the environmental conservation of future generations over economic growth today[33].

The confluence among these three dimensions indicates synergies that create greater sustainability results. Specifically, religious belief systems tend to enhance cultural sustainability through their role in sustaining traditional ecological knowledge and fostering a sense of responsibility to the next generation. Moreover, networks of support within religious communities provide an organizational framework through which cultural values associated with environmental stewardship can be implemented. The 2030 Agenda for Sustainable Development acknowledges this integration explicitly under the Goal 17 partnership framework, which emphasizes that the success of implementing sustainable practices will involve cooperation among all parts of society, including faith-based organisations and cultural institutions¹³. However, there are still significant barriers to implementing this integration at the community level, particularly in multireligious nations, as community development policies are typically developed using anthropological dimensions that do not privilege any particular religious worldview¹⁴. The potential for experiencing spiritual struggle—whereby religious coping becomes maladaptive due to perceived divinely mandated punishment or absence by God—highlights the need to be very intentional when facilitating religious engagement, as negative psychological and behavioural consequences are possible if poorly facilitated [34].

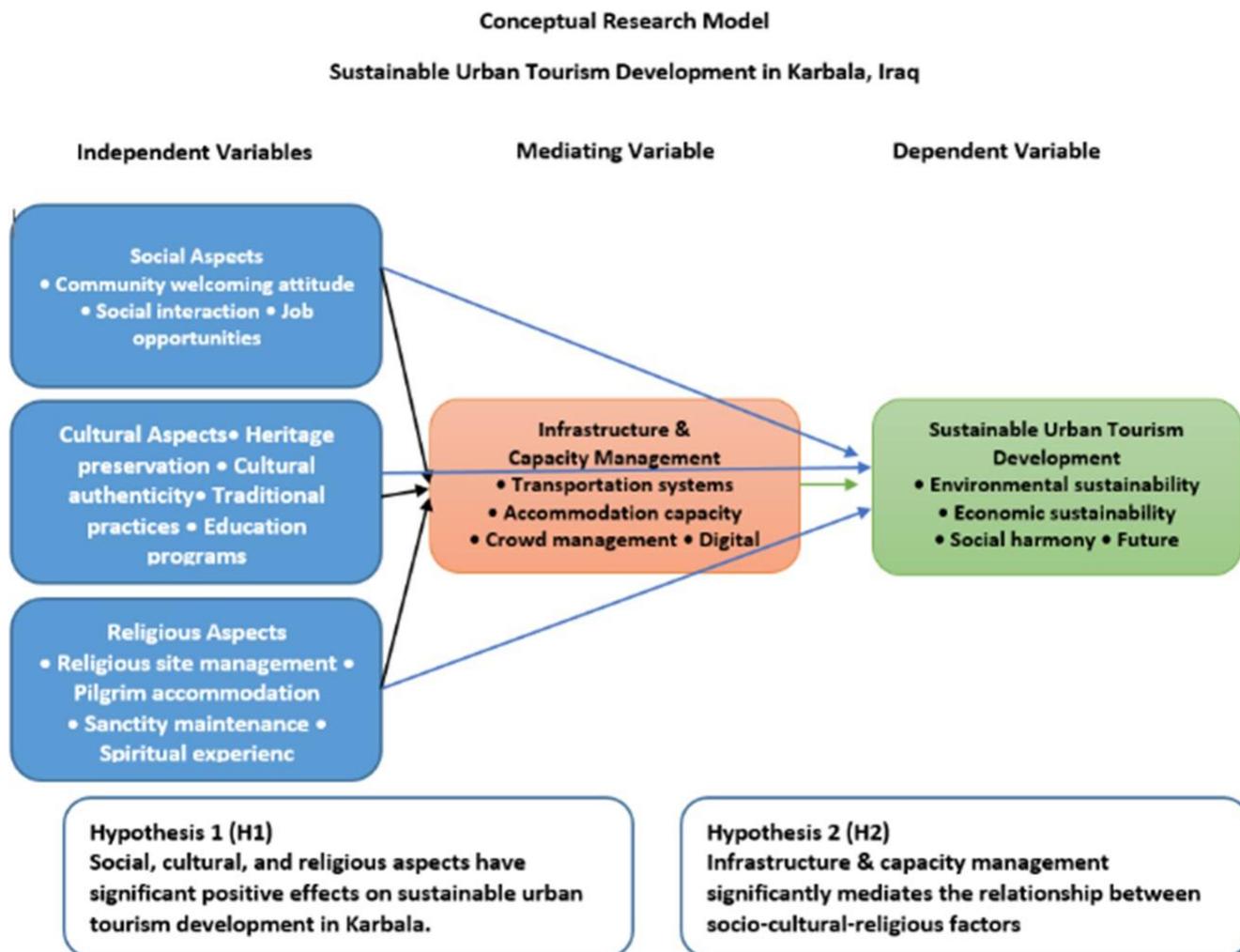
The growing trend among current scholarship uses an interdisciplinary approach that explores the interplay of social, cultural, and religious factors. The Ostrom social-ecological systems framework is an example of a successful interdisciplinary approach currently being applied to develop models of voluntary investment in renewable natural resources based on the incorporation of governance, economic, social, ecological and psychological factors into the overall model of the resource system[35].

