

## Tourist expectation and their perception towards Service Quality : The case of Baidyanath Dham Jyotirlinga, Deoghar

Vaishali Singh

Tezpur University, vaishali.july7@gmail.com

Anjan Bhuyan

Tezpur University, anjanb@tezu.ernet.in

Follow this and additional works at: <https://scholarworks.gvsu.edu/jti>



Part of the [Hospitality Administration and Management Commons](#), and the [Tourism and Travel Commons](#)

---

### Recommended Citation

Singh, Vaishali and Bhuyan, Anjan () "Tourist expectation and their perception towards Service Quality : The case of Baidyanath Dham Jyotirlinga, Deoghar," *Journal of Tourism Insights*: Vol. 14: Iss. 1, Article 22. Available at: <https://doi.org/10.9707/2328-0824.1373>

Available at: <https://scholarworks.gvsu.edu/jti/vol14/iss1/22>



This work is licensed under a [Creative Commons Attribution 4.0 International License](#).

This Article is brought to you for free and open access by ScholarWorks@GVSU. It has been accepted for inclusion in Journal of Tourism Insights by an authorized editor of ScholarWorks@GVSU. For more information, please contact [scholarworks@gvsu.edu](mailto:scholarworks@gvsu.edu).

**Tourist expectation and their perception towards Service Quality:  
The case of Baidyanath Dham Jyotirlinga, Deoghar**

**Abstract**

The purpose of this study is to examine the perceptions and expectations of tourists regarding the Service Quality attributes at Baidyanath Dham Jyotirlinga in Deoghar, Jharkhand. The aim is to identify the significant areas of shortcomings in the tourist amenities/services offered at the pilgrimage site and suggest ways to improve the overall pilgrimage experience. The study used the scale development procedures provided by Churchill (1979) and Hinkin (1995) as the initial step in developing a service quality scale. First, a thorough literature analysis highlighted six crucial factors: accommodation, information accessibility, transportation, safety and security, hygienic food and drink, and temple service. Next, 31 measurement items were created and revised using deductive approaches and expert assessments ( $n = 4$ ) to guarantee content validity. Finally, a pilot test with 101 tourists using offline surveys was carried out, resulting in the addition of two items. Cronbach's alpha values of 0.830 and 0.937 demonstrated the instrument's reliability. The findings demonstrate that a statistically significant difference exists in tourist perceptions and expectations for four dimensions out of the six dimensions taken into consideration, namely, Temple Service Quality, Accommodation, Ease of Information, and Safety and Security. This study establishes a framework for evaluating service quality at pilgrimage sites and identifies major areas for improvement. It provides managers with practical insights to improve tourist satisfaction and produces a reliable measurement scale that can be applied to a variety of religious tourism contexts, making a substantial contribution to both academic research and practical applications. The study also highlights the significant gaps in various service quality dimensions at the pilgrimage destination of Baidyanath Dham.

**Keywords** – Pilgrimage tourism, Pilgrimage, India, Service Quality, Jyotirlinga

**Paper type** – Research paper

**Glossary**

1. **Shravani Mela:** It is one of the longest religious fairs in the world. It begins with the onset of Sawan (July-August) and continues for a month. Lakhs of Shiva devotees visit the Baidyanath Dham Jyotirlinga during this time per day.
2. **Kanwar:** It is a contraption on which decorations and small pots are tied and filled with water. Typically, the Ganga is the source of the water, but sometimes its local equivalents will suffice. The water is offered to Lord Shiva.
3. **Kanwar Yatra:** It is a yearly journey by devotees of Lord Shiva to the pilgrimage sites of Sultanganj (Bihar), Gaumukh, Haridwar, and Gangotri (Uttarakhand) to collect Ganges River waters. Millions of devotees collect holy water from the Ganga and carry it hundreds of miles to offer in the local Shiva shrines, Jyotirlingas, or temples of prominence.
4. **Bol-Bam/ Kanwariya :** Bol Bam are a specific type of tourist who visit the Jyotirlinga barefoot during Shravani Mela to offer holy water to the Jyotirlinga. They are normally seen clad in saffron attire. They are also called Kanwariya because they carry Kanwar on their shoulders.
5. **Panda:** Pandas are priests who help in performing the ritual and pooja.

**1. Introduction**

Pilgrimage sites have consistently been significant locations for both spiritual and commercial activities, drawing millions of tourists from around the world who participate in a variety of social, religious, and cultural activities (Bhardwaj, 1983; Coleman & Eade, 2004; Timothy & Olsen, 2006; Vukonic, 1996). Effective management and high-quality services are necessary to safeguard sacred values and ensure the satisfaction of tourists at these sites, which is a combination of market activities and religious experiences (Hyde & Harman,

2011). Regardless of the significant influence of pilgrimage tourism on global tourism, there is an absence of attention paid to the proper assessment of service quality at these significant sites, particularly in India (Verma & Sarangi, 2019). Previous studies have demonstrated that pilgrimage sites possess business potential, as they function as centres for the purchase and sale of spiritual products and services, which in turn influence the experiences of pilgrims and tourists. (Moufahim & Lichrou, 2019) Numerous academic studies have been conducted to examine the growth of pilgrimage tourism; however, only a small number of these investigations have attempted to develop a specialized scale for evaluating the quality of service in pilgrimage tourism (Kumar & Singh, 2015; Verma & Sarangi, 2019; Hsiao-Ming et al., 2020). The SERVQUAL model was used in the majority of studies that examined the quality of service in pilgrimage tourism. The SERVQUAL scale is not a specific scale, which results in significant gaps in the research (Ladhari, 2009). In order to understand and improve the experiences of pilgrims and tourists, it is important to evaluate the character of service at pilgrimage sites. While Debasish Batabyal et al. (2023) developed a service quality model for temples using online reviews for twelve jyotirlingas, there is still a need for research that combines real-time evaluations with tourists' perceptions. Meeting the religious and spiritual requirements of tourists is essential for enhancing their satisfaction, as per Weidenfeld (2006).

The purpose of this research is to address the gaps in service quality at Baidyanath Dham by addressing the methodological flaws in previous studies and filling the literature deficiencies through identified factors. India is a perfect location for this research, as it is home to the world's largest Hindu population, which is 966 million individuals (*Census Report / National Portal of India*, 2011). India has been designated as a "religious outlier" and a substantial 'Hindu bloc' by the World Economic Forum (Jacobs, 2019). The Indian government's initiatives, such as the PRASAD scheme, which has a combined value of over Rs. 6925.04 crore, highlight the importance of developing these pilgrimage sites responsibly and ecologically (Reddy, 2024). The objective of these initiatives is to enhance the religious tourism experience and encourage domestic tourism, which is essential for the expansion of India's tourism sector (Pande & Shi, 2023). It is important to conduct academic research on the service quality at pilgrimage sites in order to guarantee their ongoing growth and sustainability in accordance with these factors. The objective of this pilot study is to evaluate the identified variables that are associated with the quality of service at Baidyanath Dham. The results will contribute to the development of a scale (PILQUAL) for assessing the quality of service at pilgrimage sites, which can be adapted and implemented at other religious sites worldwide. Assessing service quality provides practical insights that can enhance tourist satisfaction, improve management processes, and strategically allocate resources, aligning with the government's goals of promoting religious tourism and sustainable development. The significance of this study is therefore threefold. At first, it establishes an initial foundation for the evaluation and improvement of the tourist experience by identifying variables that can be used to evaluate the quality of service at pilgrimage sites. Secondly, it enhances understanding of the service quality deficiencies at Baidyanath Dham, one of the most significant Hindu pilgrimage sites. Third, it contributes to the body of service quality studies in the disciplines of tourism and hospitality.

We start with a brief literature review that concentrates on the identified service quality variables. A discussion of the significance and legends of Baidyanath Dham follows. Subsequently, we examine the methodology and provide a detailed explanation of the methods used to measure these variables. The research identified service quality gaps, which are detailed in the findings section. In conclusion, the paper concludes with a concentrated discussion of the gaps in service quality as well as a broader discussion and conclusion regarding the potential of these identified variables to develop a comprehensive scale for measuring service quality at pilgrimage sites.

