


ANALYTICAL REVIEW FOR COMPETITIVENESS OF LGBI AIRPORT GUWAHATI IN TERMS OF AIRCRAFT AND PASSENGER MOVEMENT FOR LONG-TERM VIABILITY

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 14 April 2023</p> <p>Accepted 12 July 2023</p>	<p>Purpose: This paper aims to analyze the profitability and future viability of LGBI Airport Guwahati in terms of sources of revenue from traffic & non-traffic modes by identifying the factors that influence the traffic (aeronautical) revenue and non-tariff (non aeronautical) revenue.</p>
<p>Keywords:</p> <p>Airport; Dwell time; Revenue; Traffic; Non-Traffic.</p>	<p>Theoretical Framework: The study followed economical concepts related to traffic and non-traffic assets that exist on an airport. The theoretical framework reveals the revenue model. It is essential to declare the profitability and competitiveness of an Airport whether operating under single till approach or Dual till approach or hybrid one.</p> <p>Design/Methodology/Approach: The systematic literature review is based on an exploratory research design following a quantitative study, from a list of 12-15 research and review papers relevant to the purpose of the study. The data extraction from the sorted literature is done through linear regression using SPSS software.</p>
	<p>Research, Practical & Social Implication: Certain initiatives may directly influence Non-Aero income. Except for significant airports like DIAL, MIAL, BIAL, and HIAL, the ratio of traffic to non-traffic income at Indian airports is 25/75. Also the implications drawn from this study would help the airport managers to develop innovative strategies to improve the revenues via both, traffic and non-traffic modes.</p> <p>Findings: The researcher used Factor analysis, Linear regression and Principal component analysis. The analysis identified negative and positive factors that affect tariff and non-tariff revenues separately. Regression analysis revealed significant determinants that have influence on the profitability. Using the results, managing the variables to maximize total income and controlling variables may increase income.</p> <p>Originality/Value: This academic article is a research work highlighting the comprehensive revenue sources in the LGBI airport, Guwahati.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i6.3124</p>

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REVISÃO ANALÍTICA PARA COMPETITIVIDADE DO AEROPORTO LGBI GUWAHATI EM TERMOS DE MOVIMENTO DE AERONAVES E PASSAGEIROS PARA VIABILIDADE A LONGO PRAZO

RESUMO

Objetivo: O presente documento visa analisar a rentabilidade e a viabilidade futura do aeroporto LGBI Guwahati em termos de fontes de receitas provenientes de modos de tráfego e não-tráfego, identificando os fatores que influenciam as receitas (aeronáuticas) do tráfego e as receitas não-tarifárias (não-aeronáuticas).

Quadro Teórico: O estudo seguiu conceitos econômicos relacionados com ativos de tráfego e ativos não relacionados com o tráfego que existem num aeroporto. A estrutura teórica revela o modelo de receita. É essencial declarar a rentabilidade e a competitividade de um aeroporto, quer opere numa única abordagem, quer numa abordagem de caixa dupla, quer numa abordagem híbrida.

Design/Methodologia/Abordagem: A revisão sistemática da literatura baseia-se em um projeto de pesquisa exploratória após um estudo quantitativo, a partir de uma lista de 12-15 trabalhos de pesquisa e revisão relevantes para o objetivo do estudo. A extração de dados da literatura ordenada é feita por regressão linear usando o software SPSS.

Pesquisa, Implicação Prática & Social: Certas iniciativas podem influenciar diretamente a renda não-Aero. Exceto para aeroportos significativos como DIAL, MIAL, BIAL e HIAL, o rácio de tráfego para a receita não de tráfego nos aeroportos indianos é 25/75. Also as implicações retiradas deste estudo ajudariam os gestores aeroportuários a desenvolver estratégias inovadoras para melhorar as receitas através de ambos os modos, tráfego e não-tráfego.

Constatações: O pesquisador utilizou análise de Fator, regressão linear e análise de componente Principal. A análise identificou fatores negativos e positivos que afetam as receitas tarifárias e não tarifárias separadamente. A análise de regressão revelou determinantes significativos que influenciam a rentabilidade... Usando os resultados, gerenciar as variáveis para maximizar a renda total e controlar as variáveis pode aumentar a renda.