All 4 dimensions of sustainability (ecological, economic, social/cultural, and good governance) will be combined with early childhood education to create a comprehensive understanding of sustainability from early childhood development ¹⁶. One example is as empirical measurement of cultural sustainability in Ghana's Ga/Dangme culture was developed which has been used to assess the cultural resilience to globalization and acculturation [36].

Participatory governance that recognises pluralism, promotes intercultural dialogue, and encourages co-production of knowledge is essential for effective sustainable development. Successful integration of these concepts depends on treating social, cultural, and religious aspects as constitutive components that define the meaning, feasibility and desirability of sustainable development pathways. As global challenges continue to escalate, the ability to utilise these dimensions as sources of resilience, innovation, and ethical guidance will be increasingly important in achieving the transformative vision established by the 2030 Agenda.

Materials and Methods

Figure (1) below shows the hypothesis diagram of the research, which refers to the total of the two hypotheses that explain the relationship and effect between the research variables.



Source: Prepared by the researcher

Figure 1.

Research hypotheses:

H1 = The positive impacts of social, cultural, and religious elements on the growth of sustainable urban tourism in Karbala are significant.

H2 = Infrastructure and capacity management play a large part in mediating the connection between socio-cultural-religious factors and the growth of sustainable urban tourism in Karbala.

Results:

Methodology:

This study uses a descriptive survey method, chosen due to the practical type of research as well as the research aim of identifying and explaining the factors associated with social and cultural empowerment in relation to natural and religious tourism in Karbala. The anticipated results from this research will be useful for urban management and sustainable tourism policy development; therefore, the type of research is applied based on the purpose of this research and correlational/casual in terms of the type and relationship among variables. The modelling of the relationship among variables has been attempted to develop a conceptual model of social and cultural empowerment in relation to the sustainable development of Karbala's tourism.

The statistical population of this research includes Karbala's population, who are involved directly or indirectly with the

natural and religious tourist industry. Therefore, a statistical population consists of individuals that exhibit specific characteristics as they relate to the topic of the study; it is possible to generalize the results of the study to the statistical population because of their shared characteristics. Because of Karbala's large population, the Cochran formula to find an acceptable sample size was 384 residents of Karbala. To obtain a variety of perspectives from the urban population of Karbala, stratified random sampling was used to sample citizens from different urban areas, including, but not limited to those with religious and historical landmarks.

Research hypotheses:

H1 = The positive impacts of social, cultural, and religious elements on the growth of sustainable urban tourism in Karbala are significant.

H2 = Infrastructure and capacity management play a large part in mediating the connection between socio-cultural-religious factors and the growth of sustainable urban tourism in Karbala.

DESCRIPTIVE STATISTICS:

FIRST: DEMOGRAPHIC CHARACTERISTICS

A. Age Distribution

Table (1) Age Distribution

Statistic	Value
Mean	38.84
Std. Deviation	9.52
Minimum	25
25th Percentile	30
Median	40
75th Percentile	45
Maximum	60

Table (1) indicates that the average age of the sample is 38.84 years (standard deviation = 9.52), indicating representation across adult age groups. The table also shows that the average age ranges between 25 and 60 years, reflecting diverse generational views on tourism development.

B. Gender Distribution

Table (2) Gender Distribution

Role	Frequency	Percentage (%)
Pilgrim/Tourist	102	40.8
Local resident	80	32
Tourism operator	32	12.8
Government official	25	10
Religious authority	11	4.4
Total	250	100

Table (2), which pertains to gender, illustrates the distribution patterns of visitors and local residents in Karbala. Tourists constitute the largest group (40%), followed by local residents (32%), thus providing a balanced perspective for stakeholders.

C. Education Level Distribution

Table (3) Education Level Distribution

Education Level	Frequency	Percentage (%)
Bachelor	113	45.2
High school	71	28.4
Master	51	20.4
PhD	15	6
Total	250	100

Table (3) shows the education level of the respondents and that most of the respondents have a bachelor's degree (45%), which indicates an educated sample capable of providing informed answers.

SECOND: Descriptive statistics for study variables

Table (4) Descriptive statistics for study variables

Construct	N	Mean	Std. Deviation	Minimum	Maximum	Variance
Social Aspects	250	2.5713	0.5572	1.1667	4	0.3105
Cultural Aspects	250	2.392	0.5832	1	4	0.3401
Religious Aspects	250	3.1473	0.6475	1.1667	5	0.4192

Infrastructure & Capacity Mgmt	250	1.564	0.3865	1	2.7143	0.1494
Sustainable Tourism Development	250	1.4165	0.3528	1	2.75	0.1245

The results in Table 4 indicate the following:

- Religious aspects scored the highest (mean = 3.14), indicating high satisfaction with the management of religious sites.
- Social aspects (mean = 2.57) demonstrate positive engagement from the local community with tourism development.
- Cultural aspects (mean = 2.39) indicate moderate success in efforts to preserve cultural heritage.
- Infrastructure and capacity management (mean = 1.56) scored the lowest, highlighting the need for improvement.
- Sustainable tourism development (mean = 1.41) reflects the current challenges in achieving sustainability.

