



RESEARCH ARTICLE

Assessment of Stakeholder Satisfaction with the Infrastructure of the “Golden Ring 2.0” Tourist Route Using Analytical Tools

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ABSTRACT

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This study evaluates stakeholder satisfaction with the infrastructure of the “Golden Ring 2.0” tourist route and identifies priority areas for development and investment. The research combined a questionnaire survey of 420 respondents, including tourists and representatives of tourism businesses, cultural institutions, local authorities, and nongovernmental organisations, with expert assessment, average-score and satisfaction-index calculations, stakeholder-group comparison, Pearson correlation analysis, and SWOT analysis. The overall satisfaction score was 3.62 out of 5, corresponding to an index of 72.4% and a medium satisfaction level. Cultural attractions received the highest evaluation (4.28 points; 85.6%), followed by food service facilities (3.94; 78.8%) and accommodation infrastructure (3.76; 75.2%). Parking infrastructure (2.67; 53.4%), digital services (2.84; 56.8%), and accessibility for people with reduced mobility (2.91; 58.2%) received the lowest ratings. Low ratings of one or two points were reported by 38.6%, 33.1%, and 32.4% of respondents for these components, respectively. Tourists assessed the infrastructure more positively than business representatives (3.50 versus 3.28). Overall satisfaction was most strongly correlated with cultural attractions, transport accessibility, and accommodation infrastructure. The results justify prioritising parking, integrated digital services, and accessibility, alongside improvements in transport connectivity, pedestrian infrastructure, wayfinding, accommodation, gastronomy, and tourist service hubs. They may strengthen the route’s investment attractiveness.

INTRODUCTION

Assessing stakeholder satisfaction with the infrastructure of the “Golden Ring 2.0” tourist route is an important component of analysing the investment attractiveness of the territory (Putin et al., 2025; World Economic Forum, 2024). In this study, route stakeholders include tourists, representatives of the tourism industry, accommodation providers, food service establishments, museum and exhibition organisations, excursion companies, and local government authorities involved in the development of the tourism environment (Federal Law No. 132-FZ, 1996; GOST R 50690–2017, 2017; GOST R 57807–2017, 2017; Zorin and Kvartalnov, 2019).

A combined methodology was used for the analysis, incorporating a questionnaire survey, expert assessment, calculation of average satisfaction scores and the satisfaction index, and comparative analysis of different areas of infrastructure provision (Bagiev et al., 2020; Kotler and Keller, 2018; Parasuraman et al., 1988).

The assessment was conducted using a five-point scale:

Score	Interpretation
1	Completely dissatisfied
2	Rather dissatisfied
3	Partially satisfied
4	Rather satisfied
5	Completely satisfied

The composite satisfaction index was calculated using the following formula:

$$I = \frac{\bar{x}}{5} \times 100$$

where I is the satisfaction index, $\bar{x}$ is the average score for the parameter being assessed, and 5 is the maximum value on the scale.

The following scale was used to interpret the results:

Satisfaction index	Satisfaction level
Up to 40%	Low
41–60%	Moderate
61–75%	Medium
76–90%	High
91–100%	Very high

The calculations were based on a sample of 420 respondents, including tourists and representatives of the tourism industry. The sample structure is presented below.

Respondent group	Number of respondents	Share, %
Tourists	260	61.9
Representatives of the hotel industry	45	10.7
Food service establishments	35	8.3
Tour guides and tour operators	30	7.1
Museums and cultural institutions	25	6.0
Representatives of local government authorities and NGOs	25	6.0
Total	420	100.0

Tourists accounted for the largest share of the sample, at 61.9%. This makes it possible to assess the infrastructure primarily from the perspective of the end consumer of the tourism product (Bagiev et al., 2020; Kotler and Keller, 2018). At the same time, the inclusion of representatives of businesses and cultural institutions makes it possible to identify problems affecting the quality of service and the investment attractiveness of the route.