## 2. Literature Review

### 2.1 Attributes of Service Quality

In recent years, academic researchers in higher education have prioritised studying quality improvement. (Lassar, Manolis, & Winsor, 2000; Barnes & Vidgen, 2003; Avdjieva & Wilson, 2002). As compared to the

quality of things, which can be easily tested with some degree of autonomy, the quality of a service is immaterial, cannot be touched, and is intangible. Service quality measurement is a tedious task because of the intangibility, interpretability, and diversity of services. Also, the quality of services is not yet clearly defined. Therefore, several studies have provided different definitions. Some quality experts feel that service quality is strongly related to customer expectations. As a result, it is measurable by looking at customer expectations. (Lewis, 1991; Jabonoun & Al Tamimi, 2003; Cronin & Taylor, 1992). Other studies have suggested that service quality is a measure of customer perceptions. Therefore, it has nothing to do with customer expectations. (Saravanon & Roak, 2007). Given the difficulty of objectively assessing quality, it is important to consider how customers feel about the quality of service they receive, and to use that information to pinpoint areas for improvement. This gives way for constructing a scale that can measure the quality of service and explain the shortcomings in service.

Parasuraman, Zeithaml, and Berry (1988) stated that measuring the quality of a service requires comparing the client's pre-delivery expectations with their actual assessment of the service. This was the most specific explanation at the time, and it was also thought to be the most relevant by other scholars. In defining service quality, O'Neill and Palmer (2004) also stressed the significance of expectations and perceptions. The Parasuraman, Zeithaml, and Berry (PZB) model stated that if customer expectations are greater than their perceptions, there exists a service quality gap, i.e., low service quality, and vice versa. Bronchado (2009) supported the research findings of PZB and showed that reliability, responsiveness, assurance, empathy, and tangibility are the top indicators of service quality. The PZB definition established the significance of expected and perceived service quality in establishing overall service quality. The hypotheses of the study were required to determine whether or not there exists a significant relationship between the expected quality of service and perceived quality, as well as the overall service quality, based on past findings. PZB established the concept of a service quality gap as well. They argued that a service quality gap exists if expectations are higher or lower than perceptions (i.e., if expectations are higher than perceptions, this indicates poor service quality, and vice versa). Previous studies have concluded that the SERVQUAL scale is a highly generalised scale that can't be directly applied to the tourism sector. Also, the attributes of service quality that were discussed in the SERVQUAL model might not be the best approach to define the idea of service quality in its entirety. (Fick & Brent Ritchie, 1991). Bhat (2012), in their study, reframed the "SERVQUAL model" to measure service quality in tourism. In their study, Verma and Sarangi (2019) proposed a model to demonstrate the relationship between satisfaction, service quality, safety and motivation. Pai et al., (2013) stated that accommodation, infrastructure, transportation, and room rental infrastructure are the three most essential aspects for pilgrims.

## **Attributes and their importance**

### **1. Accommodation**

Accommodation is a key component of any travel spending plan, considerably influencing tourists' experiences at pilgrimage sites. According to Ryan (2007), effective management of pilgrimage sites benefits accommodation houses, which provide employment and financial assistance to local populations. To ensure tourist and pilgrim satisfaction, accommodation alternatives such as hotels, inns, and public shelters must meet their expectations. Lois-González and Santos (2014) note that public shelters, which are typically a popular alternative owing to their low cost, play an important role in meeting the needs of pilgrims. However, many pilgrimage sites, particularly in the Himalayas, lack proper and adequate lodging, worsening the problem during busy seasons (Sati, 2018). According to Baker and Crompton (2000) and (Žabkar et al., 2010), the quality of lodging is a key outcome of services that has a direct impact on tourist satisfaction.

### **2. Ease of Information**

Effective pilgrimage site management includes providing clear and accessible information, which is essential to improving the visitor experience by allowing tourists to simply explore the site and acquire significant

insights into its significance. According to Eid (2012), gaps in pilgrims' perceptions and expectations are frequently the result of a lack of information about facilities and services. As a result, boosting service quality requires providing easy access to information through well-placed signage, informative pamphlets, and educated guides. Despite attempts, many pilgrimage sites still lack adequate tourist information centers and qualified guides, causing visitor uncertainty and dissatisfaction (Sati, 2018).

### **3. Transportation**

Transportation is another important factor that can impact the overall visitor experience at pilgrimage sites. Hyde and Harman (2011) state that religious pilgrims require transportation to and from sacred sites, as well as within the pilgrimage destination. Efficient and dependable transportation systems are required to suit the needs of pilgrims and visitors, reducing inconvenience and improving their traveling experience. Eid (2012) emphasizes the necessity of quality transportation networks, roads, and modes of communication in meeting pilgrim expectations, making mobility an essential factor in service quality assessment. Transportation concerns are especially acute in areas like the Himalayas, where narrow, poorly maintained roads cause major pain and delays for pilgrims (Sati, 2018). Furthermore, total transportation accessibility, including public transit and ease of movement in crowds, is essential for tourist satisfaction (Gassiot Melian et al., 2016).

### **4. Safety and Security**

Tourists and pilgrims visiting sacred sites are most concerned about their safety and security. Ryan (2007) addresses the importance of good pilgrimage site management, including visitor safety and security. Frequent visits create economic opportunities, resulting in fast urbanization and the introduction of numerous services (Rinschede, 1992). However, proper safety precautions are required to protect tourists. Filingeri et al. (2017) underlines the need to research tourists' safety experiences, such as navigating through crowds, waiting in lines, and accessing public transportation. Providing a safe and secure environment is critical for improving tourist perceptions and satisfaction; hence, it is an important variable in service quality.

### **5. Hygienic Food and Water**

The provision of safe food and water is essential for the health and well-being of tourists and pilgrims. Saayman et al. (2016) note that typical tourism expenditures include meals; therefore, the quality of food and water is an important aspect of visitors' experiences. Ensuring that food and water satisfy hygiene standards helps to prevent health problems and contributes to a positive image of the pilgrimage destination. This measure is essential for assessing service quality since it has a direct impact on tourist satisfaction and the likelihood of returning. The need to respect religious dietary regulations, such as Kashrut, and note that food must be prepared in certain ways to meet the demands of visitors is highlighted (Weidenfeld, 2006). Many pilgrimage locations in the Himalayas struggle to provide appropriate food and water amenities, worsening the difficulties faced by tourists.

### **6. Temple Service**

Temple service, which includes rites, ceremonies, and temple management, is an essential part of the pilgrimage experience. To increase religious fulfillment, service providers must recognize and address pilgrims' spiritual requirements (Eid, 2012). Effective temple service includes not just the quality of religious rites but also the management of facilities, including seating, cleanliness, and accessibility. Providing high-quality temple services ensures that pilgrims have an enriching and fulfilling spiritual experience. This includes the availability of prasad, pooja items, wheelchair access for the elderly and disabled, and participation in aarti ceremonies (Buzinde et al., 2014). Darshan, the act of seeing and being seen by the deity, is still a major motivator for pilgrims and must be successfully managed to suit their expectations (Eck, 1998; Kaur, 1984). Furthermore, factors such as physical architecture, cleanliness, and site-specific spiritual activities influence

visitors' experiences at religious places (Rivera et al., 2009). In conclusion, these six service quality variables—accommodation, ease of information, transportation, safety and security, hygienic food and drink, and temple service—are critical for improving pilgrims' and tourists' overall experiences at religious places. By concentrating on these criteria, pilgrimage site administrators can close the gap between expectations and perceptions, resulting in higher service quality and tourist happiness. Hence, the dimensions used in this paper were derived from different authors through an extensive literature review on pilgrimage tourism. The authors are given in Table 1.

**Table 1 : Sources of selected dimensions**

<b>Dimensions</b>	<b>Authors</b>
Accommodation	Kumar & Singh, 2015; Darfoon, 2013; Sadibekova, et al., 2021
Ease of Information	Hsiao-Ming, et al., 2020; Verma & Sarangi, 2019; Balaji & Venkatesan, 2015; Tripathi, et al., 2010
Transportation	Patwal & Agarwl, 2013; Pai et al., 2013
Safety and Security	Balaji & Venkatesan, 2015; Shah, 2013; Kumar & Singh, 2015; Verma & Sarangi, 2019).
Hygienic Food and Water	Tripathi et al., 2010; Vijayanand, 2012; Patwal & Agarwal, 2013)
Temple Service	Canny, 2012 ; Bhat, 2012 ; Vidhya & Selvam, 2020

Source: Authors' Compilation through Literature Review

## 2.2 Baidyanath Dham, Jharkhand

Deoghar, or “abode of Gods,” is a holy city in the state of Jharkhand. It is also known as Baidyanath, Baba Dham, Hridya Peeth, Ketaki Vana, and Chita Bhoomi (Nair, 2010).