Originalidade/Valor: Este artigo acadêmico é um trabalho de pesquisa que destaca as fontes de receita abrangentes no aeroporto LGBI, Guwahati.

Palavras-chave: Aeroporto, Tempo de Permanência, Receita, Tráfego, Sem Tráfego.

EXAMEN ANALÍTICO DE LA COMPETITIVIDAD DEL AEROPUERTO DE LGBI GUWAHATI EN LO QUE RESPECTA AL MOVIMIENTO DE AERONAVES Y PASAJEROS PARA LA VIABILIDAD A LARGO PLAZO

RESUMEN

Objetivo: El presente documento tiene por objeto analizar la rentabilidad y la viabilidad futura del aeropuerto LGBI Guwahati en términos de fuentes de ingresos procedentes de los modos de tráfico y no de tráfico, identificando los factores que influyen en los ingresos por tráfico (aeronáutico) y no arancelarios (no aeronáuticos).

Marco teórico: El estudio siguió conceptos económicos relacionados con los activos de tráfico y los activos no relacionados con el tráfico existentes en un aeropuerto. La estructura teórica revela el modelo de receta. Es esencial declarar la rentabilidad y la competitividad de un aeropuerto, tanto si funciona con un único enfoque, ya sea en una doble caja o en un enfoque híbrido.

Diseño/Methodología/Enfoque: La revisión sistemática de la literatura se basa en un proyecto de investigación exploratoria tras un estudio cuantitativo, a partir de una lista de 12-15 trabajos de investigación y revisión relevantes para el objetivo del estudio. La extracción de datos de la literatura ordenada se realiza mediante regresión lineal utilizando el software SPSS.

Investigación, Implicación Práctica y Social: Algunas iniciativas pueden influir directamente en los ingresos no anuales. Salvo en el caso de aeropuertos importantes como DIAL, MIAL, BIAL y HIAL, el ratio de tráfico respecto a los ingresos no generados por el tráfico en los aeropuertos indios es 25/75. Also las implicaciones de este estudio ayudarían a los gestores de los aeropuertos a desarrollar estrategias innovadoras para mejorar los ingresos a través de modos de tráfico y no de tráfico.

Hallazgos: El investigador utilizó análisis de factores, regresión lineal y análisis de componentes padre. El análisis identificó factores negativos y positivos que afectan por separado a los ingresos arancelarios y no arancelarios. El análisis de regresión reveló importantes factores determinantes que influyen en la rentabilidad... Utilizando los resultados, la gestión de variables para maximizar el ingreso total y las variables de control puede aumentar el ingreso.

Originalidad/Valor: Este artículo académico es un artículo de investigación que destaca las amplias fuentes de ingresos en el aeropuerto LGBI, Guwahati.

Palabras clave: Aeropuerto, Tiempo de Estancia, Ingresos, Tráfico, Sin Tráfico.

INTRODUCTION

The transportation infrastructure is the foundation of any economy (Agustina, *et al.*, 2023). It is crucial to the development and progress of any nation. They are essential to the growth and advancement of each sector in an economy. According to the latest Airport Economics report by ACI (2022) revealed that Airports Primary revenue traffic and non-traffic declined sharply due to Covid 19 restrictions across the Globe. However, non-traffic revenue from cargo and other concessions kept the operations floating. Aeronautical and non-aeronautical income are the two main areas into which airport revenue is often divided. The term "aeronautical revenues" refers to income streams that are directly related to the operating of airplanes and the handling of passengers and cargo. Non-aeronautical revenues are those that are produced by operations that are not directly related to operating airplanes, particularly those from commercial activities inside the terminal including retail, food, and beverage sales, as well as rent for terminal space and airport property. Now after passage of Covid 19 there is gradual increase in both traffic and non traffic revenue simultaneously.

We identified various factors that have a relevant impact on the revenue related to LGBI (Lokpriya Gopinath Bordoloi International Airport). Guwahati is situated in the North East part of India in the state of Assam. Guwahati being the capital city and having a large chunk of population among North Eastern states of India attracts more businesses hence traffic. Here the paper under study exclusively focuses on Revenue of LGBI Airport Guwahati and tries to analyze the profitability with respect to traffic and non-traffic revenue.

