A Study of Factors Influencing Tourism Service Quality: A Comprehensive Review and Analysis

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Abstract

This study delves into an in-depth analysis of the intricate factors that shape service quality within tourism destinations situated in the Kashmir Valley. The principal objective of this research is to meticulously scrutinize the diverse elements that wield influence over service quality, with a particular emphasis on the pivotal role played by infrastructure in the delivery of services. To achieve this objective, the research encompasses an empirical verification process that takes into account infrastructure-dependent, independent, and other pertinent factors.

The nature and extent of these determinants are subjected to rigorous scrutiny at an individual level across five distinct destinations, employing the robust Multiple Linear Regression Model. The Service Quality Index, serving as the dependent variable, amalgamates the aggregate value of indices across multiple dimensions. Concurrently, factors influencing service quality are meticulously treated as explanatory variables in the analytical framework.

The hypotheses put forth in this research are validated, affirming statistically significant results. Intriguingly, the discerned significance predominantly aligns with the factors reliant on infrastructure, rather than those operating independently of it. Furthermore, the study reveals a lack of significant influence exerted by industry-related factors on service quality within tourism destinations in the Kashmir Valley.

In light of these findings, a strategic recommendation emerges for policymakers to redirect their focus towards the enhancement of infrastructure-dependent services as opposed to other service dimensions. The indispensability of improving tourism infrastructure is underscored as a pivotal means to elevate overall service quality within the context of tourism destinations in the Kashmir Valley. This nuanced approach is integral to formulating effective policies geared towards elevating the tourism experience and bolstering the region's competitiveness in the global tourism landscape.

Key Words: Service Quality, Tourist Spots, Determinant Factors, and Policy Perspectives

1. Introduction

Tourism services play a pivotal role in driving tourism growth, fostering satisfaction, and cultivating visitor loyalty to destinations (George, 2008; Al-Ababneh, 2013; Haghkhah et al., 2011; Titu, Raulea, and Stefn, 2016; Ying, Ahmad, and Khalifah, 2016, p. 455; Chand and Ashish, 2014, p. 9). Tourism services refer to "road and transport services, boarding and lodging services, services offered by markets and malls, information and communication services, electricity services, water supply and sanitation services, environmental services, financial services, health care services, tourist information services, sports and entertainment services and security services" available at destinations in a separate or combined manner. Quality services exert a profound influence on tourists, encouraging repeated visits and contributing to the enhancement of destination images, ultimately attracting a greater number of visitors.

The imperative of superior service quality is underscored by its role in augmenting the performance of destinations, mediating the connection between destination image, pleasure, and tourist allegiance (Augustyn and Samuel, 1998, p. 71-75; Akroush et al., 2016; Latiffa and Siew, 2015, p. 67-94). Quality services not only provide tourists with memorable experiences but also contribute significantly to the achievement of desired goals for both tourists and service providers (Bhat, 2012, p. 328; Bauer, 2014, p.55). Hence, a vigilant approach by service providers in delivering quality services is crucial for the growth of destinations.

Ensuring the continuity of quality services poses a considerable challenge, with building credibility among users being a pivotal factor. Service quality serves as a predictor of tourist satisfaction and the likelihood of revisitation (Basiony, Alaa, and Sayed, 2014, p. 10), highlighting the intricate interlinkages between service quality and the tourism industry. Conversely, substandard services, poor quality, and untimely delivery have detrimental effects on the reputation of destinations, leading to a decrease in tourism demand. Moreover, low-quality services contribute to unhygienic conditions, environmental degradation, and irreversible damage to tourism products (Bashir and Goswami, 2016; Kaul and Gupta, 2009; Yousf and Ali, 2018).

The foundation of the tourism sector lies in services such as road and transport, boarding and lodging, public utilities, sanitation, sewage, and solid waste management (Sonja and Ivana, 2016: 290; United Nations ESCAP, 2006; Satnalika, 2012). Additionally, services encompassing information and communication, healthcare, banking, sports, entertainment, and security are vital for visitor satisfaction. Notably, the quality of one service significantly influences

others, emphasizing the imperative of upholding service quality across all aspects for the seamless operation of the tourism sector.

