

A cultural study of smart services with respect to Nashik kumbhmela

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I ABSTRACT: The Nashik Kumbh Mela, held every twelve years, is among the world's largest spiritual gatherings, drawing millions of pilgrims [10][14]. This massive influx creates significant demand for organized services like lodging and food [11][15]. With increasing expectations for digital convenience, there is a strong need for smart solutions to enhance the pilgrim experience while respecting cultural values [1][3][13]. Currently, no unified digital platform exists to help visitors find suitable accommodations or meal options based on their preferences and spiritual routines [5][6]. This research proposes a Java-based smart web application that offers personalized information on hotels, breakfast availability, and nearby restaurants for lunch and dinner.

By combining structured data from hotels and food outlets with user inputs, the system delivers tailored, culturally aware recommendations [7][8]. Designed for both mobile and desktop users, it aims to provide an intuitive and accessible platform. The approach can also be adapted to other large-scale religious events, supporting the wider integration of smart technologies in cultural event management [2][16][17].

II KEYWORDS: *Nashik Kumbh Mela, Smart digital services, Hotel and accommodation search, Food and meal service options, Budget friendly booking system*

III INTRODUCTION:

Nashik, a major city in Maharashtra, is renowned for its cultural and spiritual significance, especially as the host of the Kumbh Mela held every twelve years [10][14]. This massive religious gathering attracts millions of devotees who participate in rituals and seek spiritual enrichment [12]. The scale of the event generates a pressing demand for well-organized facilities, particularly accommodation and food options that respect pilgrims' practices and preferences [11][15]. Currently, no single digital platform exists to guide visitors toward nearby hotels or culturally appropriate dining choices [5][6], leaving many to depend on informal recommendations or time-consuming manual searches. With the increasing use of technology in travel planning, there is a clear scope for an efficient, user-friendly solution [3][13]. This project proposes a Java-based web application to help pilgrims easily find and book hotels while locating suitable breakfast, lunch, and dinner outlets. Users can filter results by location, meal type, budget, and proximity to key religious sites to ensure both convenience and cultural sensitivity [4][9]. The

platform aims to ease logistical challenges, allowing pilgrims to focus on their spiritual journey, and its model can be adapted for other large-scale religious events across India.

IV RESEARCH OBJECTIVES

1. Research Objective: Develop a Java-based web application to help pilgrims easily locate and book suitable accommodation during the Nashik Kumbh Mela.
2. Provide accurate details of food outlets serving breakfast, lunch, and dinner aligned with cultural and dietary preferences.
3. Minimize time and effort spent by pilgrims in searching for lodging and meals.
4. Create a culturally respectful, mobile- and desktop-friendly platform.

V LITERATURE REVIEW

Recent research on pilgrimage and tourism in India consistently highlights the importance of accommodation, food, and proximity to sacred sites for pilgrim satisfaction. However, most studies treat lodging and meals separately, offering little insight into integrated services during mass events like the Kumbh Mela. Works on spiritual tourism and religious hospitality stress motivations, infrastructure challenges, and sustainability but rarely examine digital solutions tailored to pilgrims' cultural and dietary needs [11][12][15]. Food-related studies underline the ritual and identity value of cuisine yet do not propose user-facing tools to help locate appropriate meals. Even technology-focused case studies—such as those on the Mahakumbh or Himalayan smart tourism—emphasize transport, hygiene, and connectivity rather than combined hospitality systems [3][13][16]. Overall, the literature shows a clear gap in research on smart platforms that jointly address accommodation and culturally sensitive food services for large-scale religious gatherings.

VI PROBLEM DESCRIPTION

Large religious gatherings like the Nashik Kumbh Mela draw millions of pilgrims who require clean, convenient, and culturally appropriate lodging and meals [10][14]. While studies highlight the importance of these services, they rarely address how accommodation and food can be

integrated into a single, user-friendly platform [11][15]. Existing research on digital tools focuses mainly on transport, hygiene, or crowd control, leaving a gap in hospitality solutions [2][13][16]. At present, pilgrims depend on fragmented or informal information, making it difficult to find suitable hotels or food outlets that meet spiritual and dietary preferences. This project seeks to fill that gap by developing a smart, accessible system that combines accommodation and meal services for large-scale religious events.