### The Legend

Ravan, the ruler of Lanka, is mentioned in the Shiva Purana as a devoted follower of Lord Shiva (Sivkishen, 2014). He intended to bring Lord Shiva to his realm. Shiva advised Ravan to take one of his twelve jyotirlingas, which were just as powerful as his own presence. However, Lord Shiva specified that Ravan was forbidden to keep the Jyotirlinga anywhere on Earth on the way to Lanka. The other gods were opposed to Ravan taking the lingam to the kingdom of devils. As a result, Varun God (the God of Water) entered Ravan's stomach, forcing him to halt on Earth to relieve himself. Ravan asked a Brahmin (who was truly God Vishnu) to hold the Jyotirlinga for a few minutes on his behalf. Vishnu remained at the location and vanished. Following that, the Jyotirlinga could not be uprooted. Ravan couldn't bring the lingam with him to Lanka, so he came every day to pray there. The location became known as Vaidyanath Dham.

### Significance

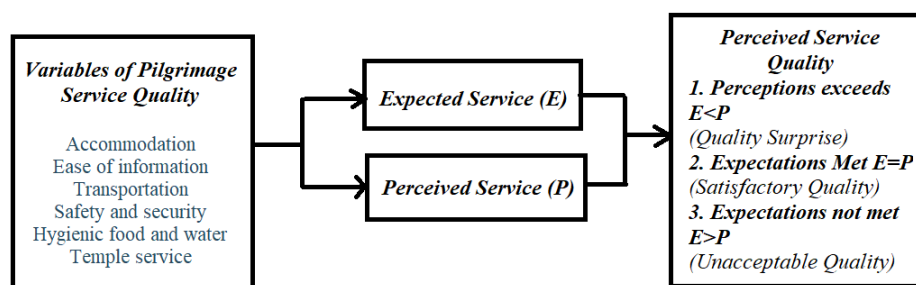
Baidyanath Jyotirlinga is also called ‘*Manokamna Linga*’, and worshipping at this Jyotirlinga is known to fulfill all the wishes of the devotee. This is the only Jyotirlinga out of the twelve Jyotirlinga where ‘*Sparsh Pooja*’ is allowed. ‘Sparsh-Puja’ means worshipping by touching the Jyotirlinga. The devotees can touch the Jyotirlinga and apply sandalwood, curd, or any other offering. This isn’t allowed in any other Jyotirlinga. There is an exception to the Sparsh Puja. During Shravani Mela, when lakhs of devotees visit per day, an ‘*Argha* system’ is introduced every year since the COVID-19 pandemic. In this system, devotees are not allowed to touch the Jyotirlinga. A long tunnel-like structure is placed at the entry of the shrine to the lingam, where the devotees can pour milk, and water as offerings to the Lord Shiva, and the *Pandas* drag the offering through the tunnel to the top of the lingam. Thousands of devotees visit the Jyotirlinga every day during Shravani Mela. During this period, the city of Deoghar is flooded with *Kanwariyas* clad in orange, who walk 108 kilometers barefoot, from Sultanganj in Bihar to fetch water from the Ganga and pour it on the Jyotirlinga in Deoghar. They carry *Kanwars* on their necks, and the chant of “*Bol-Bam*” is heard everywhere. This location is also one

of the 52 Shakti Peeths. Goddess Sati's heart is said to have fallen here while her immolated body was being borne by Lord Shiva.

## 7. Hypotheses

The conceptual framework is depicted in Figure 1. The dependent variable is service quality, while the independent variables are expectations and perceptions.

Figure 1: Conceptual Framework



Source: Authors' compilation

The following hypotheses are formed based on the conceptual framework:

**Ho1:** There exists no significant difference between the expectation and perception of the tourists regarding the accommodation variable of service quality ( $P > .005$ ).

**Ha1:** There exists a significant difference between the expectation and perception of the tourists regarding the accommodation variable of service quality ( $P < .005$ ).

**Ho2:** There exists no significant difference between the expectation and perception of the tourists regarding the ease of information variable of service quality ( $P > .005$ ).

**Ha2:** There exists a significant difference between the expectation and perception of the tourists regarding the ease of information variable of service quality ( $P < .005$ ).

**Ho3:** There exists no significant difference between the expectation and perception of the tourists regarding the transportation variable of service quality ( $P > .005$ ).

**Ha3:** There exists a significant difference between the expectation and perception of the tourists regarding the transportation variable of service quality ( $P < .005$ ).

**Ho4:** There exists no significant difference between the expectation and perception of the tourists regarding the safety and security variable of service quality ( $P > .005$ ).

**Ha4:** There exists a significant difference between the expectation and perception of the tourists regarding the safety and security variable of service quality ( $P < .005$ ).

**Ho5:** There exists no significant difference between the expectation and perception of the tourists regarding the hygienic food and water variable of service quality ( $P > .005$ ).

**Ha5:** There exists a significant difference between the expectation and perception of the tourists regarding the hygienic food and water variable of service quality ( $P < .005$ ).

**Ho6:** There exists no significant difference between the expectation and perception of the tourists regarding the temple service quality variable ( $P > .005$ ).

**Ha6:** There exists a significant difference between the expectation and perception of the tourists regarding the temple service quality variable ( $P < .005$ ).

## 8. Research methodology

Since this study was the first step to developing a scale for measuring service quality, we followed the scale development approaches recommended by Churchill (1979) and Hinkin (1995). The first three steps, as suggested by Churchill (1979), were followed in the study, as shown in Table 2. We complied with the scale development methodologies recommended by Churchill (1979) and Hinkin (1995), as this study was the initial phase in the development of a scale for evaluating service quality. The study adhered to the original three steps recommended by Churchill (1979).

**Table 2 : Steps for scale development**

Process	Methodology	Findings
<b>Identifying Construct Domains</b>	Literature review - searching preexisting scales - defining construct	Accommodation, Ease of Information, Temple Service, Transportation, Safety and Security and Hygienic food and water (6 factors were identified)
<b>Generating and Refining Measurement Items</b>	Deductive approaches - literature review on measurement of service quality at pilgrimage sites Item refinement - content validity: experts (n = 4)	31 items were identified
<b>Collect data for a pilot study</b>	Pilot test (n = 101) - survey: offline	Two items added to the instrument post the pilot survey. Reliability using Cronbach's alpha was 0.830 and 0.937.

Source: Derived from Churchill (1979)

### Step 1: Identifying Construct Domains

In accordance with Churchill's (1979) recommendation, a comprehensive literature review was conducted to determine the factors necessary for scale development. A review of the literature on service quality at pilgrimage tourism destinations was conducted to address this step. Based on the literature review, service quality studies on *pilgrimage tourism and religious tourism sites* were taken into consideration. Additionally, an initial pool of 31 items was generated by incorporating six factors that were identified in the literature: hygienic food and water, safety and security, temple service, transportation, accommodation, and ease of information.

### Step 2: Generating and Refining Measurement Items

The next stage was generating the initial items in order to capture the salient dimensions mentioned earlier (Churchill, 1979). Deductive methods for developing scales were used to generate items based on theoretical frameworks and existing scales; these techniques yielded sufficient data to create a preliminary pool of items (Hinkin, 1995). Thirty-one items encompassing six constructs were initially identified as shown in table 3.

**Table 3 : Sources of items used in the instrument**

Item	Original item	Adapted from
Presence of security (police/forces) at the destination	'Personal safety and security'	(Bhat, 2012)



Availability of proper prevention measures for hazardous situation (fire exit, fire extinguisher).	‘Availability of medical & first-aid facilities’	(Kumar & Singh, 2015)
Expect to be safe while waiting in the queue at the pilgrimage destination	‘You feel comfortable and secure during your visit in the temple’	(Canny, 2012)
Necessary first aid to be available at the destination	‘Availability of first aid’	(Vukonić, 1996) (Vidhya & Selvam, 2020)
Emergency medical facilities available	‘Availability of medical & first-aid facilities’	(Vukonić, 1996) (Kumar & Singh, 2015)
Priest performs pooja as per the rituals	‘Insisting on error-free service’	(Bhat, 2012)
Wheelchair facility for sick/old age citizens/PWD	‘Modern and technologically relevant vehicles’ ‘Access for elderly people and less able visitors’	(Bhat, 2012) (Frochot & Hughes, 2000)
Availability of Prasad and other necessary Pooja items	Suggested by experts since Availability of Prasad and other necessary Pooja items is a significant part of visiting a pilgrimage site.	Suggested by experts
Jyotirlinga Darshan	‘Allowed to have good Darshan’	(Vidhya & Selvam, 2020)
Participation in the Aarti in the temple	Self-addition inspired by the above item since aarti is a significant part of visiting a pilgrimage site.	
Facility to keep footwear	‘Facility was available to keep footwear’	(Verma & Sarangi, 2019)
Availability of locker facility	‘Cloak room & locker facilities’ / ‘Locker Facilities were available to keep valuable’	(Kumar & Singh, 2015) (Verma & Sarangi, 2019)
Proper queue management at the temple	‘You no longer queue at the entrance gate, because the ticket admission office deftly and swiftly addresses the line of visitors at the temple’/ ‘Queue management’	(Canny, 2012)
Clear direction regarding public facilities	‘Public facilities that are provided by the temple authority agency management is well managed (i.e. rest room, parking lot, rest area etc.)’ / ‘Availability of public utilities (drinking water, bathroom & toilets arrangements)’ / ‘Information about toilets was easily available / Information about money exchange/ATM was easily available’	(Canny, 2012) (Kumar & Singh, 2015) (Verma & Sarangi, 2019)
Information about the protocols inside the destination	‘The temple authority agency management provide information and directions that are easily understood by you’	(Canny, 2012)