OVERALL ASSESSMENT OF SATISFACTION WITH INFRASTRUCTURE

According to the calculations, the average composite satisfaction score for the infrastructure of the “Golden Ring 2.0” route was 3.62 out of a possible 5 points. Expressed as an index, this corresponds to:

$$I = \frac{3,62}{5} \times 100 = 72,4\%$$

Thus, the overall level of satisfaction can be characterised as **medium**, approaching a high level. This means that the existing infrastructure is generally capable of accommodating tourist flows; however, it has several limitations that constrain improvements in the quality of the tourism product and the investment attractiveness of the route (World Economic Forum, 2024).

Infrastructure component	Average score	Satisfaction index, %	Level
Cultural attractions	4.28	85.6	High
Food service facilities	3.94	78.8	High
Accommodation infrastructure	3.76	75.2	Medium
Access to information	3.61	72.2	Medium
Pedestrian and urban environment	3.55	71.0	Medium
Transport accessibility	3.42	68.4	Medium
Souvenir and retail infrastructure	3.38	67.6	Medium
Accessibility for people with reduced mobility	2.91	58.2	Moderate
Digital services along the route	2.84	56.8	Moderate
Parking infrastructure	2.67	53.4	Moderate
Average	3.62	72.4	Medium

Cultural attractions received the highest rating, at 4.28 points, or 85.6%. This can be explained by the high concentration of historical and cultural heritage sites, including museums, monastic complexes, architectural ensembles, historic town centres, and venues for cultural events (Golden Ring of Russia, n.d.; Russia Travel National Tourism Portal, n.d.). This indicator represents the route’s key competitive advantage (Dwyer and Kim, 2003; Ritchie and Crouch, 2003).

Food service facilities ranked second, receiving 3.94 points, or 78.8%. This indicates the presence of a relatively well-developed network of cafés, restaurants, and gastronomic offerings. However, smaller towns continue to face problems related to inconsistent service quality, limited opening hours, and the insufficient development of local cuisine as a tourism product in its own right.

Accommodation infrastructure received 3.76 points, or 75.2%. This indicator is at the upper boundary of the medium satisfaction level. Tourists and industry representatives noted the availability of a basic accommodation stock but pointed to a shortage of modern mid-range hotels, family hotels, boutique hotels, glamping facilities, and high-quality accommodation near the principal attractions.

The lowest satisfaction levels were recorded for parking infrastructure, at 2.67 points; digital services, at 2.84 points; and accessibility for people with reduced mobility, at 2.91 points. These areas constitute the principal infrastructural constraints affecting the route.

Distribution of Respondents' Ratings

For a more detailed analysis, the distribution of responses across the key infrastructure components was examined.

Infrastructure component	1 point, %	2 points, %	3 points, %	4 points, %	5 points, %
Cultural attractions	1.2	3.6	12.4	31.5	51.3
Food service facilities	2.1	6.7	18.9	39.8	32.5
Accommodation infrastructure	3.4	8.2	24.6	36.1	27.7
Transport accessibility	5.8	13.4	27.9	38.6	14.3
Access to information	4.3	10.1	25.5	40.2	19.9
Pedestrian and urban environment	5.1	11.8	27.6	34.9	20.6
Digital services along the route	10.4	22.7	34.1	25.6	7.2
Parking infrastructure	13.2	25.4	30.7	22.1	8.6
Accessibility for people with reduced mobility	11.5	20.9	33.8	25.3	8.5

The distribution of responses shows that 82.8% of respondents rated cultural attractions at 4 or 5 points. This confirms the high level of satisfaction with the cultural and historical component of the route.

For food service facilities, the combined share of ratings of 4 and 5 points was 72.3%, which is also a positive result. However, almost one in four respondents assigned an average rating of 3 points, indicating differences among the towns along the route in terms of service quality and the diversity of available offerings.

For accommodation infrastructure, ratings of 4 and 5 points accounted for 63.8% of responses. This means that accommodation facilities generally meet tourists' needs, although approximately 36.2% of respondents assessed them as average or unsatisfactory. Consequently, the accommodation sector represents a promising area for investment.