For the provision of services, infrastructure plays a crucial role in supporting the delivery of various services, with the level of dependency varying based on the nature of the services. While most services are either solely or partially dependent on infrastructure for efficient functioning, a few operate independently of infrastructure facilities. This underscores the instrumental contribution of infrastructure to service delivery and quality, as observed by Sanser, Yiu, and Filature (2015). Shortages and inefficiencies in infrastructure are reflected in service delivery and quality, presenting challenges to environmental sustainability.

Deficiencies stemming from infrastructure shortcomings and the consequences of poor service quality gradually erode the environment's assimilative capacity. The regular occurrence of such practices adversely impacts environmental quality and diminishes the attractiveness of tourism products. Inadequate infrastructure facilities and poor performance affect the air quality, causing ineffective solid and sewage management and eroding the destination's sustainability (Luo, 2018).Consequently, sustainability issues emerge at destinations, adversely affecting the livelihoods of hosts dependent on tourism and obstruct economic development in the tourism regions.

Therefore, understanding the intricate relationship between infrastructure and services is vital for comprehending the dynamics of tourism development at destinations. Understanding the mutual influence of both infrastructure-dependent and independent services emphasizes the need for a comprehensive study that explores the quality aspects of these services.

In context of Kashmir Valley, an analysis of factors influencing tourism service quality is significant. Such an analysis will provide valuable insights into areas of fragility, enabling informed policy decisions for the sustainable development of tourism in the region.

1.1. Theoretical Framework

The empirical studies carried out signified the role of infrastructure in development. It is affirmed that the significant quantity, quality and maintenance of infrastructure positively enhance the productive capacity of tourism industry. Scholars worked in this field verified the role of infrastructure in the up-gradation of service delivery and its prominent character to reduce the costs of services. Under the umbrella of "A Theory of Infrastructure Led Development," Richard Agenor (2006) significantly confirmed that infrastructure supports the functioning

of services and is therefore considered a prerequisite to ensure quality services and growth. Therefore, investment in quality infrastructure affects the standard of infrastructure dependent services and plays a significant role in expanding productive industries.

Agénor (2005) and Agénor, Nabli and Yousef (2005) inferred that better quality infrastructure is crucial for ensuring quality services. United Nations (2017) stated infrastructure and services as critical determinants of sustainable development. Infrastructure and its positive support towards the upsurge of service quality are essential underpinnings to most forms of modern tourism development (Williams, 1998; Agénor and Monteil, 2008). Therefore, their coordination must be balanced. In the tourism industry, infrastructure is indispensable to ensure stakeholders satisfaction to achieve sustainable benefits by maintaining a standard of tourism services (Samer, Yiu and Filature, 2015: 6; Hidayat et al., 2017). Investment in infrastructure impacts service quality and decreases time preference (Agenor and Blanca, 2006).

Tourism is a services sector industry, and most of the critical services are solely dependent on infrastructure. Consequently, infrastructure and services delivery are highly interconnected and inter-functional. It infers the significance of their interlinkages and joint contribution to continue the functioning of destinations. That is how the infrastructure at the destination influences the service quality and helps tourism development as specified in the existing theories.

In this context, as per the Infrastructure Led Development Theory, spending on the endorsement and upholding of infrastructure yields substantial constructive effects on the service quality and augments the productivity of existing investments in various sectors of the economy (Agénor and Dodson, 2006: 38; Agénor and Yilmaz, 2006: 38).

As a result, the empirical analysis on the role of infrastructure in service quality will testify to the basic tenets of the above-specified arguments and propositions of said theories.

2. Review of Literature

Studies delved into the analysis of services, focusing on dimensions such as intangibility, tangibility, inseparability, perishability, and heterogeneity (Berry, 1983; Kinsley, 1979; Rathmell, 1966; Regan, 1963; Sasser and Stephen, 1978; Zeithmal et al., 1985). These dimensions have been utilized to analyze the functioning of services in different sectors, as evidenced by studies commissioned by the Government of India in 1986.

World Tourism Organization (2009) defined tourism services as business, financial, tour and travel, recreation, cultural, and other services. The definition did not encompass critical services such as information and communication, security, health, environmental, and tourism information services. Similarly, United Nations World Tourism Organization (2017) provided a definition that mirrored the WTO but omitted essential services.

The assessment of service relies on quality measurement strategies (Fache, 2000), leading to studies proposing an analysis of the correlation between service quality and tourism development (Haghkhah et al., 2011). Various models, including the service quality model, service performance model, and performance analysis approach, have been applied with nuanced differences in approach but consistent results (Hudson and Hudson, 2004). Some studies have introduced new dimensions to service quality measurement by developing variables through interactions with stakeholders (Narayan and Chandrasekaran, 2009; Eraqi, 2007).