The business model reveals that the revenue model is a major factor to declare the profitability of an Airport whether operating under single till approach or Dual till approach or hybrid one. Here it is worth mentioning that the business model adopted has a direct impact on the balance sheet. Under single till approach the cost incurred towards operational charges say Air side operations if found negative, the shortfall is countered with non-traffic revenue by maintain the operations and fulfilling the regulatory requirements under single till approach with single cost center Whereas on the other side under double till approach the cost incurred on operations of Air side infrastructure and non-traffic side are kept under two different cost center, therefore the traffic revenue remains the only source of income to develop the infrastructure as per standard and regulations. Here this may lead to safety issues and other regulatory observations as the Airport operator is at its liberty to utilize the non-traffic revenue

for different purposes. Usually the practice across the globe is to adopt a single till approach of utilizing the whole income of Airport irrespective of traffic and non-traffic revenue for better revenue management. Further under hybrid till approach only 30% of non-traffic revenue is shared/ merged with traffic revenue which is also not a healthy practice. Usually Airports do such a kind of mixing to siphon off the non-traffic revenue for some other non-Aero activities.

The paper under study covers both traffic and non-traffic revenues of LGBI Airport Guwahati and analysis has been carried out to work out on the factors impacting the revenue. Traffic revenue mainly depends on ATMs and passengers count and remains directly proportional to each other. On the other hand, both the variable i.e ATMs and passengers do directly impact the non-traffic revenue as well. Non traffic revenue streams like car parking, food and beverages, retails, and other space rentals shall be increasing with increase in ATMs and passengers. The key variable are User development fee, aircraft parking, passenger service charge, ground handling charges, CUTE charges, RNFC (Landing/take off), fuel charges, car parking, Airport entry, portages, retails and duty free, property/ space rentals, hotels, restaurants, lounges, land monetisation, advertising etc. All these services contribute towards revenue generation. Further digital innovation also plays an important role towards maximizing revenue by identifying and supporting IT enabled services.

OBJECTIVE OF THE STUDY

The purpose of the study is to identify competitiveness analysis of LGBI airport Guwahati in terms of aircraft and passenger movement for long-term viability

REVIEW OF LITERATURE

A study related to Airport revenue diversification concluded that Airport revenue management can be enhanced by using maximum advertising business, improving upon leasing policies, encouraging transparency, and avoiding ad hoc decisions, using IT enabled services to better manage revenue contracts (Gu, 2019). With these efforts market penetration can be enhanced. Non Aeronautical revenue also plays a major role in overall revenue generation. But it is a subject to adopting the latest art of technological tools to minimize human intervention and by bringing transparency in contract management systems. The study suggests various business models may be adopted at Airports to enhance non traffic revenue to the tune of 50%. The physical dimension of airports may certainly contribute to generating more revenue. A statistical analysis of business models of European Airports based on various parameters like

passengers' footfall, terminal facilities, Airside infrastructures, and non-traffic services revealed that all these factors play a vital role as a source of revenue (Shome & Verma, 2020).

A number of studies discussed the untapped potential of revenue management in Airports. They put forth the details about pricing strategies for effective revenue management of untapped potential of services like dynamic pricing models, developing theme bases arenas for visitors, land monetisation, land leasing etc. Also gathering of maximum data to improve upon the services. Technology may play an important role in maximizing Airport revenue by gathering the data to the maximum from all business activities and devising the programming to have IT enabled services. Various non traffic services like Airport parking, Airport food and beverages, lounges, retails, advertising etc. Use of IT enabled services may contribute towards maximization of revenues. ACI (2022) in its report has mentioned various techniques of revenue models at various Airports across the Globe and given statistics of revenue shares of various verticals/ streams. The report suggests traffic revenue simultaneously role of PPP Airports on safety, security and other regulatory issues to be addressed by the Airport operators. "The Impact of Low Cost Carriers on Non-Aeronautical Revenues in Airport: An Empirical Study of UK Airports" by Yokomi stated various factors impacting revenues like LCC and ATMs. LCC pax. may consume more services and may contribute more towards non traffic revenues. The report suggests traffic revenue simultaneously role of PPP Airports on safety, security and other regulatory issues to be addressed by the Airport operators. Anuradha Yadav, 2014 in a paper titled "Indian Aviation sector as a growing services sector in Indian Economy" concluded aviation is a better managed and regulated sector among other services in India. Aviation industry has its footprint all over the world providing Air connectivity within the country as well as outside. A research study on Indian Civil Aviation Industry displayed that India has a major share of traffic in domestic travelers being 5th fastest growing aviation market (Vijaykumar & Vijay, 2017). Further, the study identified that the Indian Aviation Industry is on rise and penetrating the semi urban and rural population. The Govt. Policies and programs like NCAP 2016 on UDAN have really revolutionized the Aviation sector and has brought common man on board to travel by Air, India may become largest Air become largest Air transport market in year 2030.