Easy communication with presence of guides	‘Clarity of information conveyed’ / ‘Good info services (info desk)’	(Romadhoni et al., 2020)
Proper management of street vendors	‘The temple authority agency management can manage well the street vendors, kiosks and souvenir stalls for more orderly selling around the temple area’.	(Canny, 2012)
Temple management addresses pilgrim’s grievance quickly	‘Responsibility to deal with complaints from pilgrims prompt response to requests’	(Romadhoni et al., 2020)
Availability of accommodation near the destination	‘Availability of accommodation services at the destination’	(Kumar & Singh, 2015)
Fair price of the accommodation available	‘Price of the accommodation charged’	(Kumar & Singh, 2015)
Availability of clean toilet and washroom in the accommodation	‘This hotel bathroom and toilet are clean’	(Balaji & Venkatesan, 2015)
Credible and courteous staff in the accommodation	‘Employees are credible and courteous with tourists’ / ‘Friendliness of service at accommodation’	(Bhat, 2012) (Latiff & Imm, 2015)
Staff responds to tourists’ requests quickly	‘The staff responds to tourists’ requests quickly’ / ‘Responsiveness of staff towards request’	(Bhat, 2012) (Latiff & Imm, 2015)
Staff meets the needs, wants and complaints of tourists	‘Employee readiness in meeting the needs, wants and complaints of pilgrims’ ‘Responsiveness of staff towards complaints’	(Romadhoni et al., 2020) (Latiff & Imm, 2015)
Easy availability of means of transportation	‘Availability of transportation services from destination to bus stand/railway station’	(Tsitsiloni et al., 2012) (Vukonić, 1996) (Kumar & Singh, 2015)
Fare price to be charged for transportation	‘Fare of transportation’	(Romadhoni et al., 2020) (Vidhya & Selvam, 2020)
Cordial attitude and behavior of the transporters	‘Serious and friendly service’	(Romadhoni et al., 2020)
Good conditioned motorable road	‘Condition of roads and display of sign boards’	(Kumar & Singh, 2015)
Hygiene to be maintained in terms of food	‘High-quality meals’. / ‘Hygienic preparation of food’ / ‘Quality of food & drink served’ / ‘Food & beverage are of high quality’.	(Bhat, 2012) (Balaji & Venkatesan, 2015) (Latiff & Imm, 2015) (Kumar & Singh, 2015)
Availability of clean drinking water at the destination	‘Quality of food and beverage’	(Bhat, 2012) (Balaji & Venkatesan, 2015) (Latiff & Imm, 2015)
Availability of preferred Choices of food items	‘Availability of preferred dishes’	(Bhat, 2012) (Latiff & Imm, 2015)

Source: Authors' Compilation through Literature Review

To assess content validity, three tourism subject matter experts, five tourists, and two temple management members from the one selected pilgrimage site evaluated the initial pool of items for construct and content validity. Overall, their remarks focused on the survey's length, difficulty level, question order, the suitability of the seven-point Likert scale, and whether or not the questions were related to service quality requirements necessary at pilgrimage sites.

### Step 3: Data Collection for the Pilot Study

After receiving expert feedback, we modified the initial set of 31 items designed to assess service quality at pilgrimage sites. This improved pool was pilot-tested with 150 tourists to ensure understanding and clarity. To obtain data, we used a survey method, handing out structured questionnaires to tourists visiting Baidyanath Dham Jyotirlinga.

The target population of the study comprises all the tourists to the Baidyanath Dham Jyotirlinga. Both domestic and foreign visitors have been considered. The tourists for this purpose constitute only those who have stayed in the city for at least one day. The *Kanwariyas (Bolbam)* were not included in the sample population. This is because those specific types of pilgrims have no expectations while they visit the Jyotirlinga. They neither eat, nor drink, nor stay in any accommodation while they visit.

The present study adopted the non-probability technique of sampling due to the unavailability of a sampling frame. According to Malhotra and Dash (2019), non-probability sampling does not rely on the chance selection of samples. Instead, they rely on the researcher's personal judgment. A combination of judgment, and convenience sampling has been used. Judgment sampling was used to select the survey locations. Though the temple premise is brimming with tourists, they don't normally respond to the survey at the temple due to the heavy crowd and their hurry to worship. Hence, apart from the temple premise, the hotels, guest houses, and dharmshalas in a radius of 2 kilometres from the temple were selected for surveying the tourists. The locations were selected because they register many of the footfalls among all the other locations and accommodations far from the temple. Judgement was also exercised while determining the sampling element since only adult tourists were considered for the survey. Further, only those tourists were considered who stayed for at least one day in the city.

The questionnaire took around 5-7 minutes for visitors to complete. Our research focused on comparing data collected before and after tourists' visits. By contrasting visitors' expectations prior to their visit with their perceptions following it, we were able to analyse the site's level of service quality. During the data cleaning process, we deleted questionnaires with missing data, yielding a more accurate dataset. The total number of final respondents was 101. Table 4 shows the distribution of the respondents. Cronbach's alpha was used to test the instrument's reliability, and the value of 0.830 indicated high reliability. It is important to highlight that our approach to measuring service quality took into account both expectations and perceptions. This comparison showed how tourists' expectations and perceptions of Baidyanath Dham differed, which was important in analysing and understanding the service quality at this important pilgrimage destination.

Depending on the data that is collected, there are three possible outcomes for the perceived service quality:

If perceptions get exceeded,  $E < P$  leads to *quality surprise*: In this scenario, the temple must keep things as they are and has no reason to push for improvement initiatives.

If expectations are met,  $E = P$  is *satisfactory quality*: This being the scenario, the temple must make every effort to provide services of the highest performance possible.

If expectations are not met,  $E > P$  is *unacceptable quality*: In this stage, the temple must exercise caution and attention when formulating policies for the enhancement of quality. They have to work hard to achieve the highest level of excellence so that they can meet the requirements of tourists.

Reliability analysis and the paired t-test were the statistical techniques used to analyse the data.

## 9. Findings

### Descriptive Analysis

Of the 101 people who answered the questionnaire, 74.3% were between the ages of 21 and 40, 24.8% were 41 or older, and only 1% were younger than 20. 43% of the people who responded were men, and 58% were women. About 63.4% of the people who responded were college graduates, and 24.8% were post-graduates.

**Table 4 : Demographic Profile**

Variables	Category of variables	Count	Percentage
Age	<20	1	1.0
	21-40	75	74.3
	41-60	25	24.8
Gender	M	43	42.6
	F	58	57.4
Education	Secondary (10th)	1	1.0
	High Secondary (12th)	5	5.0
	Diploma	3	3.0
	Graduate (Bachelors)	64	63.4
	Post Graduate (Masters)	25	24.8
	Ph. D	3	3.0
Average monthly income per annum	< Rs 10000	12	11.9
	Rs 25000- Rs 50000	23	22.8
	Rs 10000- Rs 25000	25	24.8
	Rs 50000- Rs 75000	22	21.8
	> Rs 75000	19	18.8

Source: Authors' Compilation

There are various purposes for which tourists visit the Baidyanath Jyotirlinga as shown in table 5. 56.4% of the tourists visit the Jyotirlinga '*To perform a specific Puja*', 21.8% visit for Pilgrimage (*Jatra*), whereas 14.9% visit for Votive offering. The study shows that very few tourists visit for Meditation or mental peace (2%), Leisure & Relaxation (2%) and Education/Research purposes (3%).