The service quality model, commonly used to analyze the disparity between expectations and experiences, reveals gaps between tourists' expectations and actual experiences (Rajan, 2006; Bhat, 2012). Yusof et al. (2014) utilized the service quality model to study the quality of eco-system services, shedding light on tourists' expectations in the tourism industry. Other studies examined tourists' satisfaction through perceptions, with the development of indices for measurement and identification of reasons for quality deterioration (Naseer and Showket, 2013; Munhurrun and Naidoo, 2016).

While some studies explored the relationship between service quality and tourist satisfaction, demonstrating a positive association (Basiony, Alla, and Sayed, 2014; Ragavan, Subramanian, and Sharif, 2014), others delved into the impact of service quality on service providers' quality of life, employing empirical investigation and structural equation techniques (Neal, Uysal, and Sirgy, 2007). In case of tourism, service quality is analysed by attributes and dimensions (Yusof, et. al., 2014; Bhat 2012). On the other hand, Eraqi (2007), Hong Jang (2013) and Fache (2000) studied the service quality by indicators. With this background, Narayan and Chandrasekaran (2009) developed indicator-based service quality measurement framework in Indian context. Infrastructure is prerequisite for service delivery and better performance. Whereas studies of tourism service and quality measurement didn't explore the influence of factors of infrastructure in service quality.

2.1 Research Gap

Core studies on service quality measurement and links with tourist satisfaction have been explored, yet there is a notable absence of analysis on the factors determining service quality and it's interlinkages with infrastructure.

Studies analyzing the role of infrastructure in service quality remain scarce, with only a few focusing on the influence of infrastructure in tourism services, treating it as one of the variables in their analyses. A notable exception is a survey conducted by Sanser, Yiu, and Filature (2015), providing empirical evidence of inter-linkages between infrastructure and service quality. Consequently, there is a pressing need for new analyses that explore the trade-off between infrastructure and service quality, particularly concerning infrastructure-independent services, dependent services, and overall service quality.

In light of these research gaps, there is a compelling need to renovate analyses related to factors influencing tourism service quality. These renewed analyses should encompass multiple sub-sectors and consider the decisive role of infrastructure in determining service quality at the destination level. Therefore, the reviewed studies assure literature gaps in the influence of infrastructure on service quality. It necessitates the analysis of factors influencing service quality and their magnitude to bring variation in service quality. With this background, the hypothesis framed as "tourism infrastructure significantly influences the service quality among the determining factors" was placed for the test and results.

3. **Research Methodology**

The contemporary research endeavour engaged a diverse array of stakeholders, meticulously categorizing the sample groups into distinct entities, namely tourists (both domestic and foreign), the host community, and service providers encompassing both governmental and private entities. Recognizing the critical importance of a robust and representative dataset, the study diligently sought to gather a sufficient sample size from each of these stakeholder groups to facilitate comprehensive analyses.

In order to achieve the requisite sample size, a meticulously planned survey methodology was adopted, aiming to collect a total of 450 observations, as outlined in Table 1. This targeted approach ensured an inclusive representation of perspectives from tourists, the host community, and service providers. To elaborate on the sampling strategy, a structured interview schedule was employed, enabling the collection of 30 observations from each distinct sample group at the chosen destinations in the year 2021-2022.

The choice of utilizing an interview schedule added a layer of methodological rigor to the data collection process. The randomness in the selection of observations within each sample group served to enhance the study's credibility and ensure that diverse perspectives were systematically incorporated. This meticulous approach aimed not only to gather a sufficiently large dataset but also to provide a nuanced understanding of the distinct viewpoints held by tourists, the host community, and service providers.

It is imperative to underscore that the selected sample size, distributed across these diverse stakeholder groups, forms the foundation for robust analyses that delve into the multifaceted dynamics of the relationship between tourism services, service quality, and the role of infrastructure. This methodologically sound approach not only enhances the reliability of the findings but also contributes to the generalizability of the research outcomes, thereby offering valuable insights for both academic and practical applications in the realm of tourism studies.