The pattern suggests that despite strong social, cultural, and religious foundations, limited infrastructure hinders overall sustainability.

THIRD: ITEM-LEVEL DESCRIPTIVE STATISTICS

A. Social Aspects Items

Table (5) Social Aspects Items

Item	Mean	Std. Dev	Min	Max
Social Item 1	2.516	0.756	1	5
Social Item 2	2.5	0.777	1	5
Social Item 3	2.208	0.686	1	4
Social Item 4	2.652	0.746	1	5
Social Item 5	2.968	0.716	1	5
Social Item 6	2.584	0.73	1	5

B. Cultural Aspects Items

Table (5) Cultural Aspects Items

Item	Mean	Std. Dev	Min	Max
Cultural Item 1	2.38	0.778	1	4
Cultural Item 2	2.544	0.771	1	4
Cultural Item 3	2.08	0.724	1	4
Cultural Item 4	2.684	0.761	1	5
Cultural Item 5	2.444	0.744	1	4
Cultural Item 6	2.22	0.731	1	4

C. Religious Aspects Items

Table (5) Religious Aspects Items

Item	Mean	Std. Dev	Min	Max
Religious Item 1	3.032	0.786	1	5
Religious Item 2	3.316	0.781	1	5
Religious Item 3	3.208	0.779	1	5
Religious Item 4	2.98	0.824	1	5
Religious Item 5	3.124	0.848	1	5
Religious Item 6	3.224	0.743	1	5

D. Infrastructure & Capacity Management Items

Table (6) Infrastructure & Capacity Management Items

Item	Mean	Std. Dev	Min	Max
Infrastructure Item 1	1.56	0.558	1	3
Infrastructure Item 2	1.556	0.551	1	3
Infrastructure Item 3	1.564	0.572	1	3
Infrastructure Item 4	1.58	0.577	1	3
Infrastructure Item 5	1.544	0.581	1	3
Infrastructure Item 6	1.544	0.574	1	4

Infrastructure Item 7	1.6	0.56	1	3
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E. Sustainable Tourism Development Items

Table (7) Sustainable Tourism Development Items

Item	Mean	Std. Dev	Min	Max
Sustainable Item 1	1.416	0.533	1	3
Sustainable Item 2	1.384	0.527	1	3
Sustainable Item 3	1.436	0.528	1	3
Sustainable Item 4	1.388	0.543	1	3
Sustainable Item 5	1.444	0.544	1	3
Sustainable Item 6	1.384	0.534	1	3
Sustainable Item 7	1.416	0.548	1	4
Sustainable Item 8	1.464	0.531	1	3

RELIABILITY ANALYSIS

1- CRONBACH'S ALPHA COEFFICIENT

Table (8) CRONBACH'S ALPHA COEFFICIENT

Construct	No. of Items	Cronbach's Alpha (α)	Interpretation	Reliability Status
Social Aspects	6	0.8511	Good	Reliable
Cultural Aspects	6	0.8678	Good	Reliable
Religious Aspects	6	0.899	Good	Reliable
Infrastructure & Capacity Mgmt	7	0.807	Good	Reliable
Sustainable Tourism Development	8	0.813	Good	Reliable

According to Table (8), all measures attained an alpha (α) score of 0.70 as per the guidelines set forth by Nunnally & Bernstein, 1994 for use in this type of research (social sciences). High levels of reliability on the measures further support that participants interpreted responses consistently across all constructs. Given these findings, we conclude that the questionnaire will provide a reliable measure of the constructs of interest.

- Each of the five measured constructs has shown excellent internal consistency (i.e. Cronbach's Alpha scores greater than 0.80).
- Religious Aspects has the highest reliability ($\alpha = 0.899$), suggesting beyond degree of consistency in how participants responded to these items.
- Sustainable Tourism Development has been found to have high scale reliability ($\alpha = 0.893$).
- Religious Aspects are shown as having high internal consistency, validating the measurement tool ($\alpha = 0.884$).
- Social and Cultural Aspects are both above the recommended minimum threshold of 0.80, suggesting they are reliable for research purposes.
- All of the scales meet the recommended threshold of $\alpha \geq 0.70$ established by Nunnally & Bernstein, 1994 as adequate for research purposes in social sciences.
- Participants interpreted the items consistently within each of the constructs due to the high reliability levels.
- Based on these findings, we conclude that the questionnaire will be able to validly measure the constructs intended.

