

Research article

Impact of Covid-19 on Irish airport stakeholder relationships

Noel Hiney ^{*,1}, Marina Efthymiou, Edgar Morgenroth

Dublin City University, Business School, Glasnevin, Dublin 9, Ireland



ARTICLE INFO

Article history:

Received 29 July 2022

Received in revised form 30 June 2023

Accepted 3 July 2023

Available online 25 July 2023

Associate editor: Andreas Papatheodorou

Keywords:

Stakeholder management

COVID-19

Airports

External shocks

Relationships

ABSTRACT

COVID-19 related travel restrictions led to a significant contraction of aviation activities, necessitating significant State support for the sector. This paper assesses the impact of the pandemic and Irish airport stakeholder relationships, exploring a widely expressed view that effective aviation collaboration is essential to recovery from COVID-19. Interviewees reported significant positive stakeholder interaction during the shutdown period, with airports supporting rapidly changing customer requirements, operationally and business-wise. However, each stakeholder organisation then focused on its own distinct challenges. Airport Stakeholder engagement during this COVID-19 period concentrated on short-term planning and objectives. Implications for airport managers are identified. This research makes a theoretical contribution regarding the impact on airports and stakeholders when sudden adverse developments affect the industry. © 2023 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Introduction

The operation of airports makes an important economic contribution (ACI, 2020; Button, Doh, & Yuan, 2010; Kazda, Hromádka, & Mrekaj, 2017) and there is a strong link between airports, airlines and tourism activity (Efthymiou & Papatheodorou, 2015; Halpern & Graham, 2015; Papatheodorou, 2021). Previous assessments considering the effect of shock events on travel have considered responses to terrorism (Corbet, O'Connell, Efthymiou, Guiomard, & Lucey, 2019); communicable diseases (IATA, 2021a); SARS (Loh, 2006); and the fiscal crisis (Harvey & Turnbull, 2009). These events resulted in short-term reductions in traffic volumes, with business travel especially affected. Airlines and airports encountered reduced revenue and increased costs (Voltes-Dorta & Pagliari, 2012). Previous infectious diseases and terrorism necessitated enhanced security and health screening requirements, further increasing airport costs, but these events did not impact on long-term aviation growth trends (Iacus et al., 2020).

After the outbreak of COVID-19, aviation-focused research covered the impact of the pandemic on aviation and travel demand (Andreana, Gualini, Martini, Porta, & Scotti, 2021; Gössling, Scott, & Hall, 2020), airport-specific financial impacts (Forsyth, Guiomard, & Niemeier, 2020), and policy and State Aid factors (Macilree & Duval, 2020). Sun, Wandelt, and Zhang (2020) noted the contribution of global aviation to the rapid spread of the disease, through the industry's global route network. At the same time, aviation supported the movement of valuable cargo such as Personal Protective Equipment (PPE) and vaccines, (IATA, 2021b) and as Suau-Sanchez, Voltes-Dorta, and Cugueró-Escofet (2020) and Serrano and Kazda (2020) highlighted the pandemic had a less adverse impact on cargo operations.

The importance of stakeholder relationships in pandemic times has been highlighted by EUROCONTROL (2020a, 2020b) and Serrano and Kazda (2020). These authors suggest that stakeholders see effective collaboration as essential to the industry's recovery.

* Corresponding author at: Dublin City University, Business School (Aviation), Glasnevin, Dublin 9, Ireland.

E-mail addresses: noel.hiney2@mail.dcu.ie (N. Hiney), marina.efthymiou@dcu.ie (M. Efthymiou), edgar.morgenroth@dcu.ie (E. Morgenroth).

¹ Principal Author.

ery, highlighting the need for dialogue, coordination, greater collaboration and collective learning when dealing with the impact of and recovery from COVID-19. The need for improved air transport stakeholder management has also been identified by Papatheodorou (2021) with respect to destination management organisations, while Thams, Zech, Rempel, and Ayia-Koi (2020) and Paraschi, Georgopoulos, and Kaldis (2019) highlight how an airport business excellence model approach provides insights and benefits to airport stakeholders. Stakeholder management is therefore the theoretical background underpinning this research paper. Stakeholder Theory highlights the potential for creation of organisational value through increased levels of engagement, commitment, trust, innovation, inclusivity and interconnectedness.