3.1 Recruitment Process

To recruit and contact the 450 participants for the study, a systematic and structured approach was adopted. Here's a detailed breakdown of the recruitment process and participation rate:

3.1.1 Sampling Strategy:

A stratified sampling approach was employed to ensure a balanced representation from each stakeholder group. Each group was identified as critical to the understanding of tourism service quality and infrastructure impact. The goal was to gather a total of 450 observations, with 30 participants from each of the distinct sample groups. This resulted in 150 participants from each category.

Table 1. Particulars of Sampling Design of the Study

S.No.	Destinations	Sample Group			All (N = 450)
		Tourists (n = 150)	Residents (n=150)	Service Providers (n=150)	
1.	Srinagar	30	30	30	90
2.	Pahalgam	30	30	30	90
3.	Kokernag	30	30	30	90
4.	Gulmarg	30	30	30	90
5.	Yousmarg	30	30	30	90
Total		**150**	**150**	**150**	**450**

3.1.2 Survey Methodology:

A structured interview schedule was developed, which provided a consistent framework for data collection. This method not only standardized the questions asked but also ensured comprehensive coverage of relevant topics related to tourism services and infrastructure. Interviews were conducted at selected destinations during the years 2021-2022 to capture timely and relevant data.

3.1.3 Participant Recruitment:

Tourists: Participants were approached at popular tourist sites, hotels, and travel hubs, utilizing random sampling. Informational flyers and on-the-spot invitations encouraged participation, ensuring a diverse range of tourists was included.

Host Community: Local community members were contacted directly at their respective houses. Engagement with community leaders facilitated outreach and encouraged participation.

Service Providers: Representatives from governmental and private tourism-related businesses were contacted directly at their business places. Informational sessions were organized to explain the study's objectives and the importance of their inputs.

3.1.4 Data Collection:

The interviews were conducted face-to-face, depending on the availability and preference of participants. This flexibility helped maximize participation. Informed consent was obtained from all participants; ensuring ethical standards were maintained throughout the process. The targeted sample size was 450 participants across the three stakeholder groups, with each group contributing 150 participants. All efforts were successful, and the participation rate was 100% for the targeted sample size, meaning that all contacted individuals from each group agreed to participate.

3.2 Multiple Linear Regression Model

The formulated hypothesis, "tourism infrastructure significantly influences the service quality among the determining factors," was tested to check the results. The individual testing of the nature and extent of determinants was conducted for five destinations applying Multiple Linear Regression Model.

3.2.1 Framework of the Model

The application of the Multiple Regression Model involved selecting the Tourism Service Quality Index as the dependent variable. This variable proves suitable for representing the overall service quality of the destination, encompassing numerous services. The explanatory variables were categorized into the performance of infrastructure-dependent services, infrastructure-independent services, and the tourism industry.

Infrastructure-dependent factors encompassed index values related to road and vehicles, hotels, public utilities, health, banking, and sports and entertainment services. Conversely, infrastructure-independent factors included index values associated with cleanliness, information, guest services, and security behaviour. The tourism industry category incorporated variables such as price level, destination management, and tourism products. A concise description of these variables is presented in Table 2.

Table 2. Determinants of Service Quality: Description of Variables

Sl. No.	Variables	Type and Expected Sign	Justification and Relevance
A	**Infrastructure Dependent Factors**		
1.	Road and Transport	C/+	Tourist satisfaction and relaxed journey is associated to service quality of destinations.
2.	Hotels	C/+	Hotel services influence customer experiences, loyalty, revisit and pleasure of visitors.
3.	Public Utilities	C/+	Performance of public utilities is vital to influence the competitiveness and attraction of destinations.
4.	Health	C/+	Healthcare is essential for every tourism destination for secure tourism.
5.	Banking	C/+	Banks and ATMs are obligatory to satisfy the monetary needs of tourism stakeholders.
6.	Sports and Entertainment	C/+	Entertainment creations and services are crucial to attract tourists towards the destinations.

B	Infrastructure Independent Factors		
7	Cleanliness	C/+	Cleanliness is vital to ensure satisfaction of tourists and linked with the service quality.
8	Information	C/+	Information is a bridge in between the service providers and users.
9	Guiding Services	C/+	It is indispensable to guide tourists towards the destinations and the products contained.
10	Security Behaviour	C/+	Security services offers stability and peace in the destination and helps performance of tourism.
C	Factors of Industry		
11	Price Level	C/+	Normal prices render positive intention and vice-versa in case of exorbitant rates.
12	Destination Management	C/+	Proper management is vital to ensure tourist satisfaction and standard of tourism services.
13	Tourism Products	C/+	Tourism products have a positive relation with the satisfaction and loyalty.

