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## **INTER-DOM INTEGRATED TERMINALS- THE IMPACT ON AIRLINES' EFFICIENCY AND SAFETY**

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### **ABSTRACT**

Aviation safety and security involves balancing operational efficiency with the customer experiences from check-in to deplaning. Operational efficiencies in the passenger terminals are a must to maintain synchronized schedules to contribute to revenue margins. The strategic aircraft allocations on the terminals are vital to reduce the minimum connection time. Thus, the airport structure is essential to allocating aircraft to the right terminal and to the right positions allowing passengers to connect quickly to the next flight. This study assessed how implementing hybrid passenger terminals may improve operational efficiency while upholding the exceptional customer experiences. The gap between international recommendations such as United States and European operations were analyzed to better inform airport operations in Brazil. In this study, the analysis was conducted with a goal of promoting a more reliable and efficient operation in Brazil. Specifically, the study analyzed benefits from integrating domestic and international passengers in the same vicinity in an airport via the implementation of hybrid passenger terminals that combine domestic and international flights. It is believed this hybrid terminal approach will optimize the airport space and experience as well as improve operational efficiency and safety. To study the potential impact of hybrid terminals IATA, ICAO, and ANAC's perspective were used to understand the current regulations in Brazil. Then the United States model for airport terminals was included as a model along with European systems. The recommendations from the analysis found the need to consider a variety of stakeholder groups' perspectives in such a design and change. It is recommended a cost-benefit analysis be performed to then evaluate the redesign impact on the airport operations efficiency and revenues. The cost benefit analysis assists with studying the series of structural adaptations necessary that could be compensated by increasing the use of terminals and improving connection time by airlines. Findings also concluded that investment is needed into technologies to facilitate the sharing of passenger information between the airlines and government regulators to continually improve operational efficiency. From the analysis it is recommended the airport invest in additional screening options to expedite the security screenings while following international protocols in the hybrid terminals. Future studies are recommended to evaluate the effectiveness of the hybrid terminal designs implementation as to how it improved efficiency and its impact on revenue margins.

**Keywords:** Hybrid Terminal, Support Operations, Passenger Terminals