



ON-BOARD FACILITIES AND TOURISTS' SATISFACTION LEVEL OF THE NILGIRIS MOUNTAIN RAILWAY"

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Abstract

The Nilgiris Mountain Railway (NMR) also known as the “**Toy train**” is a historic metre-gauge railway in Tamil Nadu, India, constructed by the British in 1908 and recognised as a UNESCO World heritage site. This study aims to evaluate tourist satisfaction levels and identify on-board facilities provided by the NMR. The railway features including cogwheel toothed mechanism engages to ascend steep gradients effectively. A chi-square test revealed a significant association between gender and satisfaction levels, with female tourists reporting higher satisfaction than males. A total of 106 tourists were selected as the sample size for the present study. Questionnaire based and schedule-based interviews were conducted with tourists to collect primary data. The study highlights various on-board facilities, including electric fittings and cleanliness, which received mixed reviews from passengers. Overall, while the NMR offers a scenic and nostalgic travel experience, there are areas for improvement to elevating tourist satisfaction further.

Keywords: Nilgiris Mountain Railway, Toy train, Tourist satisfaction, On- board facilities, locomotives, Travel experiences.

Introduction:

The Nilgiris Mountain Railway (NMR), commonly referred to as the “toy train” by locals is a meter gauge railway in Tamil Nadu's Nilgiris district, established by the British in 1908. Operated by southern Railway, it is India's sole rack railway, primarily using steam locomotives. Although NMR transitioned to diesel locomotives between Mettupalayam and Ooty, a campaign by locals and visitors advocated for a return to steam. In July 2005, UNESCO designed the railway as part of the Mountain Railways of India World Heritage site, extending the recognition of the Darjeeling Himalayan Railway.

Objectives of the Study:

1. To evaluate the level of satisfaction of tourists in visiting Nilgiris Mountain Railway.
2. To identify the on-board facilities provided in Nilgiris Mountain Railway.

Nilgiris district: An overview

Nilgiris is situated in the highest elevation at the meeting points of western and eastern ghats in the deccan plateau of Tamil Nadu. The Nilgiris is located at an elevation of 900 to 2636 meters above the sea level. The Nilgiris bounded by Kerala in the east, erode district in the West, Karnataka state in the north and Coimbatore district in the South Nilgiris hills standing aloft from the uplands of Coimbatore is a plateau at a length of 55 kilometres and width of 32 kilometres approximately having an area of 2452.50 square kilometres. It is watered by the river Bhavani on the southern side and by the



river Mayar in the north. Nilgiris is famous for the cultivation of pepper, ginger, beans, beetroot, cabbage, potato, tomato and other vegetables. The British who came to this hill district during the first quarter of the 19th century introduced from England plants of numerous varieties, fruits, vegetables and the ornamental flowers.

UNESCO: An overview

The United Nations Educational Scientific and Cultural Organisation (UNESCO) World Heritage Sites are important places of cultural or natural heritage as described in the UNESCO World heritage convention, established in 1972. There are 38 World Heritage sites located in India. Nilgiris Mountain Railway is a meter Gauge railway built by the British in 1908 A.D. is operated by the southern Railway. The 16 tunnels and tall girder bridges on the way, along with breathtaking view, making it a 'not-to-be-missed' journey. The Indian Railway is taking effective steps to attract the tourists. It makes tourism industry as one of the incomes generating industry for the authorities of India.

Panorama of Nilgiris Mountain Railways

Indian railways boast a collection of over 230 well-preserved steam locomotives and around 100 vintage coaches from earlier periods. These historic trains and carriages are displayed in prominent locations, such as heritage sites and parks, attracting many visitors. This age, exceeding a century, evokes nostalgia and joy among those who come to see them. The Nilgiris Hills, rich in history since the 1800s, features British-era architecture and is known as the "Blue Mountains". Recently designated a UNESCO Heritage site, it showcases a unique blend of architectural, cultural, and tribal heritage. Notable landmarks include Ootacamund club, St.Stephen's Church, the Nilgiri mountain railway, and more, reflecting the region's historical significance.