Note: "C" denotes the constant nature of explanatory variables with a positive sign

Multi-co linearity and related validations had completed for the model specification.

$$\text{TSQ} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 +$$

$$\beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \mu$$

Where,

TSQ = Tourism Service Quality (Dependent Variable)

$X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12, \text{ and }} X_{13}$ are independent variables.

In the designated model, the estimated regression coefficients (βs) delineate the exquisite impact of each independent variable on service quality across various destinations, including the Kashmir Valley. The adjusted coefficient of

multiple determinations ($\bar{R}^2$) meticulously scrutinizes the individual contributions of independent variables to the service quality of the random variable. The overall fitness of the fitted Multiple Linear Regression Model has been rigorously validated through the 'F' test. Moreover, the discernible influence of each independent factor on the random variable's service quality has been unequivocally affirmed through the application of the student's't' test.

4. **Results and Discussions**

The outcomes pertaining to the determinants of service quality are summarized in Table 5. The values of $\bar{R}^2$ (multiple determination) for Srinagar (0.82), Pahalgam (0.76), Kokernag (0.75), Gulmarg (0.76), and Yusmarg (0.88) demonstrate statistical significance at both $p<0.01$ and $p<0.05$. This substantiates that the variations in service quality are significantly explicable through the explanatory variables incorporated in the model. The comprehensive adequacy of the model is assessed through the derived 'F' test values. Notably, 'F' values for Srinagar (33.04), Pahalgam (22.05), Kokernag (21.41), Gulmarg (23.19), and Yusmarg (49.24) are all statistically significant, affirming the suitability of the fitted multiple regression model. The results are discussed within the framework of infrastructure, both dependent and independent, and the industry context.

4.1. A Comprehensive Overview of Infrastructure Related Factors

The infrastructure dependent factors examined in this study encompass various elements deeply rooted in the infrastructure of tourist destinations. These factors include the quality of roads and vehicles, hotel services, public utilities, healthcare facilities, banking services, and sports and entertainment amenities. The condition of roads and vehicles, along with the quality of hotel services, directly impacts the overall service quality perceived by visitors. Public utility services, including essential services such as electricity, sanitation, and information and communication technology (ICT), play a crucial role in ensuring a positive experience for tourists. Additionally, the availability and quality of healthcare services, banking services, and sports and entertainment facilities contribute significantly to visitors' satisfaction.

The Multiple Linear Regression Model, as presented in Table 5, affirms the substantial influence of road and vehicle conditions on service quality. Notably, the impact varies across destinations, with Srinagar exhibiting the highest influence, followed by Gulmarg, Pahalgam, Kokernag, and Yusmarg. This suggests that destinations with well-established road and transportation infrastructure attract more tourists, emphasizing the importance of continuous improvement in these areas to enhance service quality.

Furthermore, the study identifies variations in the impact of hotel-related factors on service quality. Notably, Pahalgam, Kokernag, and Yusmarg show significant influence, with Kokernag standing out as the destination most affected. This underscores the potential positive impact of improving boarding and lodging facilities at these locations. Respondents also highlighted concerns regarding hotel charges, food prices, and other services, suggesting areas for improvement to enhance service quality in these destinations.

Public utilities emerge as a critical factor influencing service quality across all destinations. The regression results confirm the positive influence of public utility factors, with Kokernag experiencing the highest impact, followed by Srinagar and other destinations. Issues raised by respondents, such as ICT issues, electricity interruptions, and deficient sanitation services, underscore the need for improvements in these areas to positively impact service quality.

Healthcare-related factors significantly influence service quality, with Gulmarg exhibiting the most substantial impact, followed by Yusmarg and Srinagar. The study reveals a lack of advanced healthcare services in most destinations, indicating the necessity for further upgrades to ensure adequate and high-quality healthcare services.

Banking services, while generally insufficient, exhibit variations across destinations. Some locations have better access to banking services, including ATMs, highlighting the potential positive impact of further improvements in these areas on overall service quality.