**Table 5 : Purpose of Visit**

Main Purpose Of Visit	Frequency	Percent
To perform a specific Puja at this place	57	56.4
Pilgrimage (Jatra)	22	21.8
Votive/Votive offering/Special offering	15	14.9
Meditation or mental peace	2	2.0
Leisure & Relaxation	2	2.0
Education/Research	3	3.0
Total	101	100.0

Source: Authors' Compilation

### Reliability analysis

Cronbach's alpha was used to test the reliability of the questionnaire using SPSS 27.0. As shown in table 6, the reliability of the questionnaire was .937 and .830 for the expectation and perception scales, respectively, which indicates high reliability. On the expectation scale, it is observed that all six attributes have high reliability, with Temple Service Statements, Accommodation, and Safety and Security having a reliability of more than 0.8. Though the overall reliability of the perception statement is higher, the variables have a comparatively lower reliability, with only safety and security statements having a reliability < 0.7.

**Table 6: Reliability Analysis Expectation and Perception Statements**

	<i>Expectation Statements</i>		<i>Perception Statements</i>	
<b>Statements</b>	<b>Value of Cronbach's Alpha</b>	<b>No. of Items</b>	<b>Value of Cronbach's Alpha</b>	<b>No. of Items</b>
Accommodation Statements	.826	6	.608	6
Ease of information statements	.785	3	.597	3
Transportation Statements	.742	4	.491	4
Safety and security Statements	.817	5	.717	5
Food and Water Statements	.762	3	.407	3
Temple Service Statements	.826	10	.583	10
<b>Overall Reliability</b>	<b>.937</b>	<b>31</b>	<b>.830</b>	<b>31</b>

Source: Authors' Compilation

### Gap Analysis

First, the reliability analysis was done, and then the paired t-test was applied to statistically analyse the data. The t value with  $\alpha = 0.05$  and the degree of freedom (100) is 1.984. The results from the Paired T-test are shown in table 7.

**Table 7: Paired Sample T-test statistics (N=101, d.f. = 100)**

	<b>Percep tion Mean</b>	<b>Expec tion Mean</b>	<b>Gap Mean (P-E)</b>	<b>t</b>	<b>Sig. (2- taile d)</b>	<b>95% Confidence Interval of the Difference</b>		<b>Remarks</b>
						<b>Low er</b>	<b>Upp er</b>	
<b>Accommodation</b>	5.12	5.39	-.26	-2.39	.019	-0.48	-0.04	<i>Unacceptable quality</i>
<b>Ease of information</b>	4.05	5.58	<b>-1.52</b>	-8.49	.000	-1.88	-1.16	<i>Unacceptable quality</i>
<b>Transportation</b>	5.32	5.41	-.08	-0.90	.369	-0.27	0.10	<i>Not Significant</i>
<b>Safety and security</b>	5.09	5.53	-.44	-3.35	.001	-0.71	-0.18	<i>Unacceptable quality</i>
<b>Hygienic food and water</b>	5.14	5.26	-.12	-1.01	.313	-0.37	0.11	<i>Not Significant</i>
<b>Temple service</b>	4.52	5.52	<b>-1.00</b>	-10.31	.000	-1.19	-0.80	<i>Unacceptable quality</i>

Source: Authors' Compilation

Both expectations and perceptions were rated on a 7-point Likert scale, with higher scores indicating a more positive rating. In most of the cases, tourist perception ratings showed that the actual service they received fell short of expectations. This resulted in a negative gap score (perception – expectation). According to Parasuraman et al., (1988) it is, however, common for tourists' expectations to exceed the actual service perceived, and this signifies that there is always a need for improvement. Gap scores are the difference between the mean perception and mean expectation scores, and these gap scores measure service quality. The more perceptions are close to expectations, the higher the perceived level of quality.

The items with the largest gaps were ‘Availability of locker facility’ (-3.535), ‘Wheelchair facility for sick/old age citizens/PWD (-2.970)’, ‘Facility to keep footwear (-2.604)’, ‘Easy communication with presence of guides’ (-2.465), ‘Proper queue management at the temple’ (-1.446), ‘Emergency medical facilities available (-1.356)’, ‘Clear direction regarding public facilities (-1.287)’. Because of this, the Baidyanath Jyotirlinga temple administration should set up a place for tourists to keep their valuables (a locker facility), a place to keep their footwear safely, appoint a guide to facilitate communication with tourists, an organised system for efficiently moving people through the temple's lines, accessibility of emergency medical care at all times, and a help desk to provide clear direction of where to find the public facilities for the tourists.

**Table 8: Gap mean differences (n=101)**

Attributes	Perception Mean	Expectation mean	Gap (P-E)	T value*
<b>Accommodation</b>				
Availability of accommodation near the destination	5.88	5.50	0.376	2.611
Fair price of the accommodation available	5.33	5.37	-.040	-.275
Availability of clean toilet and washroom in the accommodation	4.53	5.42	-.881	-4.743
Credible and courteous staff in the accommodation	4.98	5.34	-.356	-1.957
Staff responds to tourists’ requests quickly	5.10	5.28	-.178	-1.006
Staff meets the needs, wants and complaints of tourists	4.94	5.45	-.505	-2.924
<b>Ease of Information</b>				
Easy communication with presence of guides	2.84	5.31	-2.465	-10.349
Information about the protocols inside the destination	4.80	5.62	-.822	-3.551
Clear direction regarding public facilities	4.52	5.81	-1.287	-6.248
<b>Transportation</b>				
Easy availability of means of transportation	5.98	5.56	0.416	3.219
Fare price to be charged for transportation	5.14	5.27	-.129	-.780
Cordial attitude and behavior of the transporters	4.56	5.24	-.673	-4.013
Good conditioned motorable road	5.61	5.57	0.040	.261
<b>Safety and Security</b>				
Presence of security (police/forces) at the destination	6.41	5.78	0.624	4.650
Availability of proper prevention measures for hazardous situation	5.34	5.51	-.178	-.985
Expect to be safe while waiting in the queue at the pilgrimage destination	4.88	5.74	-.861	-4.275
Necessary first aid to be available at the destination Perception	5.08	5.54	-.465	-2.329
Emergency medical facilities available	3.75	5.11	-1.356	-6.404
<b>Hygienic Food and Water</b>				
Hygiene to be maintained in terms of food	4.78	5.35	-.564	-3.128
Availability of clean drinking water at the destination	4.85	5.33	-.475	-2.617
Availability of preferred Choices of food items	5.79	5.13	.663	4.469
<b>Temple Service Quality</b>				

Priest performs pooja as per the rituals	5.67	5.63	.040	.248
Wheelchair facility for sick/old age citizens/PWD	1.69	4.66	-2.970	-15.713
Availability of Prasad and other necessary Pooja items	6.38	5.85	.525	3.314
Jyotirlinga Darshan	6.47	5.62	.842	6.497
Participation in the Aarti in the temple	5.05	5.61	-.564	-2.466
Facility to keep footwear	3.01	5.61	-2.604	-11.366
Availability of locker facility	1.95	5.49	-3.535	-21.262
Proper queue management at the temple	4.35	5.79	-1.446	-6.723
Proper management of street vendors	5.52	5.38	.149	.943
Temple management addresses pilgrim's grievance quickly	5.13	5.56	-.436	-2.491

Source: Authors' Compilation

Notes: \**t*-test two-tailed probability < 0.05

### Accommodation variables of service quality

The test statistic is  $t = 2.391$ , with 100 d.f. and  $p < 0.19$ . Since the  $p$  value is less than  $\alpha < 0.05$  and the test statistic value is greater than the  $t$  value at d.f. 100, i.e., 1.984, we reject the null hypothesis and state that there is a difference between tourist expectation and tourist perception of the accommodation variable of service quality. The mean values indicate that the expectation of the tourist before visiting ( $M = 5.39$ ) the Baidyanath Jyotirlinga was significantly higher than perception after the visit. ( $M = 5.12$ ).

Hence, the difference between the means is statistically significant. The largest gaps ( $\geq 0.5$ ) were *Availability of clean toilets and washrooms in the accommodation* ( $-0.881$ ), *Staff meets the needs, wants and complaints of tourists* ( $-0.505$ ).

### Ease of Information variables of service quality

The test statistic is  $t = 8.5$ , with 100 d.f. and  $p = .000$ . Since the  $p$  value is less than  $\alpha = 0.05$  and the test statistic value is greater than the  $t$  value at d.f. 100, i.e., 1.984, we reject the null hypothesis and state that there is a difference between tourist expectation and tourist perception of ease of information variable of service quality. The mean values indicate that the expectation of the tourist before visiting ( $M = 5.58$ ) the Baidyanath Jyotirlinga was significantly higher than perception after the visit. ( $M = 4.05$ ).