Pandemic-related stakeholder activities have not featured as extensively in COVID-19 literature as other aviation topics, while previous stakeholder studies featuring airports have covered matters such as route activity or environmental factors, with less focus on the impact of airport size or ownership type on stakeholder activity. This paper's aim is to analyse stakeholder management activity in Irish airports before, during and after COVID-19. Its key research question asks how Irish airport stakeholder management activity was affected by the COVID-19 pandemic, by assessing activity and relationships before and during this period.

The paper addresses the following research questions:

- Who are the key airport stakeholders and how important are they?
- How often and in what manner does engagement occur?
- How is the value of this activity assessed?
- How has the COVID-19 pandemic affected these stakeholder activities?
- What future changes are likely to take place?

This paper's findings help to better inform scholars and practitioners of airport stakeholder reaction to future events of a similar nature and/or scale. Moreover the study makes a theoretical contribution to research regarding the instant impact on airports when sudden adverse developments affect the industry, and significantly adds to the body of academic knowledge regarding stakeholder management's potential impact on future regional airport activities and performance.

The paper is organised as follows. Section "COVID-19 and aviation" analyses pertinent literature, data and reportage covering aviation and airport-focused COVID-19 activity, while Section "COVID-19 related state aid" assesses Stakeholder Theory generally and in aviation. Section "Research methodology" describes the paper's research methodology, including the semi-structured stakeholder interview approach. The analysis and discussion of findings regarding airport stakeholder activity prior to and since COVID-19 is featured in Section "Findings and discussion", followed by research conclusions in Section "Conclusions".

COVID-19 and aviation

Impact of pandemic on aviation activities and performance

The arrival of the COVID-19 pandemic had a dramatic operating and financial impact on the aviation industry, including airports, resulting in dramatic declines in revenue and profitability (ACI, 2020). This effect was unprecedented in the history of aviation, with a reduction of 2.7bn in world passenger traffic (a decline of 60 %) between 2019 and 2020, an estimated loss of US \$372bn in airline gross passenger revenues and a dramatic operating and financial impact on airports (ACI, 2020; ICAO, 2022). Serrano and Kazda (2021) highlight the massive financial cost and revenue impact of the pandemic, noting that operating costs remained high for some airports, which stayed open to provide pandemic related services, such as passenger repatriation, cargo and aircraft parking/storage.

Warnock-Smith, Graham, O'Connell, and Efthymiou (2021) differentiate between the effect of COVID-19 and previous health crises such as SARS. Airport and airline employees were subject to salary reductions, furlough and, inevitably, layoffs (IATA, 2021c; OECD, 2020). Abu-Rayash and Dincer (2020) highlight unprecedented exceptional sector impacts, population nervousness and anxiety post-Covid 19, Dube, Nhamo, and Chikodzi (2021) consider future economic impacts on organisations affecting their feasibility, noting that if air carriers focus recovery activity at larger airports, this could add to financial challenges already faced by smaller airports.

Forsyth, Niemeier, and Njoya (2020) estimate that for every 5 % fall in Gross Domestic Product (GDP), air transport demand can fall by between 5 % and 10 %. With airports receiving negligible levels of aviation income during the pandemic, and fixed costs typically accounting for at least 50 % of total costs for many airport types (ACI, 2020), the financial effect of COVID-19 adversely impacted the already challenged profitability of airports, especially smaller ones. The collapse in non-aeronautical revenue, identified by Ison, Francis, Humphreys, and Page (2011) as an increasingly important source of airport revenue, exacerbated this challenge and a further economic stress factor is continued relentless pressure by airlines on airports to reduce costs and charges.

Smaller airports relying on tourism are exposed to shock/adverse economic events (Zhang, Zhang, Zhu, & Wang, 2017), impairing their financial resilience (Gudmundsson, Cattaneo, & Redondi, 2021; Nhamo, Dube, & Chikodzi, 2020). Investment requirements associated with upgraded facilities, digitalisation and health screening will challenge weaker airports disproportionately, as governments grapple with ongoing requirements for airport State Aid.