The study also notes a scarcity of sports and entertainment amenities across the entire region. A positive change in these factors is identified as crucial for enhancing service quality, particularly in Srinagar, Kokernag, and Gulmarg. The findings underscore the paramount importance of continuous improvement in infrastructure-dependent factors to enhance service quality across tourist destinations. Addressing specific issues related to roads, hotels, public utilities, healthcare, banking, and sports and entertainment facilities is essential for meeting the diverse needs and expectations of tourists. The study provides valuable insights for policymakers and stakeholders to guide targeted interventions and investments in tourism infrastructure, thereby contributing to the overall enhancement of service quality in the region.

Table 3. Descriptive Statistics of Multiple Regression Models: Factors Determining Service Quality

Details	N	Srinagar (n =90)		Pahalgam (n =90)		Kokernag (n =90)		Gulmarg (n =90)		Yusmarg (n =90)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Service Quality Index*	90	0.56	0.11	0.57	0.11	0.60	0.10	0.58	0.10	0.46	0.13
Roads and Vehicles	90	0.67	0.17	0.66	0.17	0.65	0.16	0.65	0.17	0.55	0.17
Hotels	90	0.70	0.30	0.67	0.30	0.58	0.29	0.75	0.23	0.48	0.30
Public utilities	90	0.44	0.26	0.54	0.25	0.65	0.26	0.53	0.25	0.35	0.29
Health	90	0.47	0.33	0.41	0.31	0.71	0.26	0.55	0.28	0.36	0.36
Banking	90	0.69	0.29	0.69	0.30	0.70	0.26	0.71	0.29	0.42	0.37
Sports and Entertainment	90	0.66	0.33	0.71	0.32	0.73	0.29	0.48	0.35	0.53	0.36
Cleanliness	90	0.62	0.27	0.59	0.29	0.68	0.24	0.67	0.24	0.53	0.28
Information	90	0.62	0.29	0.61	0.36	0.54	0.37	0.70	0.27	0.54	0.33
Guiding Services	90	0.53	0.28	0.55	0.33	0.52	0.28	0.64	0.26	0.33	0.24
Security Behaviour	90	0.58	0.28	0.65	0.29	0.61	0.23	0.69	0.24	0.51	0.24
Price Level	90	0.75	0.32	0.76	0.32	0.70	0.34	0.73	0.33	0.72	0.36
Destination Management	90	0.67	0.33	0.62	0.35	0.69	0.36	0.73	0.29	0.59	0.40
Tourism Products	90	0.70	0.28	0.65	0.29	0.52	0.31	0.72	0.26	0.59	0.35

Note: * Represents dependent variable

Table 4. Model Summary of Multiple Regression Models: Determining Factors of Service Quality

Details	R	R^2	Adjusted R^2	SE	Change Statistics					Durbin Watson
					R^2 Change	F Change	df1	df2	Sig. F Change	
Srinagar	0.922	0.85	0.824	0.04774	0.85	33.042	13	76	<.001	2.238
Pahalgam	0.889	0.79	0.755	0.05474	0.79	22.051	13	76	<.001	1.564
Kokernag	0.886	0.786	0.749	0.04929	0.786	21.417	13	76	<.001	2.120
Gulmarg	0.894	0.799	0.764	0.04984	0.799	23.187	13	76	<.001	2.234
Yusmarg	0.945	0.894	0.876	0.0464	0.894	49.244	13	76	<.001	2.060