A report stated that merger of airlines increases the size and profitability (Kumar & Vijai, 2017). The variable component is quite low compared to fixed one i.e capital cost is more than the variables one. In such circumstances mergers of an Airline certainly give an edge to counter losses and manage the operational expenses. A study checked the Sustainability of

Airlines in India with Covid 19 challenges ahead and possible way outs. It concluded that the aviation industry suffered the most during Pandemic and expected to lose USD 84.3 billion in 2020 (Agarwal, 2020). It is the highest loss witnessed by the aviation sector. Airlines need to adopt or innovate revenue strategy by focussing on minimizing losses rather than profit making. A research on aviation during and post pandemic Covid 19 impact and strategies revealed that airports face new challenges to combat Covid 19 and adopt new norms of sanitizing, contact less check in, maintaining distances on seating inside Airport and within Aircraft, using robots, AI etc. Fear among the traveler in general about their health has kept them back from boarding apart from cash crunch in the market. This perception has put aviation on back foot but the revenue strategies can help the sector to get back on track (Tadamala, Srivastav & Solanki, 2019).

Using Bankruptcy Prediction Models a research identified financial distress of the Indian aviation industry. It stated that except Indigo Airline all other Airlines VIZ SpiceJet, Air India are not in healthy condition. Spice Jet is improving, but JET Airways the premier airline has drowned and remains suspended since April 2019 (Mehta, 2020). The financial distress does not necessarily Means bankruptcy, airlines need to focus on identifying the variable critical in improving the financial performance. A research paper which measured Travelers perceptions with reference to Indian Domestic Airlines concluded that airlines need to have introspection and create confidence among the travelers for their safe travel (Graham, 2014). Quick responsiveness, empathy, service quality, tangibility , improvements in services by minimizing timings and better information systems through various digital platforms like SMS, mails etc. can improve customers' perceptions towards the traveling experience. Further analysis can be done on connections between ticket pricing, service quality, customer loyalty, and duty performance, etc.

An empirical research claims that LCC (Low carrier cost) passengers make particularly good use of the food and beverage services because there aren't any complimentary in-flight beverages. Also, due to some secondary airports' relative remoteness, LCC passengers frequently use more parking. LCC passengers do not receive meals on their flights, they are different and spend more money at airport concessions (Gillen & Lall, 2004). Although their analysis found no evidence to support this theory, they noted that if it were true, it would be merely another perk for the airport, and it might even result in a net gain even if landing fees had to be decreased to attract LCCs. Dynamic pricing of services may fetch more revenue like by keeping more charges towards parking in peak hours and low charges during line hours, it

will attract the car owners to remain parked even during line hours and will pay revenue with reduced tariff (Yadav, 2014). Under the study both traffic and non-traffic revenue of LGBI Airport have been analyzed as a source of revenue.

RESEARCH METHODOLOGY

The variables that affect and contribute to an airport's competitiveness have been identified by applying multivariate statistical analysis data and multiple regression. When it is required to work with multiple variables simultaneously but there is no clear relationship between them, a multivariate analysis of the data is performed. In other words, this approach is employed when there is a huge group of data and it is desired to summarize and/or simplify their shared behaviors. Even in the absence of a theoretical model that frames the relationship between the variables operated, it can be employed and applied for a variety of objectives (Bakke, Leite, and Silva, 2008).

As a result, factors relating to infrastructure (such as the size of the airport site overall, the number of parking spaces for aircraft, and non-aeronautical businesses), operations (such as the number of airlines, the volume of aircraft movement, including landings and takeoffs, and the total number of passengers, both domestic and foreign), and airport location (such as the city's GDP), were all regarded as independent variables (or inputs).