COVID-19 related state aid

Forsyth, Guiomard, and Niemeier (2020) highlight that provision by States of airport financial aid could be justified in exceptional circumstances, if the requirement was due to government action, e.g. no-travel restrictions and international visitor bans. COVID-19 gave rise to a need for significant horizontal and airport-specific vertical State support for the sector (European Commission, 2020). Horizontal State Aid typically falls into categories such as support for employee retention, reduction in turnover compensation, and commercial rate waivers (Truxal, 2020). European Union Member States offered this support across all industries, subject to specific qualification criteria. This practice was supported by European Commission approval of State Aid requests in a speedy manner, given exceptional COVID-19 circumstances (European Commission, 2020). With respect to airport-specific (vertical) State Aid, Table 1 highlights examples of such support approved by the European Commission. The Commission's recognition of the pandemic as an 'exceptional occurrence' enabled it to speedily approve vertical State Aid for airports in many instances.

The Irish Government's Regional Airports Programme supports Irish airports processing <1 m passengers per annum. Prior to the pandemic, this State Aid was provided to Kerry, Ireland West (Knock) and Donegal, private company airports with <1 m passengers and accounting for 3.2 % of 2019 Irish air passenger traffic. During the pandemic, Cork and Shannon Airports were included in the Regional Airports Programme as their passenger numbers fell below the 1 m passenger threshold. Irish State Aid for aviation included a €104.2 m vertical aid/debt facility to its six main airports and €267 m of horizontal supports across the aviation sector. Most vertical airport aid was provided by way of grant rather than loan and airports received more support than airlines (Department of Public Expenditure and Reform, 2021). In addition to the €26 m State Aid scheme highlighted in Table 1, further direct airport grants of €38.2 m were provided, while the Irish State's Infrastructure Fund, ISIF, participated in bond issues of the State-owned daa plc (operator of Dublin and Cork airports) in the amount of €40 m.

Future state support is likely to be more conditional than before and may be more likely to be a last resort, to be considered after other commercial avenues, for example private sector investment, have been exhausted. In their early impact study, Gössling et al. (2020) identified pressure by climate campaigners on Governments to apply conditions covering sustainability/decarbonisation to the provision of pandemic State support for the aviation sector, a point also raised by European Lawmakers (Abnett, 2020). For example, aid for Air France was provided subject to the airline reducing its domestic footprint 'for environmental reasons' by ceasing certain domestic flights from Orly airport, adversely affecting regional airports at the other end of these routes.

Furthermore, State Aid is normally intended for viable organisations perceived to have a reasonable and ongoing chance of survival (Beifert, 2015), without a continuing need for state support. How this characteristic might apply to European airports in receipt of such aid is a key consideration. Financial pressures may be likely to lead to increased levels of future airport closure and consolidation, or a combination of both, albeit from a low current level. European Commission airport aid provisions are due to end in 2024, although prolongation of these arrangements was put under review in 2022, considering pandemic and subsequent events (European Commission, 2022). Airports Council International Europe called for a European aviation (State) relief plan (Butcher, 2020). This support would include measures to restore revenue generation capabilities and support for long-term strategic investments and decarbonisation efforts. However, much State Aid for airports has focused on addressing liquidity challenges, and the long-term ability and willingness of States to sustain such support at 2020/21 levels must be considered.

Airport stakeholder management within aviation ecosystem

The interaction between an airport and the region it serves, though difficult to quantify, is fundamentally important. Airport activity is essential to regional economic performance, through facilitating increased levels of trade, tourism and investment (Bräthen & Halpern, 2012). The Airport Cooperative Research Programme (ACRP) recommends that airports identify arrangements and partnerships that "enhance the airport's functional capabilities, maintain or enhance aviation services, provide a platform for the airport to be an integral part of the broader community it serves, and/or yield "positive economic growth and returns." (Economic Development Research Group, 2015).