Table 5. Factors Influencing Service Quality: Multiple Regression Model

Sl. No.	Details	Srinagar (n =90)	Pahalgam (n =90)	Kokernag (n =90)	Gulmarg (n =90)	Yusmarg (n =90)	Variance Inflation Factor (VIF)
Constant		0.09** (2.59)	0.10* (3.11)	0.11* (2.68)	0.11* (2.94)	0.14* (5.81)	
A. Infrastructure Dependent Factors							
1	Roads and Vehicles	0.20* (6.22)	0.19* (4.68)	0.16* (3.75)	0.21* (5.40)	0.10* (2.77)	1.256
2	Hotels	0.01 (0.64)	0.06* (2.73)	0.06* (2.87)	0.01 (0.35)	0.06* (2.40)	1.433
3	Public utilities	0.14* (5.61)	0.15* (4.55)	0.17* (6.35)	0.09* (3.59)	0.10* (4.19)	1.355
4	Health	0.10* (4.66)	0.07* (3.49)	0.12* (4.55)	0.14* (6.64)	0.09* (4.98)	1.244
5	Banking	0.11* (5.94)	0.04 (1.91)	0.09* (3.05)	0.06* (2.49)	0.09* (3.95)	1.752
6	Sports and Entertainment	0.06* (2.76)	0.04 (1.69)	0.05** (2.26)	0.05* (2.78)	0.04 (1.81)	1.366
B. Infrastructure Independent Factors							
7	Cleanliness	0.00 (0.02)	0.07* (3.20)	0.01 (0.32)	0.04 (1.50)	0.04 (1.51)	1.234
8	Information	0.05** (2.22)	0.02 (0.91)	0.03 (1.40)	0.05* (2.55)	0.02 (0.85)	1.314
9	Guiding Services	0.06* (2.83)	0.05* (2.53)	0.02 (0.82)	0.03 (1.30)	0.02 (0.85)	1.447
10	Security Behaviour	0.07* (3.75)	0.08* (3.49)	0.06** (2.03)	0.06* (2.48)	0.06** (2.25)	1.189
C. Industry Factors							
11	Price Level	0.03 (1.74)	0.00 (0.19)	0.01 (0.47)	0.02 (1.01)	0.02 (1.40)	1.206
12	Destination Management	0.03 (1.79)	0.03 (1.50)	0.01 (0.41)	0.03 (1.52)	0.02 (1.29)	1.173
13	Tourism Products	0.02 (0.79)	0.03 (1.28)	0.02 (0.75)	0.00 (0.02)	0.04 (1.90)	1.495
Adjusted R Square		0.82	0.76	0.75	0.76	0.88	
F-Value		33.04*	22.05*	21.41*	23.19*	49.24*	

Note: Figures in Parentheses represents' value, * and ** represent 1 and 5 per cent level

4.1.1. Infrastructure Independent Factors

The services categorized under the umbrella of infrastructure-independent aspects are not directly linked to the operational aspects of the infrastructure. Nonetheless, any alterations in these facets can significantly impact the quality of services at various destinations. These encompass cleanliness, information provision, the services rendered by travel guides, and the conduct of security personnel. The enhancement of these factors positively influences service quality, while their deterioration can have adverse effects.

Cleanliness is a paramount consideration for tourists, and its absence can lead to dissatisfaction and a negative perception of tourist spots. A survey indicates that cleanliness issues are more prevalent in Kokernag, attributed to an insufficient number of dustbins, treatment plants, and waste-carrying vehicles, resulting in unhygienic conditions. Therefore, prioritizing cleanliness is imperative for Kokernag to maintain high service quality. This positive correlation between cleanliness and service quality is supported by the results of multiple linear regression models, as depicted in table 6.2.2. However, cleanliness does not exert a significant influence on service quality in other destinations.

Information plays a crucial role in guiding visitors to tourism spots. High-quality information, effective guidance, and positive behavior contribute positively to tourist satisfaction, loyalty, and the likelihood of future visits. These elements are integral to ensuring superior service quality and visitor satisfaction. Nevertheless, the impact of information is confirmed to be significant in Srinagar and Gulmarg but does not hold the same weight in other destinations. Similarly, the influence of guide services is significant for Srinagar but inconsequential for Pahalgam and other destinations.

The tourism sector's success is heavily reliant on peaceful conditions, free from pandemics and wars. Therefore, security is indispensable to protect stakeholders from threats, crimes, and robberies. In the Kashmir Valley, where such issues are widespread, security factors significantly affect the quality of tourism services at destinations. The behavior of security personnel is crucial in ensuring tourist satisfaction and encouraging repeat visits.

Soft behavior, hospitality, and respect toward visitors are pivotal for tourist satisfaction and future loyalty to destinations. Conversely, rude behavior, disrespect, and poor hospitality by security personnel contribute to the deterioration of service quality. The results underscore the importance of positive security behavior at each destination. A positive change in this aspect contributes favourably, while its absence has a detrimental impact. However, the extent of

this influence varies among destinations and should be integrated into the overarching policy framework.

4.1.2. Other Factors of Tourism Industry

In addition to examining both infrastructure-dependent and independent factors, our analysis extended to encompass other crucial determinants within the tourism industry, namely the price level, destination management practices, and the array of tourism products offered. These elements were carefully scrutinized to gauge their impact on service quality at various tourism destinations within the Kashmir Valley.