In order to test the behavior of the variables under various situations, the operating variable corresponding to the yearly aircraft movement (landings and takeoffs) was utilized for the dependent variable (output) in the first simulation and the annual passenger movement in the second. According to the data gathered, all these factors were gathered and compared amongst airports in 2023 to determine which of them could be regarded as competitive. The four busiest airports in India made up the sample for this study. Indira Gandhi International Airport, New Delhi (DEL), Chhatrapati Shivaji International Airport, Mumbai (BOM), Chennai International Airport, Chennai (MAA), Kempegowda International Airport, Bangalore (BLR) and LGBI Airport Guwahati with respect to both Traffic and Non-Traffic sources of Revenue.

Table 1: Main variables considered in the study

Operation (Output)		Infrastructure (Input)			Operation (Input)		Location
Airport	Aircraft movement (thousands)	Total area (m ²)	Aircraft parking positions (n)	Non-aeronautical establishments (n)	Number of airlines (n)	Movement of passengers (millions)	GDP of the city (millions of RS)

DEL	7746	129050	122	182	41	696326	500.716.112
BOM	3043	134700	97	177	31	816957	522.116.192
MAA	2233	143600	71	135	22	745364	510.666.181
BLR	2722	129444	85	172	23	674532	470.815.102
LGBI	1256	131277	61	142	13	427324	570.707.112

Source: Researcher own calculations

DISCUSSION

Airports have recently begun to diversify their revenue streams by implementing creative tactics including raising rental rates, competing for concessionaires, and creating chances in other economic sectors like parking and retail. As a result, non-aeronautical revenues have grown significantly, and as a result, they now make up a sizable portion of total revenues. Nowadays, non-aeronautical sources account for an average of 39.4% of global airport revenues. ACI (2022) Airport Economics Report, as source. Airports must increasingly consider revenue and expense management techniques to optimize yields and profitability as a result of the expansion of non-aeronautical revenue streams. Most airport managers today struggle with the lack of automation in this field and the lack of sales data insights that would enable them to create effective pricing plans and achieve the necessary growth while navigating the industry's difficulties (An, 2023). Airport managers are now looking into non-passenger revenue sources as well, such as land leasing, building theme-based activity arenas for tourists and locals, etc., as passenger numbers have significantly decreased as a result of COVID-19 (Anto, & Yusran, 2023).

By addressing both over- and under-use of the parking facilities, dynamic pricing can help the airport generate more income. Airports can set dynamic rates so that lower prices during off-peak hours might entice travelers back into a more lucrative per-trip income source and higher dynamic prices during periods of high demand can deter travelers from bringing their own vehicles to the airport. As per the interpretations of the study in case of traffic revenue, RNFC charges, PSF facilitation charges, Watch extension charges and Counter charges do not have significant influence on the profitability. Other variables are significant, although, Parking charges have a negative impact on profitability (Yokomi, Wheat, and Mizutani, 2017).

The study discussed airports' unrealized revenue management possibilities. It goes into detail on pricing strategies for managing latent income potential of services, including dynamic pricing models, creating theme-based visitor venues, land monetisation, land leasing, etc.

collecting the most data possible to enhance the services (Reid & Mohrfeld, 1973; Wipro, 2022). By collecting the most data possible from all airport's operations. The study identified the role of several non-traffic services available at airports, including parking, food and drink, lounges, retail, and advertising. Later it found that utilizing IT-enabled services could help businesses maximize their earnings.

CONCLUSION

To drive cost minimization and revenue enhancement, airports must invest in technological solutions for revenue management. In order to give Revenue Managers end-to-end access into multiple performance measures, these solutions must be highly adaptable in modeling different fees depending on different pricing strategies and coupled with data analytics platforms. The correct pricing methods may be developed using this amount of information, which will alter how an airport office is now run. Among the levers for enhancing the contemporary airport business, management of non-core commercial operations has emerged as a crucial concern. Currently, non-aeronautical income—which, on average, accounts for half of all revenues with this percentage being very diverse across areas and airports—have become increasingly important to airports. The article discussed the factors influencing both traffic and non-traffic income using a dataset Traffic revenue data for the last 9-10 years and non-traffic revenue for the last 8-10 years. Prior contributions evaluated the effects of a certain collection of non-aviation revenue-related variables. Due to the fact that the majority of pertinent variables have a high correlation with the size of the structures, multicollinearity was primarily responsible for this method.