VII METHODOLOGY

This study adopts a mixed-methods approach, blending quantitative and qualitative techniques. Quantitative data will be gathered through structured surveys, while qualitative insights will come from interviews, observations, and user feedback. A prototype of the proposed web application will be tested, where possible, to evaluate usability and effectiveness.

Data collection: Survey questionnaires will be distributed online (for example, via Google Forms) to pilgrims, local service providers such as hotels and food outlets, volunteers, and event organizers. The survey will cover topics like accommodation experiences, dietary preferences, use of digital tools, and price sensitivity. Complementary qualitative data will be obtained through direct observations, informal discussions, and interviews during the Kumbh Mela or with past participants to capture anecdotal experiences and refine the application design [7][8].

VIII. ANALYSIS AND DISCUSSIONS:

Survey results show a digitally aware audience with a large share of first-time visitors who rely on social media for event information [8]. Accommodation is the top concern: most respondents favour full-facility hotels, advance booking and mobile-based reservation systems [9][11]. Food choices show a similar pattern, with a clear preference for apps or online maps to locate outlets [6].

Respondents also value cultural immersion in lodging, such as traditional décor and local experiences, alongside price and availability. Overall, the findings point to a strong demand for an integrated, easy-to-use platform that combines hotel booking, food recommendations and other key services for the Kumbh Mela. The proposed web application directly addresses this gap and could be replicated at other large religious events in India [2][16][17].

IX RESULTS AND SURVEY

Survey findings show pilgrims prefer mobile apps for hotel bookings and food information. Full facility hotels, advance reservations, and culturally immersive stays are highly

favoured. Social media is the main source of event information [8]. The results highlight strong demand for an integrated platform combining lodging, meals, and essential services for the Kumbh Mela.

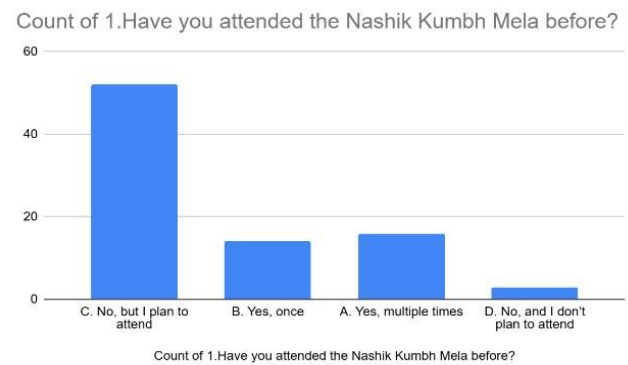


Fig.1: Responses to “Have you attended the Nashik Kumbh Mela before.

The bar chart shows that the majority of respondents (61.2%) have not attended the Nashik Kumbh Mela but plan to do so, while smaller proportions attended once (16.5%) or multiple times (18.8%). Only a few (3.5%) do not plan to attend, indicating a high interest among first-time visitors.

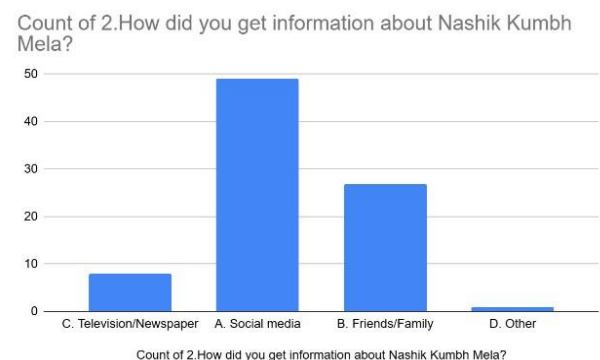


Fig.2: How did you get information about kumbh mela.

Based on the provided bar chart, **Social media** was the most common way people got information about the **Nashik Kumbh Mela**, with a count approaching 50. The next most significant source of information was **Friends/Family**, which accounts for roughly half the responses seen for social media. Traditional media like

Television/Newspaper and **Other** sources were far less utilized.