One of the most prominent Stakeholder Theory scholars, R. Edward Freeman, defines stakeholders as follows (Freeman, 1984): "Stakeholders are groups and individuals that have a valid interest in the activities and outcomes of a firm, and on whom the firm relies to achieve its objectives." Stakeholder Theory contends that by considering all stakeholders, organisations can help create value, not least of all through increased levels of commitment, trust, innovation, inclusivity and interconnectedness (Freeman, Harrison, Wicks, Parmar, & De Colle, 2010; Freeman, Harrison, & Zyglidopoulos, 2018). Freeman and McVea (2001) emphasise

Table 1
Examples of airport-specific state aid approved by European Commission.[Source: European Commission, 2021].

Scheme	Description
Germany: Covid-19 Airport Scheme (est. €1.36bn)	Compensation for revenue losses; Grants; Loan Guarantees; Subsidised interest rates; Deferrals of taxes and charges
Slovakia: Aid to Airport Operators (€29.8 m)	Damage compensation scheme; 'per airport' aid scheme; Uncovered fixed costs aid scheme
Ireland: State Aid to Airports (€26 m)	Business damage compensation; 'per airport' grant scheme; Fixed costs cash cover
Scotland: Aid Scheme to Scottish Airports (€20 m)	Compensation for revenue losses, effected through airport relief from 'non-domestic rates' tax



Fig. 1. Overview of airport stakeholders.

that a stakeholder approach to strategic management must manage/integrate the relationships and interests of shareholders, employees, customers, suppliers, communities and other groups in a manner that contributes to and helps secure an organisation's long-term success.

The impact of stakeholder engagement on airport activities is under-reported, even though there is an appreciation of its increasing importance in aviation, as outlined by [Schaar and Sherry \(2010\)](#), [Stephenson, Lohmann, and Spasojevic \(2018\)](#) and [Paraschi et al. \(2019\)](#). Fig. 1 shows a broad range of airport stakeholders, whose relative importance is considered later in this paper.

The importance of two-way airport/airline relationships, especially concerning route planning activity, has been noted ([Lohmann & Vianna, 2016](#)). Liberalisation and increasing commercialisation of the airport sector, and the growth of low-cost carriers, has changed the airport/airline relationship ([Bush & Starkie, 2014](#); [Graham, 2009](#)). [Gillen \(2011\)](#) argues that effective stakeholder engagement can help parties develop partnership agreements instead of the more adversarial 'if you win, I lose' approach. [Cepolina and Profumo \(2011\)](#) argue that the most critical strategic driver for regional airports is the creation of social benefits.

Triangular relationships amongst airports, airlines and destination organisations or regional municipal authorities have elements of interdependence ([Levy, 2017](#); [Papatheodorou et al., 2019](#)). [Amaeshi and Crane \(2006\)](#) identify stakeholder engagement as a complementary mechanism in supporting 'sustainable airport development'. [Royal Schiphol Group \(2021\)](#) conducts a materiality analysis every three years, consulting airport stakeholders on themes considered most important to this major hub. However, [Graham \(2018\)](#) cautions that while regional authorities and municipalities will focus on achieving local economic benefits, national governments and, for example, the European Union, will consider effective competition and the environment from a wider societal perspective. These approaches have become more relevant as the industry deals with the after-effects of the pandemic, where no single stakeholder has been able to solely determine and control its future path, a scenario previously identified by [Schaar and Sherry \(2010\)](#). Some stakeholders have airport-related objectives which cannot be fully guaranteed or delivered by the airport, for example incoming tourist numbers. Airport stakeholder goals may also conflict with each other, e.g. community concerns regarding emissions and noise vs. a commercial desire to maximise route activity for the benefit of the local economy.

The extent of literature featuring aviation stakeholder activity is relatively constrained to route activity and environmental issues. There is less attention paid to stakeholder management practices themselves, including differences by airport size or ownership, and in particular how COVID-19 affected airport stakeholder engagement. By assessing the impact of the pandemic on Irish airports system and their stakeholder relationships during this period, this paper addresses this research gap.