REFERENCES

ACI, (2022). Airport Council international. https://aci.aero/?gclid=CjwKCAjwov6hBhBsEiwAvrvN6AdAGJiJ_CiJeLCAIw1mJTzcW2wG5AJv9eAOa0A7l5S1_vIkbHIFRoCsRgQAvD_BwE

Agarwal, A. (2020). Sustainability of Airlines in India with Covid 19 challenges ahead and possible way outs. *Journal of Revenue and Pricing Management*, 2021; 20(4): 457–472. doi: [10.1057/s41272-020-00257-z](https://doi.org/10.1057/s41272-020-00257-z)

Agustina, Y., Wijijayanti, T., Winarno, A., & Rahayu, W. P. (2023). The Econo Marketing Model: Development of Productive and Sustainable Tourism Area. *International Journal of Professional Business Review*, 8(2), e01017. <https://doi.org/10.26668/businessreview/2023.v8i2.1017>

- An, Y. (2023). Does Quality of Audit Committee Enhance Audit Quality?. *International Journal of Professional Business Review*, 8(2), e03185. <https://doi.org/10.26668/businessreview/2023.v8i2.1385>
- Anto, L. O., & Yusran, I. N. (2023). Determinants of the Quality of Financial Reports. *International Journal of Professional Business Review*, 8(3), e01331. <https://doi.org/10.26668/businessreview/2023.v8i3.1331>
- Gillen, D. & Lall, A. (2004). Competitive advantage of low-cost carriers: Some implications for airports. *Journal of Air Transport Management*, 10(1), 41-50. DOI:[10.1016/j.jairtraman.2003.10.009](https://doi.org/10.1016/j.jairtraman.2003.10.009)
- Graham, A. (2014). *Managing Airports: An International Perspective*, 4th. ed., Routledge.
- Gu, H. (2019). Airport Revenue Diversification. *Journal of Management Science & Engineering Research*, 2(1), 25–28. <https://doi.org/10.30564/jmsr.v2i1.1122>
- Kumar, N. V., Vijai, C. (2017). Indian civil aviation industry. *International Journal of Multidisciplinary Research and Development*, Volume 4, Issue 5, 2017, Pages 223-228. <https://www.allsubjectjournal.com/archives/2017/vol4/issue5/4-5-43>
- Mehta, P.(2020). Aviation during and post pandemic COVID19-Impactand strategies. *Journal of Aviation and Aeronautical Science*, 2(1), 2020 <https://scienceforecastoa.com/Articles/SJAAS-V2-E1-1013.pdf>
- Reid, S., Mohrfeld, J. W. (1973). Airlines size, profitability, Mergers and Regulations, *Journal of Airline law and commerce*, volume 39, issue 2, Article 3 <https://scholar.smu.edu/cgi/viewcontent.cgi?article=2815&context=jalc>
- Tadamala, A., Srivastav, M., Solanki, S. (2019). Travelers perceptions with reference to Indian Domestic. *Airlines International Journal of Recent Technology and Engineering(IJRTE)*, 8(3), 5470-5476. <https://www.ijrte.org/wp-content/uploads/papers/v8i3/C4972098319.pdf>
- Shome, S. & Verma, S.. (2020). Financial Distress in Indian Aviation Industry: Investigation Using Bankruptcy Prediction Models. *Eurasian Journal of Business and Economics*, 13(25), 91-109. DOI:[10.17015/ejbe.2020.025.06](https://doi.org/10.17015/ejbe.2020.025.06)
- Wipro,(2022). The untapped potential of Revenue Management in the Airport. <https://www.wipro.com/engineering-construction-operations/the-untapped-potential-of-revenue-management-in-airports/>
- Yadav, A. (2014). Indian Aviation sector as a growing services sector in Indian Economy, *International journal of Science and research (IJSR)*, 4(11), 766-768. <https://www.ijsr.net/archive/v4i11/NOV151170.pdf>
- Yokomi, M, Wheat, P. and Mizutani, J. (2017). The Impact of Low Cost Carriers on Non-Aeronautical Revenues in Airport: An Empirical Study of UK Airports. *Journal of Air Transport Management*, 64 (Part A). pp. 77-85. ISSN 0969-6997 <https://doi.org/10.1016/j.jairtraman.2017.06.028>