Hence, the difference between the means is statistically significant. The largest gaps were 'Easy communication with the presence of guides' ( $-2.465$ ) because there is no presence of guides in the Jyotirlinga. The pandas guide the tourists towards the various parts of the temple.

### Transportation variables of service quality

The test statistic is  $t = 0.9$ , with 100 d.f. and  $p > 0.369$ . Since the  $p$  value is greater than  $\alpha = 0.05$  and the test statistic value is less than the  $t$  value at d.f. 100, i.e., 1.984, we accept the null hypothesis and state that there is no statistically significant difference between tourist expectation and tourist perception of transportation variable of service quality. The mean values denote there is no statistically significant difference between the overall expectation of the tourist regarding the transportation variable of service quality before visiting ( $M = 5.41$ ) the Baidyanath Jyotirlinga and their perception after the visit. ( $M = 5.32$ ). The largest gaps were '*Cordial attitude and behaviour of the transporters*' ( $-0.673$ ) and '*Fare price to be charged for transportation*' ( $-0.129$ ). The reason for this gap might be the inconsistent fare charged by the transporters, as it keeps changing with the onset of tourists. The fare varies most during peak tourist seasons or peak tourist days.

### Safety and Security variables of service quality

The test statistic is  $t = 3.3$ , with 100 d.f. and  $p < 0.00$ . Since the  $p$  value is less than  $\alpha = 0.05$  and the test statistic value is greater than the  $t$  value at d.f. 100, i.e., 1.984, we reject the null hypothesis and state that there is a difference between tourist expectation and tourist perception of the safety and security variable of service quality. The mean values indicate that the expectation of the tourist before visiting ( $M = 5.53$ ) the Baidyanath

Jyotirlinga was significantly higher than perception after the visit. ( $M=5.09$ ). Hence, the difference between the means is statistically significant. The largest gap was '*Emergency medical facilities available*' (-1.356). During the Shrivani Mela, Jharkhand Tourism and other organizations like Patanjali, Art of Living, and various other private philanthropists set up health camps to provide Kanwars with food, water, and essential first aid. But they are absent on other days. The temple management needs to investigate this matter as the Baidyanath Jyotirlinga is brimming with tourists and locals mostly all day of the year.

### Hygienic food and water variables of service quality

The test statistic is  $t = 1.01$ , with 100 d.f. and  $p > .313$ . Since the  $p$  value is greater than  $\alpha = 0.05$  and the test statistic value is less than the  $t$  value at d.f. 100, i.e., 1.984, we accept the null hypothesis and state that there is no statistically significant difference between tourist expectation and tourist perception of hygienic food and water variables of service quality. The mean values denote that there is no statistically significant difference between the expectation of the tourist regarding the hygienic food and water variables of service quality before visiting ( $M = 5.26$ ) the Baidyanath Jyotirlinga and their perception after the visit. ( $M = 5.14$ ). This might be because of the easy availability of dhabas, hotels, and restaurants in the city near the temple area. The item where the gap score was positive, implying that tourist perception was better than their expectation, was '*Availability of preferred choices of food items*' (5.79). The items with negative gap scores are '*Hygiene to be maintained in terms of food*' (-0.564) and '*Availability of clean drinking water at the destination*' (-0.475). This might be because every individual has their own perception of hygiene and cleanliness.

### Temple Service Quality of Service Quality

The test statistic is  $t = 10.31$ , with 100 d.f. and  $p = 0.00$ . Since the  $p$  value is less than  $\alpha = 0.05$  and the test statistic value is greater than the  $t$  value at d.f. 100, i.e., 1.984, we reject the null hypothesis and state that there is a difference between tourist expectation and tourist perception of temple service quality variables. The mean values indicate that the expectations of the tourist before visiting ( $M = 5.52$ ) the Baidyanath Jyotirlinga was significantly higher than perception after the visit. ( $M = 4.52$ ). Hence, the difference between the means is statistically significant. The largest gaps were '*Availability of locker facility*' (-3.535), '*Wheelchair facility for sick/old age citizens/PWD*' (-2.97), '*Facility to keep footwear*' (-2.604), '*Proper queue management at the temple*' (1.446), and '*Participation in the Aarti in the temple*' (-0.564).

### Overall Perceived Quality of Service

It can be seen from Table 9 that the visitors to the Baidyanath Jyotirlinga in Jharkhand have higher expectations than what the temple provides to them. The negative mean score (-0.616) shows that the expectations of tourists are higher than their perceptions regarding the services offered in Baidyanath Dham Jyotirlinga.

**Table 9: Overall Service Quality Paired t-test**

	Overall Perception Mean	Overall Expectation Mean	Gap Mean (P-E)	t	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Service Quality	4.849	5.466	-.616	-7.206	.000	-.786	-.446

Source: Authors' Compilation

## 10. Discussion

The primary motive for conducting this paper was to measure the gaps in service quality in the services being offered at the Baidyanath Jyotirlinga. The study found that, on a scale of 1 to 7, the overall expectation of tourists is 5.466. This is considerably higher than the average, which indicates the high expectations of tourists from the Baidyanath Jyotirlinga. The analysis of dimensions separately reveals that the tourists have higher expectations from the ease of information variable (5.580), safety and security variable (5.538), and temple service variable (5.521), with an expectation score  $< 5.5$ . In general, the expectations are quite high because



they are all greater than 5. According to Parasuraman et al. (1985), tourist satisfaction increases when perceived service quality is high. This is in line with the suggestion of Saravanan & Rao, (2007), who stated that the level of service quality given by the service provider determines satisfaction. Satisfaction and service quality are positively correlated; hence, a higher perception signifies more satisfaction (Fen & Meillian, 2007). This means that variables with higher perception ratings represent higher tourist satisfaction, while variables with lower perception scores represent lower tourist satisfaction. The data analysis implies that tourists are barely satisfied because the total perception mean is 4.849, indicating that the services surrounding the temple require improvement. The gap score was proposed by Parasuraman et al. (1985, 1988) to quantify service quality, and quality was found as a driver of service quality. It can be concluded that the tourists visiting Baidyanath Jyotirlinga are not satisfied with the level of service being offered because it falls short of their expectations. In summary, the obtained results indicate that tourists perceive service quality to be low across all variables, indicating that their expectations are not met at the pilgrimage site.

Since the variables reveal a negative difference between the perceived quality and expected quality at Baidyanath Dham, it is essential that the temple make improvements in all aspects to bridge the gap and enhance tourist satisfaction.

### **11. Service quality gaps in Baidyanath Dham**

The study conducted on service quality at Baidyanath Dham Jyotirlinga reveals several significant gaps between tourist expectations and perceptions across various service quality variables. These gaps highlight areas where improvements are necessary to enhance the overall visitor experience.

#### **Accommodation**

The analysis shows a significant difference between tourists' expectations and perceptions regarding accommodation. The mean expectation before visiting was 5.39, while the perception after the visit was 5.12. The largest gaps were found in the availability of clean toilets and washrooms (-0.881) and staff responsiveness to tourists' needs and complaints (-0.505). These findings suggest that accommodation facilities need to be better maintained and staffed to meet tourist expectations.

#### **Ease of Information**

There is a substantial gap in the ease of information provided to tourists, with the expectation mean at 5.58 and the perception mean at 4.05. The most significant gap was in 'Easy communication with the presence of guides' (-2.465), as there is a notable absence of guides in the Jyotirlinga, with local Pandas informally guiding tourists. This indicates a need for official guides and better informational resources.

#### **Transportation**

The transportation variable did not show a statistically significant difference between expectation and perception, with means of 5.41 and 5.32, respectively. However, there were notable gaps in the 'Cordial attitude and behavior of the transporters' (-0.673) and 'Fare price to be charged for transportation' (-0.129). These gaps suggest that while overall transportation meets expectations, specific aspects like consistent pricing and transporter behavior need improvement.

#### **Safety and Security**

A significant gap was found in the safety and security variables, with expectations at 5.53 and perceptions at 5.09. The largest gap was in 'Emergency medical facilities available' (-1.356), indicating that while temporary health camps are set up during peak times, there is a need for permanent medical facilities to ensure year-round safety for tourists.

#### **Hygienic Food and Water**

The study found no statistically significant difference in the hygienic food and water variables, with expectation and perception means at 5.26 and 5.14, respectively. However, gaps were noted in 'Hygiene to be maintained in terms of food' (-0.564) and 'Availability of clean drinking water' (-0.475), suggesting a need for better food hygiene practices and clean drinking water facilities.