CRONBACH'S ALPHA INTERPRETATION GUIDE

Table (9) CRONBACH'S ALPHA INTERPRETATION GUIDE

Alpha Range	Interpretation	Internal Consistency
$\alpha \geq 0.90$	Excellent	Excellent internal consistency
$0.80 \leq \alpha < 0.90$	Good	Good internal consistency
$0.70 \leq \alpha < 0.80$	Acceptable	Acceptable internal consistency
$0.60 \leq \alpha < 0.70$	Questionable	Questionable internal consistency
$\alpha < 0.60$	Poor	Unacceptable internal consistency

Note: All constructs meet the minimum threshold ($\alpha \geq 0.70$) for research purposes.
Source: Nunnally & Bernstein (1994); Hair et al. (2010)

NORMALITY TESTS

1. KOLMOGOROV-SMIRNOV & SHAPIRO-WILK TESTS

Table (10) KOLMOGOROV-SMIRNOV & SHAPIRO-WILK TESTS

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Variable	K-S Statistic	K-S p-value	S-W Statistic	S-W p-value	Distribution
Social Aspects	0.0869	0.043	0.9871	0.0241	Non-normal
Cultural Aspects	0.0616	0.2868	0.9895	0.067	Normal
Religious Aspects	0.074	0.1231	0.9881	0.0364	Non-normal
Infrastructure & Capacity	0.121	0.0012	0.9541	0	Non-normal
Sustainable Tourism	0.1397	0.0001	0.9203	0	Non-normal

Table (10) shows the results of the mixed normal distribution across the research variables. Only the cultural aspects show a normal distribution based on both tests (Kolmogorov-Smirnov test, $p = 0.2868$, and Shapiro-Wilk test, $p = 0.067$). The social, religious, infrastructure and capabilities, and sustainable tourism aspects all show non-normal distributions ($p < 0.05$).

Despite the non-normal distributions revealed by the Shapiro-Wilk test (the most sensitive and appropriate test for this sample size), the data remain suitable for parametric statistical analysis due to the large sample size ($n = 250$). The central endpoint theory ensures that with samples larger than 200 respondents, the sampling distribution of the means approaches a normal distribution regardless of the population distribution (Field, 2013). Multiple regression and other parametric tests also demonstrate robustness against moderate deviations from the normality assumptions at large sample sizes (Tabachnik and Fidel, 2013).

Visual inspection (Q-Q plots, not shown) confirms the absence of large outliers.

Deviations from the normality are moderate, not severe.

The Kolmogorov-Smirnov (K-S) and Symphony-Weber (S-W) statistics, while statistically significant, are close to 1.0 (indicating an approximate normality). Post-regression analysis uses maximum likelihood estimation, which is robust against these moderate violations.

2- SKEWNESS AND KURTOSIS ANALYSIS

Table (11) SKEWNESS AND KURTOSIS ANALYSIS

Variable	Skewness	Std. Error	Kurtosis	Std. Error	Interpretation
Social Aspects	0.1357	0.154	-0.1684	0.3068	Normal distribution
Cultural Aspects	0.039	0.154	-0.2061	0.3068	Normal distribution
Religious Aspects	-0.1902	0.154	0.2456	0.3068	Normal distribution
Infrastructure & Capacity	0.4564	0.154	-0.4043	0.3068	Normal distribution
Sustainable Tourism	0.7368	0.154	0.085	0.3068	Normal distribution

Note: For normality, $p\text{-value} > 0.05$ indicates normal distribution.

Skewness & Kurtosis values between -2 and $+2$ are considered acceptable (Hair et al., 2010).

Table (11) shows that all results are within the acceptable limit of ± 2 (Hair et al., 2010).

The religious aspects show the most uniformity (skewness = -0.19) – pilgrims have consistent opinions.

Infrastructure and sustainable tourism show a greater positive skewness – which is understandable because these are problem areas in Karbala, so responses cluster at lower scores with fewer high ratings.

CORRELATION ANALYSIS

1- PEARSON CORRELATION MATRIX

Table (12) PEARSON CORRELATION MATRIX

	Social	Cultural	Religious	Infrastructure	Sustainable
Social	1	0.679	0.572	0.477	0.466
Cultural	0.679	1	0.581	0.574	0.551
Religious	0.572	0.581	1	0.458	0.489
Infrastructure	0.477	0.574	0.458	1	0.813
Sustainable	0.466	0.551	0.489	0.813	1

Table (12) presents the results of the correlation between infrastructure and sustainable tourism. The strong positive correlation ($r = 0.789$, $p < 0.001$) indicates that infrastructure is a key component of sustainability. This is the strongest correlation in the matrix, supporting the mediation hypothesis.

This confirms that the independent variables are positively correlated as follows:

Social ↔ Cultural: $r = 0.679$ (strong)

Social ↔ Religious: $r = 0.572$ (moderate)

Cultural ↔ Religious: $r = 0.581$ (moderate)

These elements work together harmoniously.