Upon subjecting these determinants to rigorous scrutiny through multiple linear regression models, the findings revealed that they held no statistically significant influence on service quality at the aforementioned tourism destinations. In essence, the price level, destination management strategies, and the variety of tourism products available were deemed inconsequential in driving notable variations in the overall quality of services provided.

This implies that alterations in any of these determinants, be it pricing structures, destination management approaches, or the diversity of tourism products offered, did not result in discernible differences in the perceived quality of services. Consequently, it underscores the resilience of the existing service quality dynamics in the Kashmir Valley, indicating that these particular factors do not play a pivotal role in shaping the overall service experience for tourists.

This nuanced understanding offers valuable insights into the unique contextual intricacies of the tourism landscape in the Kashmir Valley, shedding light on the specific determinants that do not significantly contribute to or alter the prevailing service quality standards. As such, the focus may need to shift towards other factors or areas where interventions could yield more palpable enhancements in the overall tourism experience.

5. Conclusions and Recommendations

Ensuring high service quality is imperative for achieving tourist satisfaction, shaping destination image, and fostering loyalty for future visits. The repercussions of poor service quality extend beyond mere dissatisfaction, as it tarnishes the overall appeal of tourism spots, resulting in a decline in tourism demand. A significant contributor to this decline is the inadequacy and inferiority of infrastructure, which not only degrades service quality but also amplifies issues and negative externalities associated with destinations.

To mitigate these challenges and enhance service delivery, there is an unequivocal need for an upgrade in infrastructure. Such improvements play a pivotal role in supporting the efficient provision of services, addressing existing problems, and minimizing negative impacts on destinations.

The analysis of factors influencing service quality has revealed distinct categories, namely infrastructure-dependent, independent, and those derived from the broader tourism industry. A noteworthy observation during the analysis is that factors deemed significant in influencing service quality are predominantly either infrastructure-dependent or independent. Conversely, factors originating from the broader industry do not exhibit a discernible positive or negative influence. This underscores the pivotal role of infrastructure in determining service quality.

A thorough examination of these findings supports the alternative hypothesis that posits "tourism infrastructure significantly influences service quality among the determinants." Consequently, policymakers are urged to prioritize initiatives aimed at enhancing the status of infrastructure-dependent services over other aspects. The crux of this recommendation lies in the understanding that improving tourism infrastructure is crucial for elevating service quality at destinations, particularly in the Kashmir Valley.

To realize this goal, various tourism services necessitate upgrades in quality assurance and infrastructure. The empirical analysis reinforces the theoretical argument that a positive correlation exists between infrastructure, and the overall quality of services within the tourism industry and other related sectors.

In conclusion, the empirical evidence underscores the critical role of infrastructure related factors in shaping service quality in the tourism sector. Policymakers must prioritize and invest in infrastructure related services to ensure the sustained appeal of tourism destinations and, by extension, the satisfaction and loyalty of visitors.

6. Theoretical Implications

The theoretical implications of the study " A Study of Factors Influencing Tourism Service Quality: A Comprehensive Review and Analysis" underscore the critical interdependence between infrastructure and the quality of services in the tourism industry. This analysis builds upon existing frameworks, particularly the "Theory of Infrastructure Led Development" proposed by Richard Agénor and others, emphasizing the necessity of quality infrastructure as a precursor to enhancing service delivery.

The findings affirm that robust infrastructure directly correlates with improved service quality in tourism. This supports Agénor's assertion that infrastructure is essential for the effective functioning of services, thereby establishing it as a fundamental pillar of tourism service delivery. The theoretical implication here is that policymakers must prioritize infrastructure investments to elevate the overall quality of tourism services, which in turn could lead to sustainable development outcomes.

The analysis highlights the inherent interconnectedness between infrastructure and service delivery within the tourism sector. This relationship suggests a need for an integrated approach to development, where both infrastructure and service enhancements are coordinated. The theoretical implication is that tourism development strategies should not view infrastructure and service quality in isolation but rather as mutually reinforcing elements that collectively enhance tourist experiences and destination viability.

The study elucidates that investment in quality infrastructure has far-reaching implications for productivity across various sectors, particularly tourism. This aligns with Agénor's propositions that improved infrastructure reduces service delivery costs and enhances productivity. The theoretical implication here is that strategic investment in infrastructure can be seen as a catalyst for broader economic growth, reinforcing the argument that the tourism sector is a critical player in national economic strategies.

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