COMPLETION REPORT

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Subject of Research Project: Revisiting Airport Privatisation and Productivity in Japan: Lessones for emerging Countries

Recently, the debate surrounding the pros and cons of privatization has resurfaced within discussions about the aviation industry. This resurgence is somewhat surprising, considering that privatization began in 1987 with the privatization of the BAA. One might assume that such an issue would have been thoroughly examined by economists by now. However, this is not the case. While numerous studies have been conducted, their findings remain inconclusive, largely because many have failed to adequately address the complexity of the issue. Similar to Japan, other nations have experienced significant regulatory shifts in the aviation industry over the years. For Japan, a notable milestone was the enactment of the Airport Act in 2008. Traditionally, most Japanese airports were owned and managed by central and regional governments. However, in 2012, the Japanese government launched an ambitious initiative to privatize 94 local airports between 2014 and 2020. This policy aimed to streamline operations, reduce landing fees, attract private investment, and enhance the competitiveness of Japan's aviation sector. The privatization process began with Sendai Airport, which transitioned to private management under the Tokyu Consortium in July 2016. However, the COVID-19 pandemic significantly disrupted these efforts, causing financial strain on both airlines and airport operators. Despite these challenges, the government remains committed to resuming privatization initiatives in the post-pandemic period. With plans to privatize approximately 100 airports, Japan's effort represents the most ambitious of its kind globally and reflects a strong push to reshape the aviation landscape. The primary goal of Japan's privatization drive has been to improve the efficiency of airport operations. However, there is a notable lack of comprehensive research evaluating the performance of airports following privatization since 2012. Economic theory suggests that privatization and the resulting competition can foster greater efficiency, making Japan's approach a valuable case study for other nations considering reforms in their airport industries. Airport operations are inherently complex, involving interconnected processes where intermediate outputs serve as inputs for subsequent stages. Measuring efficiency in such systems requires advanced analytical frameworks. A network Data Envelopment Analysis (DEA) model is particularly well-suited for this purpose, as it evaluates the impact of inputs across distinct operational phases and provides precise efficiency measurements. This study examines the efficiency of Japanese airports from 2014 to 2020 using a network DEA model and assesses the airline-airport performance of the entire system. Data was sourced from secondary repositories, including the ICAO database and annual reports from Japan's Ministry of Land, Infrastructure, Transport, and Tourism. The results reveal that several airports, such as Sendai, Fukuoka, Shizuoka, Takamatsu, and Tottori, demonstrated significant improvements in efficiency following privatization, particularly during the pre-pandemic years. These findings align with earlier research conducted in other countries. Notably, the analysis highlights a pattern: while many Japanese airports perform well in the first stage of operations, they underperform in the second stage, which focuses on revenue generation and sales. This imbalance underscores the need to enhance second-stage efficiency to achieve overall performance gains. Policymakers and airport operators should prioritize this area to fully capitalize on the benefits of privatization. As privatization efforts continue, further empirical research will be essential to refine strategies and ensure the long-term success of Japan's aviation industry.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)
Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.) *Expected submission to Transport Review for possible consideration:* Graph Network Directional Distance Function and Network Malmquist Productivity Index: A New Framework for Airport Productivity Measurement.
Book (Publisher and Date of the Book, Title and Author of the Book, etc.)