Research methodology

Context: Ireland and its airports

Given its island nation status, aviation is a key contributor to Irish economic activity. [Hiney, Efthymiou, and Morgenroth \(2020\)](#) highlighted the impact of Irish aviation on the country's economy, contributing €4.1bn to Gross Domestic Product

Table 2
Irish airport passenger volumes 2016–2020.[Source: Irish Central Statistics Office, 2021].

Total passenger numbers handled by all Irish Airports, 2016–2020						
Airport	2016	2017	2018 ^a	2019	2020	% change 2019–2020
Dublin	27,778,888	29,454,474	31,319,419	32,676,251	7,267,240	–77.8
Cork	2,226,233	2,301,450	2,387,806	2,585,466	527,014	–79.6
Shannon	1,674,567	1,599,390	1,677,661	1,616,422	273,585	–83.1
Knock	735,869	748,505	770,908	805,443	142,532	–82.3
Kerry	325,670	335,480	365,339	369,836	82,959	–77.6
Donegal	44,156	46,514	46,537	48,542	18,067	–62.8
Connemara	21,345	16,437	15,322	15,382	8890	–42.2
Inishmore	12,667	9335	8814	8831	5020	–43.2
Waterford ^b	13,511	0	0	0	0	–
Total	32,832,906	34,511,585	36,591,806	38,126,173	8,325,307	–78.2

^a Minor revisions to 2018 data.

^b No commercial flights since June 2016 from Waterford airport.

(GDP) and supporting 42,000 direct jobs in 2017. Ireland's aviation sector was severely affected by COVID-19 travel restrictions, with 282,000 flights lost from March 2020 to May 2021 (EUROCONTROL, 2021). Table 2 shows 2020 passenger numbers down by >78 % relative to 2019 levels (Central Statistics Office, 2021).

Dublin Airport (part of State-owned Group daa plc) is a large international airport and a European hub for North Atlantic traffic. Cork Airport (also owned by daa plc) is Ireland's second largest airport, with a strong UK and European route footprint. Shannon Airport (part of the State-owned Shannon Airport Group) is a transatlantic gateway for commercial and business air traffic, also providing UK/European routes and supporting dedicated Maintenance Repair and Overhaul (MRO) and cargo activity. Ireland West (Knock), Kerry and Donegal, smaller regional airports on the western side of the country primarily serving UK destinations together with some European activity and two domestic routes, are mostly privately owned. Table 2 shows the extent to which Dublin Airport dominates Irish air traffic (> 85 % of all passengers). Cork, Shannon, Ireland West and Kerry airports compete with one another, and with other European airports, for new airline route business. Given Ireland's small size and strong intercity motorway system, Dublin Airport, with its comprehensive route network, is an attractive option for passengers from the catchment areas of the smaller Irish airports (Bus Eireann, 2020). Indeed, Dublin's strong market position has been the subject of much comment from local representatives, including in Cork, where its sister airport is located, and Limerick, the closest large city to Shannon (Caden, 2022).

Irish airports reported significant financial losses over the first year of the pandemic. daa plc (operator of Dublin and Cork Airports) lost €280 m in 2020, while Shannon Airport's parent group lost €28 m during this period (daa plc, 2021; Shannon Group plc, 2021).

Research approach

To provide context for the challenges facing Irish airports as explored during the interview process, data, reports and commentary from industry bodies such as EUROCONTROL, European Commission, Airports Council International, and the International Air Transport Association, together with country-level information from statistical agencies, were analysed (Appendix 1). Semi-structured interviews were conducted with sixty-four (64) Irish airports and airport stakeholders between October 2020 and February 2021 (see Table 3), to gather and assess airport stakeholder perspectives prior the pandemic, an understanding of actions taken during the COVID-19 period and 'looking forward' viewpoints.

Table 3
Research interviewees by type.