Features of Nilgiris Mountain Railways

The Nilgiri Mountain Railway (NMR) employs 'X' class steam rack locomotives, mainly produced by the Swiss locomotive and Machine works in Winterthur, Switzerland, for the rack and pinion sections of its track. Although many of these locomotives are nearly 80 years old, the latest model was finished in August 2021 at the Golden Rock Railway Workshops in India. These steam engines lend a unique charm to NMR, transporting many passengers to Coonoor and Udhagamandalam over a distance of 45.8 kilometers (28 miles), featuring 108 curves, 16 tunnels and 250 bridges.

Steam locomotives can function on any segment of the railway line, while diesel engines are limited to the section between coonoor and Udhagamandalam. Each diesel locomotive weighs just over 50 tonnes and costs Rs.10 crores. They are equipped with pilot and primary burners, with separate tanks capable of holding about 850 liters (190 imp gal;220 US gal) of diesel and 2250 liters (490 imp gal;590 US gal) of furnace oil. The hauling capacity of these modern engines is 97.6 tonnes (96.1 long tons; 107.6 short tons), allowing them to achieve speeds of up to 30 kilometers per hour (19 miles per hour) when ascending gradients. The introduction of these new engines has significantly reduced the service interruptions that were once common.

Tourist Attraction

Heritage railway have experienced phenomenal growth over the last 50 years. Timothy comments that, since the 1970, there has been a substantial growth of heritage railways catering to tourists...their popularity lies in the novelty of historic trains and renowned railway routes". For example, there are those that are "historic nature and become a heritage experiences" because they have



operated for decades. Generally, “heritage railways are old and famous lines that have been restored to offer heritage experiences”. the latter featured the well-known luxury orient express. Furthermore, heritage railways are typically associated with historic routes, frontier settlements, mining areas, forestry and regions of notable natural and cultural significance. Regardless of their past, there are now “countless heritage railways” worldwide that have evolved into sought-after tourist destinations. In addition, the increasing interest in leisure activities among people globally creates opportunities for heritage railways to attract a diverse audience.

Methodology

The researcher has applied the necessary tools, such as chi-square test and descriptive analysis through SPSS (Statistical Packages for Social Science) to analysis the concept of tourists’ attractions of visiting Nilgiris Mountain Railway.

Tourist satisfaction:

Tourist satisfaction in rail transit is influenced by various factors, including reliability, comfort, safety, accessibility, affordability, communication, and environmental sustainability. Reliability and punctuality are fundamental, as passengers expect trains to adhere to schedules and minimize delays. Moreover, comfortable facilities such as clean trains and stations with adequate seating amenities, enhance the overall travel experiences.

Hypothesis

H₀: There is no association between gender with respect to level of satisfaction of tourists in visiting Nilgiris Mountain Railway.

Chi square test for association between gender and level of satisfaction of tourists

Table No: 1

Gender	Level of Satisfaction			Total	Chi-square value	P value
	Low	Moderate	High			
Male	9 (14.8) [81.8]	51 (83.6) [60.0]	1 (1.6) [10.0]	61 (100.0) [57.5]	12.115	0.002
Female	2 (4.4) [18.2]	34 (75.6) [40.0]	9 (20.0) [90.0]	45 (100.0) [42.5]		
Total	11 (10.4) [100.0]	85 (80.2) [100.0]	10 (9.4) [100.0]	106 (100.0) [100.0]		

Source: Computed Primary data

- Note:** 1. The value within () refers to row percentage
 2. The value within [] refers to column percentage



From the table 1, since p value is less than 0.01, the null hypothesis is rejected at 1 per cent level of significance. Hence concluded that there is association between gender and level of satisfaction of tourists visiting Nilgiris Mountain Railway (NMR) Based on row percentage, 14.8 per cent of male have low level of satisfaction, 83.6 per cent of male have moderate level of satisfaction only 1.6 per cent of male respondents have high level of satisfaction, whereas for female tourists. 4.4 per cent belongs to low level of satisfaction and 75.6 per cent belongs to moderate level of satisfaction and 20.0 percent of female tourists have high level of satisfaction. Hence, Female tourists have high level of satisfaction, and the male tourists have moderate level of satisfaction.