#### **Temple Service**

The most substantial gaps were observed in the temple service variable, with expectations at 5.52 and perceptions at 4.52. Key areas with significant gaps include 'Availability of locker facility' (-3.535), 'Wheelchair facility for sick/old age citizens/PWD' (-2.97), 'Facility to keep footwear' (-2.604), 'Proper queue

management' (-1.446), and 'Participation in the Aarti' (-0.564). These gaps highlight the need for better infrastructure and management within the temple to cater to the needs of diverse visitors.

### **Overall Perceived Quality of Service**

The overall perceived quality of service at Baidyanath Jyotirlinga shows that tourist expectations exceed the services provided, with a negative mean score of -0.616. This indicates a general need for improvement across various service quality dimensions to meet and exceed tourist expectations.

In summary, addressing these service quality gaps at Baidyanath Dham is crucial for improving the visitor experience and ensuring that the site can effectively cater to the needs of its diverse and growing number of pilgrims and tourists.

## **12. Implications of the Study**

This study has profound implications for both academic research and practical implementation in the field of pilgrimage tourism.

**1. Improved Understanding of Service Quality:** This study identifies and measures variables to have a better understanding of service quality at pilgrimage destinations. The findings show the differences between tourists' expectations and their actual experiences, providing useful information for enhancing service quality.

**2. Practical Improvements for Pilgrimage Sites:** The findings can assist managers and service providers at pilgrimage sites such as Baidyanath Dham in improving their offerings. By addressing particular areas where service quality falls short, these venues can increase overall tourist satisfaction, potentially encouraging return visits and recruiting new visitors.

**3. Development of a Comprehensive Scale:** The identification of characteristics unique to pilgrimage sites paves the way for the creation of an extensive scale to assess service quality at various religious sites around the world. This scale can be modified and applied to a variety of scenarios, helping to provide a systematic approach to analyzing and improving service quality in religious tourism.

**4. Policy and Management Strategies:** The study's findings can help inform policymaking and strategic planning at both the local and national levels. Government programs, like the PRASAD scheme and Swadesh Darshan 2.0, can benefit from this research by incorporating the findings into existing frameworks to promote sustainable development and improve religious tourism experiences.

**5. Contribution to Academic Literature:** This research addresses a large vacuum in the academic literature on service quality in pilgrimage tourism. It contributes to the body of knowledge by giving empirical data and a methodological framework on which future scholars might build.

**6. Broader Application to Other Areas:** This study's methodology and conclusions can be applied beyond pilgrimage tourism to other areas of the hospitality and tourism industry. Understanding service quality gaps and tourist perceptions can help different tourism sites enhance their services and better fulfill visitor expectations.

In summary, this study not only improves our understanding of service quality at pilgrimage sites, but it also makes practical recommendations for improvement, adds to academic research, and lays the groundwork for the development of standardized assessment tools that can be applied across multiple contexts.

## **13. Conclusion**

A concise summary of our findings has been provided. In this section, we explore the study's shortcomings, and future research directions. The data analysis conducted helps in understanding how tourists perceive service quality in Baidyanath Jyotirlinga. The negative gap score reveals that perceived service quality is

considerably low. Therefore, the temple administration needs to enhance service quality across all dimensions to increase tourist satisfaction. Tourists expect more than what this pilgrimage site provides. This will allow the site to attract more tourists. This study also has a few drawbacks that should be addressed. The methods in this study can be applied to studies conducted in similar conditions, but due to the non-probability sampling technique, the results cannot be generalised to a wide range of similar temple-related scenarios. Carrying out this research on temples of various sizes, in different states, or of different significance may be a constraint because tourists may expect more from bigger and more significant pilgrimage destinations than smaller temples. Also, this research is limited to one jyotirlinga. The outcomes may differ depending on the service provided at the various other pilgrimage or religious locations. However, the following limitations are insignificant in comparison to the importance of conducting this type of research. A survey of this type should be undertaken on a regular basis to evaluate service quality and determine tourist satisfaction levels, allowing essential changes to be made in the event of any shortcomings. Finally, since this study is a pilot study in the scale development process, subsequent steps should be taken to further refine these variables into a valid scale (PILQUAL) to measure service quality at pilgrimage sites.

## References

- Avdjieva, M., & Wilson, M. (2002). Exploring the development of quality in higher education. *Managing Service Quality: An International Journal*, 12, 372–383. <https://doi.org/10.1108/09604520210451858>
- Balaji, V., & Venkatesan, S. (2015). A Study On Religious Tourism Service Quality In Navagraha Temples, Erstwhile Tanjore District. *International Journal of Management (IJM)*, 6, 171–178. [https://iaeme.com/MasterAdmin/Journal\\_uploads/IJM/VOLUME\\_6\\_ISSUE\\_10/IJM\\_06\\_10\\_019.pdf](https://iaeme.com/MasterAdmin/Journal_uploads/IJM/VOLUME_6_ISSUE_10/IJM_06_10_019.pdf)
- Barnes, S. J., & Vidgen, R. (2003). Measuring Web site quality improvements: a case study of the forum on strategic management knowledge exchange. *Industrial Management & Data Systems*, 103, 297–309. <https://doi.org/10.1108/02635570310477352>
- Bhardwaj, S. M. (1983). *Hindu Places of Pilgrimage in India*. Univ of California Press.
- Bhat, M. A. (2012). Tourism Service Quality: A Dimension-specific Assessment of SERVQUAL\*. *Global Business Review*, 13(2), 327–337. <https://doi.org/10.1177/097215091201300210>
- Brochado, A. (2009). Comparing alternative instruments to measure service quality in higher education. *Quality Assurance in Education*, 17, 174–190. <https://doi.org/10.1108/09684880910951381>
- Buzinde, C. N., Kalavar, J. M., Kohli, N., & Manuel-Navarrete, D. (2014). Emic understandings of Kumbh Mela pilgrimage experiences. *Annals of Tourism Research*, 49, 1–18. <https://doi.org/10.1016/j.annals.2014.08.001>
- Canny, I. (2012). Service quality, tourist satisfaction and future behavioral intentions on culture heritage tourism: An empirical study of domestic local tourist at borobudur temple. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2253156>
- Census Report | National Portal of India. (2011). [www.india.gov.in](http://www.india.gov.in). <https://www.india.gov.in/my-government/documents/census-report>
- Churchill, G. A. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 16(1), 64–73. <https://doi.org/10.1177/002224377901600110>
- Coleman, S., & Eade, J. (2004). *Reframing Pilgrimage : Cultures in Motion*. Routledge.
- Cronin, J. J., & Taylor, S. A. (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56(3), 55–68. <https://doi.org/10.2307/1252296>
- Darfoon, M. (2013). *An examination of service quality and satisfaction in a religious tourism setting*. [https://tigerprints.clemson.edu/cgi/viewcontent.cgi?article=2166&context=all\\_dissertations](https://tigerprints.clemson.edu/cgi/viewcontent.cgi?article=2166&context=all_dissertations)
- Debasish Batabyal, Yashwant Singh Rawal, Chatterjee, P., & Goswami, S. (2023). Temple service quality model for future pilgrimages in Indian sub-continent through user-generated contents (UGC) in TripAdvisor. *International Journal of Tourism Anthropology*, 9(2), 113–113. <https://doi.org/10.1504/ijta.2023.130849>
- Eck, D. L. (1998). The imagined landscape: Patterns in the construction of Hindu sacred geography. *Contributions to Indian Sociology*, 32(2), 165–188. <https://doi.org/10.1177/006996679803200202>