Stakeholder type	Number of interviewees
Airlines	9
Representative bodies	9
Tourism sector	5
Maintenance, repair and overhaul (MRO), cargo, ground handling, airport retail	9
Local and central government; state agency	6
Aviation regulators	5
Other (e.g. sustainability, business aviation, business user, academic)	8
Airports	13
Total	64

a: Stakeholder Theory Framework Components

Theoretical Component	Description
Primary vs Secondary Stakeholders identification. Further categorisation, e.g., public vs private	<ul style="list-style-type: none"> • Primary stakeholders – material involvement, contribution, impact • Secondary stakeholders – do not contribute as directly or materially to a firm’s creation of value
Core stakeholder management: concepts assessment	<ul style="list-style-type: none"> • Focus and foundation • Purpose and creation of value • Reciprocity • Convergence (over time) of stakeholder interests
Stakeholder engagement methodologies, e.g. ‘Level of influence vs frequency of contact’.	<ul style="list-style-type: none"> • Level of engagement and frequency of contact a function of level of importance • Various airport stakeholders will interact directly with each other
How to assess the value of stakeholder management, e.g., ‘pay-off’ matrices	<ul style="list-style-type: none"> • Identification of stakeholder value and how to improve this • Management strategies • ‘Pay-off’ matrix processes
Impact of COVID-19 on airport stakeholders and activities	<ul style="list-style-type: none"> • Effect of pandemic on airport and stakeholders • Current actions to mitigate same • View on recovery timeframes

[Sources: Freeman, Harrison and Wicks (2007 and 2010); Philips (2003); Freeman, Harrison and Zyglidopoulos (2018). Adapted by authors.]

b: Interview Structure and Alignment with Stakeholder Framework above

Interview Framework Section	Interview Topic Areas
Stakeholder Activity in Normal Times: <i>Primary vs Secondary Identification</i> <i>Further Categorisation</i>	<ul style="list-style-type: none"> ○ Airport Detail, Interviewee responsibility, Experience level ○ Who are the main airport stakeholders? ○ What is their level of importance?
Stakeholder Activity in Normal Times <i>Core Stakeholder Management</i> <i>Stakeholder Engagement Methodologies</i>	<ul style="list-style-type: none"> ○ What type of engagement is undertaken? ○ Nature and frequency of contact ○ Key Engagement Objective – General / Stakeholder Specific ○ Structured / Unstructured? ○ Frequent / Irregular?
Stakeholder Activity in Normal Times <i>Assessing Value of Stakeholder Management</i>	<ul style="list-style-type: none"> ○ How is success/effectiveness assessed/measured? ○ Review of overall approach?
Stakeholder Engagement During COVID-19 Pandemic <i>Impact of COVID-19 on Airport Stakeholders and Activities</i>	<ul style="list-style-type: none"> ○ Nature of impact ○ Recovery Path since March 2020 ○ Future Stakeholder Engagement Impact
Airport Stakeholders Looking Forward Beyond Pandemic <i>Impact of COVID-19 on Airport Stakeholders and Activities</i>	<ul style="list-style-type: none"> ○ The Future ○ Recovery Time frames ○ Key expected airport developments ○ Stakeholder Role - Recovery ○ Additional Comments

[Sources: Freeman, Harrison and Wicks (2007 and 2010); Philips (2003); Freeman, Harrison and Zyglidopoulos (2018). Adapted by authors.]

Fig. 2. a: stakeholder theory framework components

b: interview structure and alignment with stakeholder framework above.

[Sources: (Freeman et al., 2010; Freeman et al., 2018; Freeman, Harrison, & Wicks, 2008; Phillips, Freeman, & Wicks, 2003). Adapted by Authors].

Interviewees included airlines, ground operators, ancillary and retail organisations, government, business groups, and airports themselves. Participants typically held executive or senior-level roles in their organisations, for example Airport and Retail General Managers, Airline Country Heads and Operations Directors, Heads of Business Associations and senior Government and Regulatory Officials. Most interviews took place by video call (Zoom or MS Teams platforms), and their average length was just over 60 min. No face-to-face meetings were held, due to prevailing pandemic restrictions.

Airport and stakeholder interviews were designed and conducted using stakeholder management framework elements (Freeman et al., 2008, 2010; Freeman et al., 2018; Phillips et al., 2003), as adapted by the authors. This approach, outlined in Fig. 2a, featured stakeholder identification/classification, methods of engagement and measures of success. Interviews covered (a) the pre-pandemic period, (b) engagement during and following the initial shutdown period, and (c) future COVID-19 events, their effect on stakeholder activity/relationships, and future expectations (Fig. 2b).