On-board facilities

Onboard passengers’ facilities can be described as providing the utmost level of luxury during travel on any railway, including amenities such as seating arrangements, meals, and additional services. According to business Dictionary (2017). Levels of services is the “Amount and kind of service that, on one hand, is appropriate to the needs and desires of the customers the firm wishes to attract and on the other, is not high enough to cut deep into the profits”.

Descriptive Analysis of On- board facilities provided in Nilgiris mountain Railway

Table No: 2

Statements	N	Minimum	Maximum	Mean	Std. Deviation
What do you feel about the performance of electric fittings, which includes switches, fans, and seating facility	106	1.00	4.00	1.75	.794
What is your opinion on performance / working of train system	106	1.00	5.00	2.22	.926
Give your opinion on the working window shutters and main doors	106	1.00	4.00	1.75	.874
What is your opinion on the amenities offering by the mountain railway to railway passengers	106	1.00	5.00	2.23	.918
Give your opinion on the cleanliness of train compartments	106	1.00	5.00	1.95	1.008
How would you rate the services offered by Nilgiris mountain railway	106	1.00	5.00	2.03	1.028
Valid N (listwise)	106				

Source: Computed primary data



From the table 2, presents passenger perceptions of on-board facilities on the Nilgiris mountain railway, with 1 represents “excellent” and a score of 5 represents “Unsatisfactory”. The mean score for electric fittings is 1.75, indicating that passengers perceive these facilities as excellent, with only slight room for improvement. Similarly, the mean score for windows shutters and main doors is also 1.75, these features are viewed by positively by passengers. The performance of the train system has a mean score of 2.22. which still reflects a generally favourable opinion, though it indicates some areas where improvements could be made. Amenities provided by the Mountain railway received a mean score of 2.23, indicating that passengers are mostly satisfied with the amenities but see potential for enhancement. The cleanliness of train compartments has a mean score of 1.95, that passengers find the cleanliness to be very good, with only minor issues reported. Finally, the services offered by the Nilgiris mountain railway scored 2.03, indicating that while passengers are generally satisfied with the services, there is still some room for improvement.

Findings

1. The researcher found that, male tend to be more satisfied with the Nilgiris Mountain Railway owing to their greater interest in its engineering and significance in history. The scenic journey through the Nilgiris hills may align better with their expectations of adventure and exploration. Additionally, social factors and differing travel preferences could influence satisfaction levels, besides males enjoying the thrill of the ride more than females.
2. The researcher found that, many tourists reported that the coaches are poorly maintained and outdated, which detracts from their experience. The train’s slow travel speed, taking approximately five hours for a small range, frustrates passengers expecting a comfortable journey. Additionally, inadequate amenities and cleanliness at stations further diminish overall satisfaction of on-board facilities. Finally, a gap between high expectations and the actual service quality often leads to disappointment among travellers.

Suggestions

1. To enhance satisfaction among tourists, especially females, the Nilgiris mountain railway could implement several strategies. Coaches for women would be introduced for safe and convenient journey. Safety is to be focused (especially women RPF) intensively by Railway Protection Force (RPF). So, as to provide security against theft and harassment.
2. To improve on-board facilities, the Nilgiris Mountain railway should focus on the growing number of travellers in second class compartments. To encourage these passengers to upgrade to first class, the railway could consider reducing first-class fares, making it more accessible for those seeking a comfortable journey. Furthermore, enhancing the maintenance of rails and stations will contribute to an overall better travel experience.

Conclusion

The Nilgiris Mountain Railway (NMR) offers a captivating travel experience, celebrated for its historical significance and breathtaking scenery. The study indicates that while overall satisfaction levels are positive. There are opportunities for enhancement in On-board facilities and service quality. High ratings for electric fittings and cleanliness suggest a strong foundation to build upon. By addressing concerns related to coach maintenance travel speed, and amenities, the NMR can raise the passenger experience. With targeted improvements, the railway can continue to charm visitors and solidify its reputation as a must visit destination in India, ensuring that all passengers leave with indelible experiences and intent to return.



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