- Eid, R. (2012). Towards a High-Quality Religious Tourism Marketing: The Case of Hajj Service in Saudi Arabia. *Tourism Analysis*, 17(4), 509–522. <https://doi.org/10.3727/108354212x13473157390849>
- Fen, Y. S., & Meillian, K. (2007). Service quality and customer satisfaction: Antecedents of customer's re-patronage intentions. *Sunway Academic Journal*, Vol 4 p.60-73.
- Fick, G. R., & Ritchie, B. (1991). Measuring service quality in the travel and tourism industry. *Journal of Travel Research*, 30, 2–9. <https://doi.org/10.1177/004728759103000201>
- Frochot, I., & Hughes, H. (2000). HISTOQUAL: The development of a historic houses assessment scale. *Tourism Management*, 21(2), 157–167. [https://doi.org/10.1016/s0261-5177\(99\)00045-x](https://doi.org/10.1016/s0261-5177(99)00045-x)
- Gassiot Melian, A., Prats, L., & Coromina, L. (2016). The perceived value of accessibility in religious sites – do disabled and non-disabled travellers behave differently? *Tourism Review*, 71(2), 105–117. <https://doi.org/10.1108/tr-11-2015-0057>
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967–988. [https://doi.org/10.1016/0149-2063\(95\)90050-0](https://doi.org/10.1016/0149-2063(95)90050-0)
- Hsiao-Ming, C., & Ching-Hui, L. (2020). A study of Mazuism religious tourism in Taiwan: an example of dajia jenn lann temple. *International Journal of Religious Tourism and Pilgrimage*, 8. <https://doi.org/10.21427/g68y-2219>
- Hyde, K. F., & Harman, S. (2011). Motives for a secular pilgrimage to the Gallipoli battlefields. *Tourism Management*, 32(6), 1343–1351. <https://doi.org/10.1016/j.tourman.2011.01.008>
- Jabnoun, N., & Al-Tamimi, H. (2003). Measuring perceived service quality at UAE commercial banks. *International Journal of Quality & Reliability Management*, 20, 458–472. <https://doi.org/10.1108/02656710310468614>
- Jacobs, F. (2019, March 26). *These are all the world's major religions in one map*. World Economic Forum. <https://www.weforum.org/agenda/2019/03/this-is-the-best-and-simplest-world-map-of-religions/>
- Kaur, J. (1984). Badrinath: Himalaya's Super Pilgrimage Resort. *Tourism Recreation Research*, 9(2), 21–26. <https://doi.org/10.1080/02508281.1984.11015140>
- Kumar, R., & Singh, L. (2015). The expectations and satisfaction of Hindu pilgrims in north-west India -the case of the Naina Devi shrine. *Open Rubric African Journal of Hospitality, Tourism and Leisure*, 4(2). [http://www.ajhtl.com/uploads/7/1/6/3/7163688/article36vol4\(2\)july-nov2015.pdf](http://www.ajhtl.com/uploads/7/1/6/3/7163688/article36vol4(2)july-nov2015.pdf)
- Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, 1, 172–198. <https://doi.org/10.1108/17566690910971445>
- Lassar, Walfried M, Manolis, C., & Winsor, R. D. (2000). Service quality perspectives and satisfaction in private banking. *Journal of Services Marketing*, 14, 244–271. <https://doi.org/10.1108/08876040010327248>
- Latiff, K., & Imm, Ng. S. (2015). The Impact of Tourism Service Quality on Satisfaction. *International Journal of Economics and Management*, 9, 67–94. <http://psasir.upm.edu.my/id/eprint/41750/1/The%20Impact%20of%20Tourism%20Service%20Quality%20on%20Satisfaction.pdf>
- Lewis, B. R. (1991). Service quality: An international comparison of bank customers' expectations and perceptions. *Journal of Marketing Management*, 7, 47–62. <https://doi.org/10.1080/0267257x.1991.9964139>
- Lois-González, R. C., & Santos, X. M. (2014). Tourists and pilgrims on their way to Santiago. Motives, Caminos and final destinations. *Journal of Tourism and Cultural Change*, 13(2), 149–164. <https://doi.org/10.1080/14766825.2014.918985>
- Malhotra, N. K., & Stayabhusan, D. (2019). *Marketing research : an applied orientation*. Pearson India Education Services.
- Moufahim, M., & Lichrou, M. (2019). Pilgrimage, consumption and rituals: Spiritual authenticity in a Shia Muslim pilgrimage. *Tourism Management*, 70, 322–332. <https://doi.org/10.1016/j.tourman.2018.08.023>
- Nair, S. N. (2010). *The Lord Shiva, his 12 jyotirlingams and 5 bhoota lingams*. Hindology Books.

- O'Neill, M. A., & Palmer, A. (2004). Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education. *Quality Assurance in Education*, 12, 39–52.  
<https://doi.org/10.1108/09684880410517423>
- Pai, A., Prabhu, N., & Nayak, N. (2013). Pilgrim satisfaction - a case study of udupi sri krishna temple. In *Paper Proceedings of International Conference on Tourism and Hospitality Management (Pp. 6-12)*.
- Pande, K., & Shi, F. (2023). Managing visitor experience at religious heritage sites. *Journal of Destination Marketing and Management*, 29, 100800–100800. <https://doi.org/10.1016/j.jdmm.2023.100800>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, Vol. 64, Number 1, p. 12–40.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41–50.  
<https://doi.org/10.1177/002224298504900403>
- Patwal, A., & Agarwal, T. (2013). Pilgrimage satisfaction of religious event: An empirical study. In *South Asian Journal of Tourism and Heritage* (pp. 6(2), 76–91).
- Reddy, G. K. (2024). Rejuvenation Of Religious Sites for Boosting Tourism. In *Ministry of Tourism (Government of India)*. <https://tourism.gov.in/sites/default/files/2024-02/usq.382%20for%2005.02.2024.pdf>
- Rinschede, G. (1992). Forms of religious tourism. *Annals of Tourism Research*, 19(1), 51–67.  
[https://doi.org/10.1016/0160-7383\(92\)90106-y](https://doi.org/10.1016/0160-7383(92)90106-y)
- Rivera, M. A., Shani, A., & Severt, D. (2009). Perceptions of service attributes in a religious theme site: an importance–satisfaction analysis. *Journal of Heritage Tourism*, 4(3), 227–243.  
<https://doi.org/10.1080/17438730902822939>
- Romadhoni, R., Santoso, B., Hermawan, H., & Qomariah, N. (2020). Important Performance Analysis for Measuring Customer Satisfaction for Umrah Services Bureau. *International Journal of Economics and Management Studies*, 7(4), 55–62. <https://doi.org/10.14445/23939125/ijems-v7i4p110>
- Ryan, C. (2007). *Battlefield Tourism*. Routledge.
- Sadibekova, B., Makhmudova, A., Abdukhamidov, S., & Mukhamadiev, A. (2021). *The main forms of pilgrimage tourism*. Central Asian Journal Of Innovations On Tourism Management And Finance 2(2), 84–88.
- Saravanan, R., & Rao, V. (2007). Measurement of service quality from the customer's perspective – an empirical study. *Total Quality Management & Business Excellence*, 18, 435–449.  
<https://doi.org/10.1080/14783360701231872>
- Sati, V. P. (2018). Carrying capacity analysis and destination development: a case study of Gangotri tourists/pilgrims' circuit in the Himalaya. *Asia Pacific Journal of Tourism Research*, 23(3), 312–322.  
<https://doi.org/10.1080/10941665.2018.1433220>
- Shah, S. (2013). A sociology lens of pilgrimage tourism in Kashmir valley: a case of holy Amarnath pilgrimage. *Tibet Journal*, 38(3-4), 57–85.
- Sivkishen. (2014). *Kingdom of shiva*. Partridge India.
- Timothy, D. J., & Olsen, D. H. (2006). *Tourism, Religion, and Spiritual Journeys*. Routledge.  
<https://doi.org/10.4324/9780203001073>
- Tripathi, G., Choudhary, H., & Agrawal, M. (2010). What do the tourists want? The case of the Golden Temple, Amritsar. *Worldwide Hospitality and Tourism Themes*, 2, 494–506.  
<https://doi.org/10.1108/17554211011090111>
- Tsitsiloni, M., Grigoroudis, E., & Zopounidis, C. (2012). Service Quality Evaluation in the Tourism Industry: A SWOT Analysis Approach. *Optimization Theory, Decision Making, and Operations Research Applications*, 249–266. [https://doi.org/10.1007/978-1-4614-5134-1\\_18](https://doi.org/10.1007/978-1-4614-5134-1_18)
- Verma, M., & Sarangi, P. (2019). Modeling attributes of religious tourism: A study of Kumbh Mela, India. *Journal of Convention & Event Tourism*, 20(4), 296–324.  
<https://doi.org/10.1080/15470148.2019.1652124>

- Vidhya, K., & Selvam, Dr. V. (2020). Analysing The Impact of Service Quality on Pilgrims Tourists in Vellore District Using Factors Analysis. *International Journal of Management (IJM)*, 11(8), 660–670. <https://doi.org/10.34218/IJM.11.8.2020.060>
- Vijayanand, S. (2012). Pilgrimage tourism management issues and challenges with reference to Tamil Nadu. *Asian Journal of Multidimensional Research*, 1(2), 112-127.
- VukonićB. (1996). *Tourism and religion*. Pergamon.
- Weidenfeld, A. (2006). Religious needs in the hospitality industry. *Tourism and Hospitality Research*, 6(2), 143–159. <https://doi.org/10.1057/palgrave.thr.6040052>