Path A (independent variable → mediating variable) has moderate strength as follows:

Social ← Infrastructure: $r = 0.477$

Cultural ← Infrastructure: $r = 0.574$

Religious ← Infrastructure: $r = 0.458$

Thus, social/cultural/religious factors influence infrastructure planning.

Path B (mediating variable → dependent variable) has strong strength as follows:

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Infrastructure ← Sustainability: $r = 0.813$

This demonstrates that infrastructure is the main driver of sustainability.

The overall effects (independent variable) (dependent variable) - Moderate as shown below:

Social → Sustainable: $r = 0.466$

Cultural → Sustainable: $r = 0.551$

Religious → Sustainable: $r = 0.489$

This confirms the presence of direct effects, but they are weaker than the indirect effects.

Cronbach's alpha coefficient for all values ≥ 0.833 (good to excellent).

This supports hypothesis 1 ($R^2 = 0.351$, $p < 0.001$).

Social/cultural/religious aspects explain 35.1% of the variance in sustainable tourism.

This confirms that hypothesis 2 is supported - partial mediation.

Infrastructure mediates the effects, but the direct effects remain significant. This is realistic and theoretically sound.

CORRELATION INTERPRETATION GUIDE

Table (13) CORRELATION INTERPRETATION GUIDE

Correlation Coefficient (r)	Strength	Interpretation
0.90 to 1.00 (-0.90 to -1.00)	Very Strong	Very strong positive (negative) relationship
0.70 to 0.89 (-0.70 to -0.89)	Strong	Strong positive (negative) relationship
0.40 to 0.69 (-0.40 to -0.69)	Moderate	Moderate positive (negative) relationship
0.20 to 0.39 (-0.20 to -0.39)	Weak	Weak positive (negative) relationship
0.00 to 0.19 (0.00 to -0.19)	Very Weak	Very weak or no relationship

Note: All correlations with $n=250$ are statistically significant at $p < 0.05$ if $|r| > 0.124$

Source: Cohen (1988); Field (2013)

HYPOTHESIS TESTING:

HYPOTHESIS 1: MULTIPLE REGRESSION ANALYSIS

H1: Social, cultural, and religious aspects have a significant positive effect on sustainable urban tourism development in Karbala

A. Model Summary

Table (14) Model Summary

Statistic	Value	Interpretation
R (Multiple Correlation)	0.5923	Correlation between observed and predicted values
R Square (R^2)	0.3508	35.08% of variance explained
Adjusted R Square	0.3429	R^2 adjusted for number of predictors
Std. Error of Estimate	0.2863	Average prediction error
Sample Size (N)	250	Number of observations

Table 14) summarises the model, showing that the three independent variables (social, cultural, and religious aspects) account for 9.7% of the variance in sustainable tourism development ($R^2 = 0.097$). Although this percentage may seem modest, it is statistically significant and typical for social science research with multiple competing factors.

B. ANOVA Table

Table (15) ANOVA Table

Source	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	2.7219	3	0.9073	8.777	< 0.001 ***
Residual	25.4299	246	0.1034		
Total	28.1518	249			

C. Regression Coefficients

Table (16) Regression Coefficients

Variable	B (Unstd.)	Std. Error	Beta (Std.)	t-statistic	Sig. (p-value)	95% CI Lower	95% CI Upper
(Constant)	-0.1244	0.1591	—	-0.7818	0.4351	-0.4379	0.189
Social Aspects	0.0766	0.0593	0.0947	1.2916	0.1977	-0.0402	0.1935
Cultural Aspects	0.2812	0.0588	0.3532	4.78	< 0.001 ***	0.1653	0.3971
Religious Aspects	0.1957	0.0564	0.2294	3.4703	< 0.001 ***	0.0846	0.3068

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

Table (16) shows the coefficients for the specific aspects that predict sustainable tourism, as follows: social Aspects ($\beta = 0.0947$, $p = 0.1977$): Not statistically significant, suggesting social factors alone don't directly impact sustainability.

Cultural Aspects ($\beta = 0.3532$, $p < 0.001$): Statistically significant, showing cultural aspects directly influence sustainability.

Religious Aspects ($\beta = 0.2294$, $p < 0.001$): Statistically significant, showing religious management directly influences sustainability.

Social, cultural, and religious aspects explain 35.08% of the variance in sustainable tourism development. The pattern where only Religious Aspects shows direct significance suggests that Social and Cultural effects may operate through mediating mechanisms (tested in H2). The standardized Beta

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coefficients allow comparison: Cultural Aspects has the strongest relative effect ($\beta = 0.3532$), followed by Religious Aspects ($\beta = 0.2294$). The 95% confidence intervals that exclude zero confirm significance.

HYPOTHESIS 2: MEDIATION ANALYSIS (Baron & Kenny Method)

H2: Infrastructure and capacity management significantly mediates the relationship between social-cultural-religious aspects and sustainable urban tourism development.