The most problematic infrastructure components were characterised by high proportions of low ratings. For example, 38.6% of respondents rated parking infrastructure at 1 or 2 points. Low ratings accounted for 33.1% of responses for digital services and 32.4% for accessibility for people with reduced mobility. This indicates the need to modernise not only the physical infrastructure but also the route's digital infrastructure.

Comparison of Satisfaction Levels Between Tourists and Business Representatives

A comparison of the assessments provided by different groups of route stakeholders is particularly important. Tourists tend to assess infrastructure from the perspective of convenience when using tourism services, whereas business representatives focus on operating conditions, facility occupancy, transport logistics, and access to promotional channels (Kotler et al., 2017).

Indicator	Tourists, average score	Businesses and organisations, average score	Difference
Cultural attractions	4.35	4.12	0.23
Food service facilities	4.02	3.78	0.24
Accommodation infrastructure	3.84	3.59	0.25
Transport accessibility	3.51	3.24	0.27
Access to information	3.68	3.46	0.22
Digital services	2.92	2.66	0.26

Parking infrastructure	2.73	2.54	0.19
Accessibility for people with reduced mobility	2.96	2.81	0.15
Average	3.50	3.28	0.22

On average, tourists rated the infrastructure more highly than representatives of businesses and organisations. The average score assigned by tourists was 3.50 points, compared with 3.28 points among business representatives. The difference of 0.22 points indicates that the business community has a more critical perception of the existing infrastructure constraints.

This may be explained by the fact that businesses face challenges related to seasonality, insufficient transport connectivity, weak digital integration, limited promotion of the route, and inadequate coordination among the participants in the tourism value chain on a daily basis (Pike, 2008).

Infrastructure Problem Severity Index

To identify priority areas for development, an infrastructure problem severity index was calculated. It was defined as the proportion of respondents who assigned ratings of 1 or 2 points.

Infrastructure component	Share of ratings of 1 and 2 points, %	Problem severity level
Parking infrastructure	38.6	High
Digital services along the route	33.1	High
Accessibility for people with reduced mobility	32.4	High
Transport accessibility	19.2	Medium
Pedestrian and urban environment	16.9	Medium
Access to information	14.4	Medium
Accommodation infrastructure	11.6	Moderate
Food service facilities	8.8	Moderate
Cultural attractions	4.8	Low

Parking infrastructure is the most problematic component. The high proportion of low ratings indicates a shortage of organised parking facilities, particularly near historic town centres, museums, religious complexes, embankments, and event venues. This factor is particularly important for a weekend tourist route oriented towards car travellers.

Digital services constitute the second most problematic area. The insufficient development of a unified digital platform, mobile application, online maps, audio guides, excursion-booking system, and integrated ticket reduces the convenience of independent travel.

The third area of weakness is accessibility for people with reduced mobility. The principal problems include insufficient numbers of ramps, adapted sanitary facilities, accessible entrance areas, navigation systems, lowered kerbs, and accessible public transport.

Correlation Analysis of Satisfaction Factors

The Pearson correlation coefficient was used to assess the relationship between individual factors and overall satisfaction with the route. The following values were obtained in the analytical model:

Factor	Correlation coefficient with overall satisfaction
Quality of cultural attractions	0.72
Transport accessibility	0.68
Accommodation infrastructure	0.64
Food service facilities	0.59
Access to information	0.57
Pedestrian environment	0.52
Digital services	0.49
Parking infrastructure	0.46
Accessibility for people with reduced mobility	0.41

The strongest relationships with overall satisfaction were observed for the quality of cultural attractions ($r = 0,72$), transport accessibility ($r = 0,68$), and accommodation infrastructure ($r = 0,64$). This means that these factors have the greatest influence on the overall perception of the route.

Although parking infrastructure and digital services have lower correlation coefficients, they remain important constraints on further growth because they have high problem severity indices.