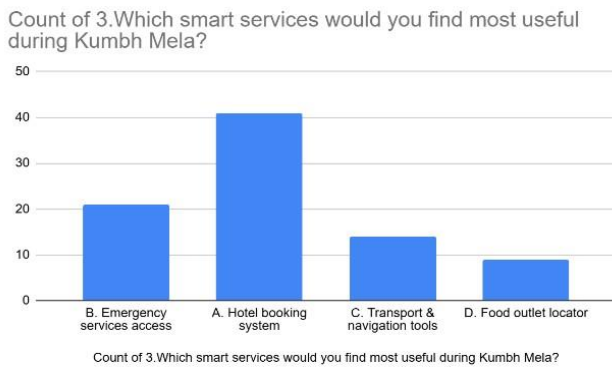


Fig.3: which smart services would you fine most useful during kumbh mela.

Based on the chart, the **Hotel booking system** was overwhelmingly considered the most useful smart service during the Kumbh Mela, with a count exceeding 40. **Emergency services access** was the second most desired service. In contrast, **Transport & navigation tools** and the **Food outlet locator** were found to be less useful by the respondents.

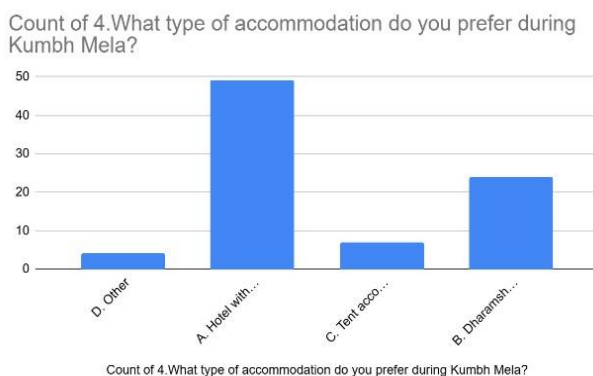


Fig.4: What types of accommodation do you prefer during kumbh mela.

The bar chart indicates that **Hotel with modern facilities** is the most preferred type of accommodation during the Kumbh Mela, receiving nearly 50 responses.

Dharamshala is the second most popular choice, preferred by approximately 24 respondents. **Tent accommodation** and **Other** options were significantly less preferred.

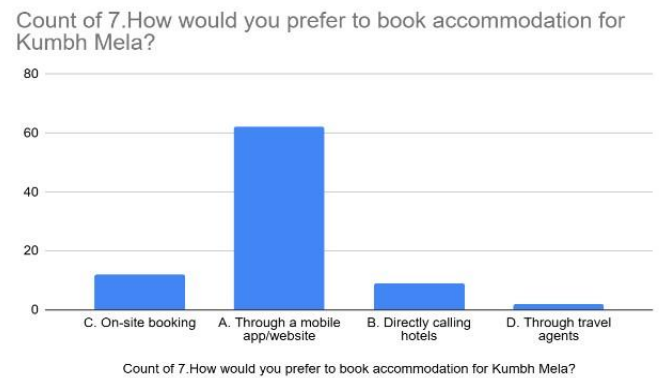


Fig.5: How would you prefer to book accommodation for kumbh mela.

Based on the above bar chart, the most preferred method to book accommodation for the Kumbh Mela is **Through a mobile app/website**, with a count of over 60. **On-site booking** is the second most common preference, followed by **Directly calling hotels**. Booking **Through travel agents** is the least preferred option.

X. CONCLUSION AND FUTURE SCOPE

This study highlights the importance of implementing smart tourism solutions that are culturally informed and seamlessly integrated at the Nashik Kumbh Mela. Survey results indicate that pilgrims show a strong preference for mobile applications to reserve fully equipped hotels and rely primarily on social media for event updates[8][10][14]. The Java-based web application proposed in this study meets these needs by combining hotel booking with suggestions for culturally appropriate meals, improving both convenience and overall visitor satisfaction. In future applications, this model can be adapted for other large-scale religious and cultural events. Potential enhancements include real-time crowd monitoring, partnerships with local authorities, and the integration of additional smart tourism technologies to further enhance efficiency and user experience[2][16][17].

XI. REFERENCES

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