

## Identifying Strategies for Improving Railway Services in Bangladesh

**Authors :** Armana Sabiha Huq, Tahmina Rahman Chowdhury

**Abstract :** In this paper, based on the stated preference experiment, the service quality of Bangladesh Railway has been assessed, and particular importance has been given to investigate if there exists a relationship between service quality and safety. For investigation purposes, environmental and organizational factors were assumed to determine the safety performance of the railway. Data collected from the survey has been analyzed by importance-performance analysis (IPA). In this paper, a modification of the well-known importance-performance analysis (IPA) has been done by adopting the importance of the weights determined through a structural equation modeling (SEM) approach and by plotting the gap between importance and performance on a visual graph. It has been found that there exists a relationship between safety and serviceability to some extent. Limited resources are an important factor to improve the safety and serviceability condition of the BD railway. Moreover, it is observed that the limited resources available to monitor and improve the safety performance of railway.

**Keywords :** importance-performance analysis, GAP-IPA, SEM, serviceability, safety, factor analysis

**Conference Title :** ICRTET 2021 : International Conference on Rail Transportation Engineering and Technology

**Conference Location :** Tokyo, Japan

**Conference Dates :** May 27-28, 2021