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Impact of strategic demand management on runway capacity at Oliver Reginald Tambo International Airport.

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ABSTRACT

The overall capacity of an airport is determined by the airfield, particularly the runway system. The demand for runway access at major airports is expected to eventually exceed the capacity of the existing runway systems. The lack of adequate runway capacity at an airport results in congestion and expensive delays. Airport authorities, in response, plan to make significant investments on new runways where possible. There is consensus amongst researchers that the lack of adequate runway capacity cannot only be addressed by building additional capacity. Innovative ways which aim for better utilisation of existing facilities should be considered. Therefore, the research question is posed: Can demand management be successfully applied to defer capital expenditure. A detailed literature review of international best practices and analysis of their suitability is undertaken using ORTIA as a case study. The literature review identified: collaborative decision making; air and rail integration; demand management and technological improvements as likely interventions. The most significant finding of this research report is that the capacity of a runway system can be improved by implementing these measures.

Keywords: ORT International Airport; runway congestion; demand management.