Findings and discussion

This section presents feedback from airport stakeholder interviewees covering the periods before the pandemic, during the outbreak, and expected future activity. The airport relationship is at the centre of these results, although some interviewees described their stakeholder activities from an overall organisation perspective. Fig. 3 provides a summary of these observations, based on this assessment framework:

1. Airport stakeholder activity in normal times (before COVID-19 pandemic),
2. Stakeholder engagement during the initial COVID-19 pandemic period
3. Airport stakeholder activity: A future beyond the pandemic

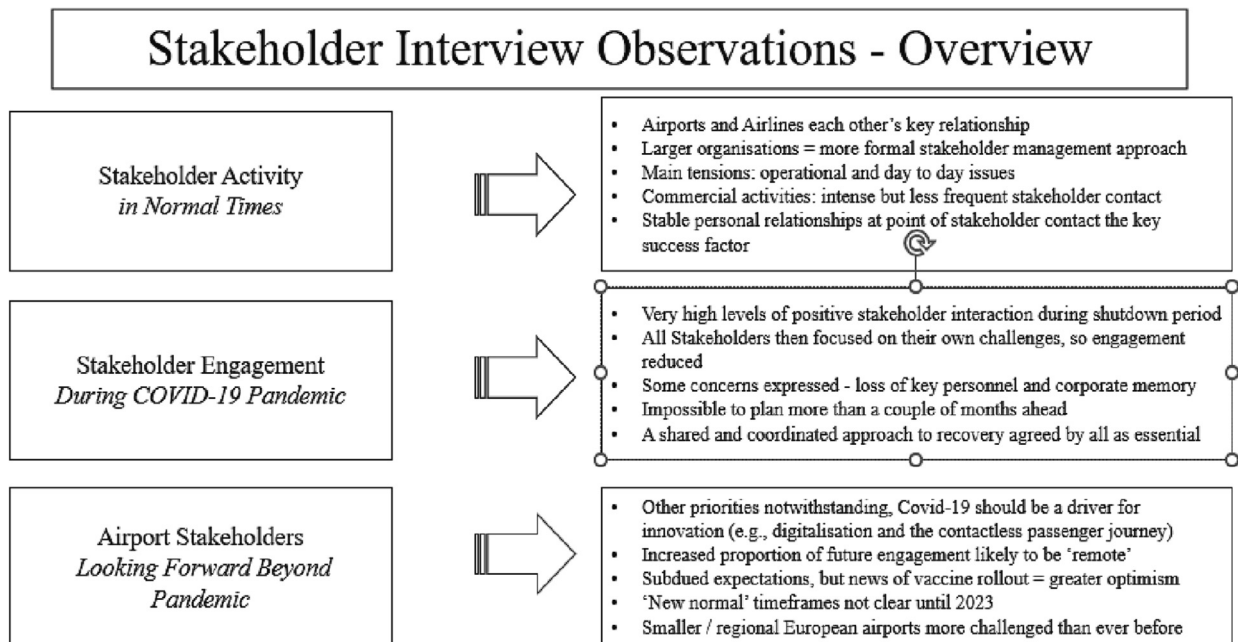


Fig. 3. Airport stakeholder interviewee observations – summary overview.

Section 1 (“Airport stakeholder activity in normal times” below) assesses airport stakeholder activity with reference to the theoretical framework described above. Section 2 focuses on stakeholder activity and industry observations during the COVID-19 pandemic, with section 3 covering future expectations and likely stakeholder impacts.

Airport stakeholder activity in normal times

This sub-section describes airport stakeholder identification and classification, stakeholder engagement processes and how success was assessed in the pre-pandemic period (Fig. 4).