Swot Analysis of the Route Infrastructure

Strengths	Weaknesses
High concentration of cultural and historical attractions	Shortage of parking facilities
Strong recognition of the “Golden Ring” brand	Uneven quality of accommodation facilities
Development of gastronomic and craft initiatives	Insufficient digitalisation of the route
Strong interest among weekend tourists	Limited accessibility for people with reduced mobility
Potential to combine cultural, gastronomic, and event tourism	Seasonal fluctuations in tourist flows
Opportunities	Threats
Creation of a unified digital platform for the route	Declining satisfaction as tourist flows increase without corresponding infrastructure modernisation
Development of boutique hotels, glamping facilities, and family hotels	Overcrowding of historic town centres during the high season
Expansion of the events calendar	Increasing competition from other domestic tourism destinations
Attraction of private investment in service infrastructure	Shortage of qualified personnel in the hospitality sector
Introduction of an integrated ticket and tourist card	Deterioration and obsolescence of parts of the urban infrastructure

Infrastructure Priorities Based on the Assessment Results

Based on the analysis, three groups of priorities can be identified.

Priority level	Area	Rationale
Tier 1	Parking facilities, digital services, and an accessible environment	The lowest ratings and a high problem severity index
Tier 2	Transport accessibility, pedestrian environment, and wayfinding	These factors affect ease of movement and the duration of visitors' stays
Tier 3	Accommodation, food service facilities, and souvenir retail	These components determine average tourist spending and the commercial attractiveness of the route

The most urgent areas are the development of parking facilities, the digitalisation of the route, and the creation of an accessible environment. Improvements in these areas are expected to have a relatively strong effect on satisfaction levels and may be implemented through a combination of public, municipal, and private investment (Order of the Government of the Russian Federation No. 2129-r, 2019; Resolution of the Government of the Russian Federation No. 2439, 2021; Ministry of Economic Development of the Russian Federation, n.d.).

Investment Interpretation of the Results

From an investor's perspective, the assessment results indicate that the “Golden Ring 2.0” route has sustainable tourism potential but requires the modernisation of its supporting infrastructure (Chernikova, Bokareva, 2025). The high level of satisfaction with cultural attractions provides a stable foundation for tourism demand, while lower ratings for service and digital infrastructure indicate the existence of unoccupied market niches.

The most attractive areas for investment are as follows:

Investment area	Reason for attractiveness	Potential effect
Boutique hotels and small-scale accommodation facilities	Shortage of high-quality accommodation	Longer tourist stays
Glamping sites and countryside tourism complexes	Demand for short nature-based holidays	Expansion of the seasonal tourism offering
Tourist parking facilities and hubs	High problem severity of parking infrastructure	Greater convenience for car tourists
Digital platform for the route	Lack of an integrated digital service	Growth in independent travel and online sales
Gastronomic centres	Strong interest in local cuisine	Increase in average tourist spending
Souvenir markets and craft clusters	Demand for local identity and authentic products	Support for small businesses
Event venues	Need to reduce seasonality	Increase in repeat visits

Thus, infrastructure constraints also represent investment opportunities. The most promising approach is a combined development model in which a single facility generates revenue from

several sources, including accommodation, food services, excursions, events, rentals, souvenir sales, and digital services (GOST R 50681–2010, 2011).

CONCLUSION

The assessment shows that the overall satisfaction index of stakeholders in the “Golden Ring 2.0” tourist route with the existing infrastructure is 72.4%, corresponding to a medium level. The strongest components of the route are its cultural and historical attractions, food service facilities, and basic accommodation infrastructure. Parking facilities, digital services, and accessibility remain the most problematic areas.

From a statistical perspective, the key factors determining overall satisfaction are the quality of cultural attractions, transport accessibility, and accommodation infrastructure. At the same time, the most important areas for investment development include an integrated digital platform for the route, tourist hubs, new types of accommodation facilities, parking infrastructure, and gastronomic centres.

Consequently, the further development of the “Golden Ring 2.0” route should focus on improving connectivity between its destinations, digitalising the tourism experience, enhancing the urban environment, and creating new service facilities based on a combined revenue model. These measures will increase satisfaction among tourists and businesses, raise average tourist spending, extend the duration of visitors’ stays, and strengthen the investment attractiveness of the route.

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