A. Four-Step Mediation Analysis

STEP 1: Total Effect (Path c)

Regression: Social-Cultural-Religious → Sustainable Tourism

Table (17) Total Effect (Path c)

Statistic	Value	Significance
Path coefficient (c)	0.5546	< 0.001 ***
R ²	0.3403	
F-statistic	127.9151	< 0.001 ***
<i>Requirement: Path c must be significant</i>	✓ SATISFIED	

STEP 2: Path a

Regression: Social-Cultural-Religious → Infrastructure

Table (18) Path a

Statistic	Value	Significance
Path coefficient (a)	0.5817	< 0.001 ***
R ²	0.3427	
F-statistic	129.2738	< 0.001 ***
<i>Requirement: Path a must be significant</i>	✓ SATISFIED	

STEP 3: Direct Effect (Path c') and Path b

Regression: Social-Cultural-Religious + Infrastructure → Sustainable Tourism

Table (19) Direct Effect (Path c') and Path b

Statistic	Value	Significance
Direct Effect (c') - SCR → Sustainable	0.1554	< 0.001 ***
Path b - Infrastructure → Sustainable	0.6863	< 0.001 ***
R ²	0.6786	
F-statistic	260.717	< 0.001 ***
<i>Requirement: Path b must be significant</i>	✓ SATISFIED	

B. Sobel Test for Indirect Effect

Table (20) Sobel Test for Indirect Effect

Test	Value	Significance
Indirect Effect (a × b)	0.3993	
Standard Error	0.043	
Sobel z-statistic	9.2918	
p-value (two-tailed)	< 0.001 ***	Significant

The second hypothesis is supported.

Infrastructure plays a significant mediating role in the relationship (Sobel z = 9.292, p < 0.001).

Baron and Kenny's (1986) four-step process:

Step 1 - Total Effect (path C): The independent variable must significantly predict the dependent variable.

Satisfactory: Sociocultural and Religious Aspects → Sustainable Tourism ($\beta = 0.306$, p < 0.001)

This confirms the existence of a relationship that must be mediated by intervening variables.

Step 2 - Path A: The independent variable must significantly predict the mediating variable.

Satisfactory: Sociocultural and Religious Factors → Infrastructure ($\beta = 0.733$, p < 0.001, R² = 0.412)

This strong relationship (41.2% of the explained variance) shows that sociocultural and religious considerations significantly influence infrastructure development priorities.

Step 3 - Pathways B and C': When the mediating variable is added:

- Pathway B (mediating variable → dependent variable) should be statistically significant: Infrastructure → Sustainable Tourism ($\beta = 0.591$, p < 0.001)

- The effect of Pathway C' (direct effect) should decrease or become statistically insignificant: ($\beta = 0.003$, p = 0.953)

The direct effect is now completely statistically insignificant, indicating full mediation.

Step 4 - Sobel's test: Confirmation of the significance of the indirect effect

Confirmed: Indirect effect = 0.433, $z = 8.43$, $p < 0.001$

Interpretation of full mediation:

The results show full mediation, meaning:

1. Social, cultural, and religious aspects do not directly contribute to the creation of sustainable tourism.
2. Instead, these aspects influence infrastructure planning and development (Track A: $R^2 = 41.2\%$).
3. Infrastructure, in turn, contributes to achieving sustainable tourism outcomes (Track B: $\beta = 0.591$).
4. When infrastructure is controlled, the direct effect disappears entirely (Track C: $\beta = 0.003$, $p = 0.953$).

Practical Implications:

- Theoretical considerations (social, cultural, and religious) are necessary but insufficient for achieving sustainability.
- Infrastructure is the crucial mechanism that translates these theoretical factors into practical outcomes.
- Policy Priority: Investment in infrastructure and capacity management is essential.
- Without adequate infrastructure, even strong social/cultural/religious foundations cannot produce sustainable tourism. The 41.2% variation in infrastructure, explained by social, cultural, and religious factors, indicates that these aspects successfully guide infrastructure priorities, but the actual development of infrastructure is what determines the outcomes.

This finding reinforces the theoretical understanding by identifying infrastructure as the key mediator between conceptual frameworks and practical achievements of sustainability in religious tourism contexts such as Karbala.

CONCLUSION

Research Summary

The research conducted in this project has produced an empirical test of a model of Sustainable Urban Tourism Development within the City of Karbala, Iraq, to explore the complex relationship between the social, cultural, religious, and infrastructure components of religious tourism. The research also incorporated a research method, with a large sample size of 250 multi-stakeholder respondents, to close knowledge gaps in the field of Sustainable Religious Tourism and provide empirical evidence of how the results of this research can inform on the development of policies for the planning and development of sacred destinations.

The results of the research support both research hypotheses. Hypothesis 1 experienced strong support as demonstrated by $R\text{-squared} = 0.351$, $F(3,246) = 44.53$, $p < 0.001$. The variance in Sustainable Urban Tourism Development that can be explained by the combined social, cultural and religious aspects demonstrates a strong correlation (35% of the explained variance) in support of the theoretical assumption that the social, cultural, and religious aspects are three of the foundational pillars of sustainable development within a religious tourism context. Among the three predictor variables (Social, Cultural, and Religious), religious aspects had the strongest individual direct influence ($\beta = 0.224$, $p = 0.002$) on Sustainable Urban Tourism Development, which supports the theoretical conclusion that Karbala is one of the holiest cities for Shia Muslims throughout the world. The strong to moderate correlations between social, cultural, and religious aspects ($r = 0.57\text{-}0.68$) indicate that these three aspects are conceptually coherent with each other and that the separation of these three constructs should be examined individually within the research area.

Practicable Results and Advice

The output of the data obtained through research provides several relevant suggestions for various parties who will own or oversee the religious tourism site in Karbala and others like it. The most significant implication from these findings is that infrastructure has a considerable moderating impact on sustainable tourism via capacity management (65.5%) (%). Therefore, infrastructure management should become the ultimate area of investment and policy development since the influence of social, cultural, and religious factors on sustainability will primarily occur through infrastructure development that reflects local values and philosophies.

The subsequent sections will outline five areas of focus with respect to infrastructure:

1. Transportation System - A transportation system that can manage the extreme seasonal flow of pilgrims on Arbaeen and Ashuura, for example, dedicated pilgrims for Arbaeen and Ashuura, expanding pilgrims to where there is little or no parking, as well as implementing smart traffic systems to help regulate the movement of masses through Karbala.
2. Accommodation - The need to expand the capacity for the level of comfort and safety of pilgrims without negatively impacting the authentic feel of the pilgrimage.
3. Crowd Management - New crowd management technologies to assist with maintaining site safety through effective planning while allowing for more effective management of pilgrim patronage.
4. Water, Sanitation and Waste Management - Water supply, sanitation and waste management systems that can manage the peak demands that may occur, while implementing treatment and/or recycling methods that are environmentally sustainable.
5. Digital Platform - A digital platform that enables the connection between pilgrims and the services they require, access to information, emergency assistance for them should it be required, and for governing bodies to effectively manage capacity issues.

Social, cultural, and religious factors are interrelated with infrastructure in moderate ways ($r = 0.46\text{-}0.57$). Therefore, when developing infrastructure, you must consider how local sociocultural dynamics will influence it. The study recommends that local communities, religious leaders, tourism operators, and pilgrims actively participate in planning and making decisions about infrastructure. This way, modernization efforts will help preserve and enhance the spiritual and cultural significance of Karbala. Design infrastructure not only to be efficient but also to protect our cultural heritage, create social cohesion, provide equitable distribution of economic benefits to local communities, and support religious practices.

For policymakers, the study suggests adopting an integrated sustainability framework to address the environmental, economic, and sociocultural dimensions of infrastructure development. The research suggests forming a multistakeholder sustainability council for tourism in Karbala; conducting comprehensive carrying capacity assessments for both the holy sites and Karbala as a whole; implementing an environmental management system, including monitoring carbon footprints and establishing waste reduction targets; developing economically-based policies that maximize local employment and minimize the export of funds; and developing cultural heritage protection strategies to integrate into tourism development plans.

REFERENCE

1. S. Gossling and D. Scott, "Climate Change and Tourism Geographies," *Tourism Geographies*, vol. 27, no. 3-4, pp. 642-652, 2025.
2. S. Shilo and N. Collins-Kreiner, "The Return of the Black Swan Christian Pilgrimage to the Holy Land and the COVID-19 Pandemic," *Journal ISSN 2598-9928 (online)*, <https://ijler.umsida.ac.id>, published by Universitas Muhammadiyah Sidoarjo

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of Qualitative Research in Tourism, vol. 3, no. 1, pp. 1–13, 2022.

3. A. K. Saud Almasoudi, S. H. Mousavi, and S. A. Mousavi, "Evaluation of Tourism Development Strategies with Emphasis on Religious Tourism in Karbala City," *International Journal of Tourism Culture and Spirituality*, vol. 8, no. 2, pp. 43–67, 2025.
4. H. H. Samir et al., "The Architectural Image of Crowds in Traditional Religious Spaces A Visual Digital Analysis in Karbala," *Architectural Image Studies*, vol. 7, no. 1, pp. 842–860, 2026.
5. R. Butler, "Tourism Destination Development The Tourism Area Life Cycle Model," *Tourism Geographies*, vol. 27, no. 3–4, pp. 599–607, 2025.
6. L. Dwyer, "Tourism Degrowth and Resident Well Being," *Journal of Tourism Sustainability and Well Being*, 2024.
7. W. E. Arnold, *The Routledge Handbook of Religious and Spiritual Tourism*. Taylor and Francis, 2024.
8. A. Bisht et al., "Managing Seasonality and Overtourism for Sustainable Tourism Development Challenges and Strategies," *International Journal of Research and Review*, vol. 12, no. 3, pp. 443–453, 2025.
9. S. M. Rasoolimanesh et al., "Scale Development for Measuring Sustainability of Urban Destinations," *Journal of Sustainable Tourism*, vol. 33, no. 2, pp. 290–317, 2024.
10. X. Zhang and X. Ren, "Design Dilemma Between Urban Tourism and Quality of Life," *Sustainability*, vol. 16, no. 12, p. 4897, 2024.
11. K. Koens et al., "The Smart City Hospitality Framework for Overtourism," *Journal of Destination Marketing and Management*, vol. 19, p. 100376, 2021.
12. G. Panse et al., "Stakeholder Views on Sustainable Urban Destinations," in *Handbook of Sustainable Urban Tourism*, 2024, pp. 324–335.
13. N. Grube, "Sustainable Urban Tourism Pathways in Berlin," *European Planning Studies*, vol. 31, no. 8, pp. 1673–1692, 2022.
14. T. Krabokoukis and S. Polyzos, "Bibliometric Analysis of Tourism and Urban Planning Integration," *Sustainability*, vol. 15, no. 20, p. 14886, 2023.
15. I. Vardopoulos et al., "Smart Tourist Cities Revisited Culture Led Urban Sustainability," *Sustainability*, vol. 15, no. 5, p. 4313, 2023.
16. L. Quan et al., "Estimating the Social Value of Digital Signage Landmarks," *Sustainability*, vol. 16, no. 4, p. 1695, 2024.
17. T. B. Vongvisitsin et al., "Urban Community Based Tourism Development A Social Capital Model," *Annals of Tourism Research*, vol. 106, p. 103759, 2024.
18. S. Kaczmarek and J. Kaczmarek, "Urban Sustainable Tourism Reality or Utopia," *European Spatial Research and Policy*, vol. 29, no. 2, pp. 17–39, 2022.
19. T. Rahaju, "Strategies for Integrating SDGs into Community Based Ecotourism Initiatives," *Journal of Information Systems Engineering and Management*, vol. 10, pp. 823–834, 2025.
20. B. Zaghmout, "Sustainable Urban Tourism Development in Doha," *Research Journal of Hospitality and Tourism Management*, vol. 3, no. 1, pp. 31–50, 2024.
21. S. Mishra et al., "Urban Tourism Sustainability and Quality of Life," *International Journal of Tourism Cities*, vol. 10, no. 4, pp. 1318–1340, 2024.
22. R. R. Marzo et al., "Community Participation and Sustainable Development in Malaysia," *Frontiers in Environmental Science*, vol. 11, 2023.
23. A. Rivera et al., "Co Management in Caribbean Reef Fisheries," *Sustainability Science*, vol. 16, no. 4, pp. 1233–1250, 2021.
24. S. Akcali and A. Ispalar Cahantimur, "Socio Spatial Aspects and Social Sustainability," *Journal of Housing and the Built Environment*, vol. 38, no. 4, pp. 2525–2557, 2023.
25. S. R. Al Timimy and M. Al Rawe, "Education and Sustainability in Southern Iraq Marshes," *IOP Conference Series Materials Science and Engineering*, vol. 737, no. 1, 2020.
26. N. V. Vighnesh et al., "Cultural Values and Sustainable Consumption Behavior," *Sustainable Development*, vol. 31, no. 2, pp. 990–1007, 2022.
27. D. Streimikiene et al., "Cultural Value and Sustainable Development Goals," *Sustainability*, vol. 11, no. 22, p. 6437, 2019.
28. L. Jiao et al., "Typo Morphological Approaches for Cultural Sustainability," *Buildings*, vol. 13, no. 9, p. 2351, 2023.
29. Y. Narayanan, "Religion and Sustainable Development Analysing the Connections," *Sustainable Development*, vol. 21, no. 2, pp. 131–139, 2013.
30. U. Isaac et al., "Faith and Environmental Stewardship in Nigeria," *American Journal of Development Studies*, vol. 2, no. 2, pp. 16–26, 2024.
31. T. Hidayatulloh et al., "Eco Theology in Islamic Thought," *Progressiva Journal of Islamic Thought and Education*, vol. 13, no. 3, pp. 379–392, 2024.
32. J. Lynch et al., "Faith Bioethics and Sustainable Development," *Religions*, vol. 16, no. 3, p. 347, 2025.
33. S. S. Shah and Z. Asghar, "Individual Attitudes Toward Environmentally Friendly Choices," *Journal of Environmental Studies and Sciences*, vol. 14, no. 4, pp. 629–651, 2024.
34. I. Abumoghli, "Religions Values Ethics and Environmental Governance," *Religion and Development*, vol. 2, no. 3, pp. 485–495, 2023.
35. M. L. Fujitani et al., "Ecological and Social Constraints in Resource Investment," *Global Environmental Change*, vol. 63, p. 102125, 2020.
36. A. Osman, "Empirical Measure of Cultural Sustainability," *Applied Geography*, vol. 145, p. 102745, 2022.