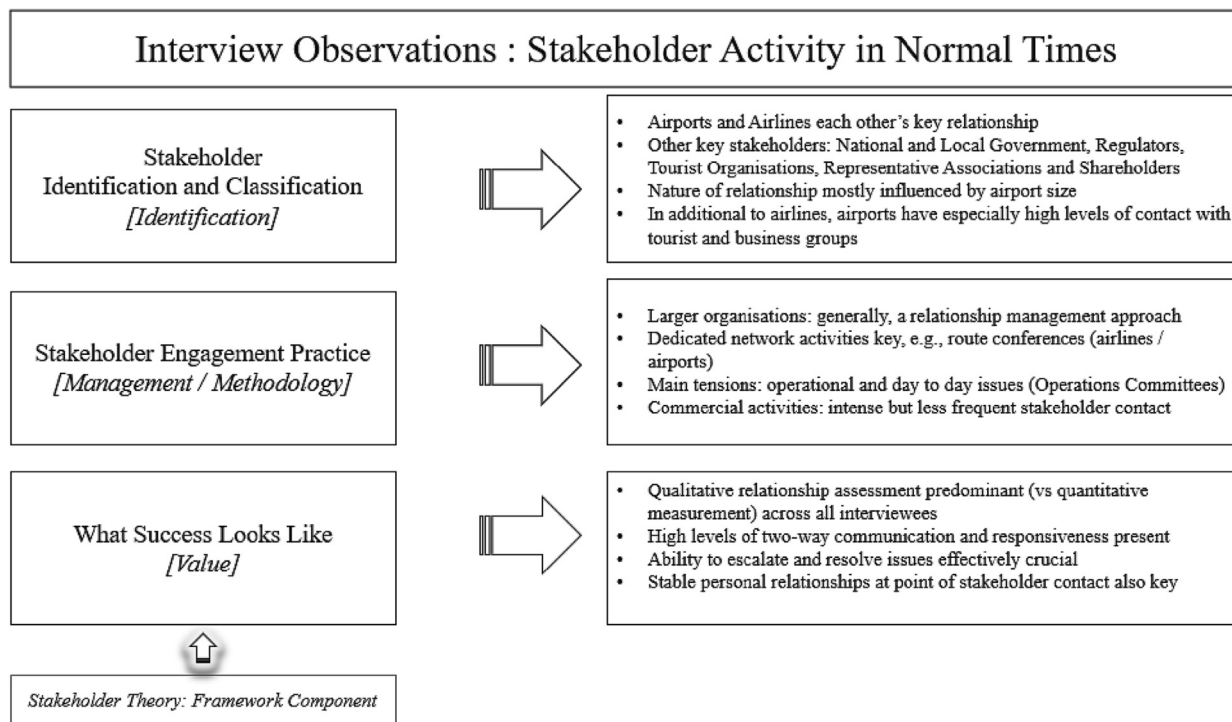


Fig. 4. Airport stakeholder activity in normal times.

Stakeholder identification and classification

Airports, airlines, and other on-site stakeholders identified the primary significance of the airport/airline stakeholder relationship. From an airport and airline perspective, other key stakeholders identified included national and local government, regulators, tourist organisations, representative associations and airport owners/shareholders. Triangular stakeholder engagement was also observed, most usually involving municipal and destination management organisations alongside airports and airlines with a common purpose, i.e., route development influencing local economic/tourist activity. Some airport stakeholders discharge duties for other stakeholders, e.g. ground handlers for airlines, also necessitating triangular contact. Larger airport and business organisations, having a structured approach to engagement, had a more nuanced view of the value of each relationship. For airlines operating internationally and/or away from their home base, ground handling relationships in larger airports were as meaningful as those with the airport itself. Airports or airlines, and sometimes both, were prevalent in terms of importance for all stakeholders interviewed.

Stakeholder engagement processes

While no single approach concerning stakeholder activity was observed, most organisations had a specific contact person with responsibility for airport relationships. The most structured approach to regular airport stakeholder management, involving key account management and regular documented meetings, was observed in larger organisations, particularly airlines, business representative associations, policymakers, and the airports themselves. This finding was consistent, irrespective of industry sector or airport ownership type. These entities operated structured processes, having designated personnel for key relationships and formal methods of recording meeting minutes and subsequent follow-up actions. Less frequent high-level stakeholder engagement usually occurred on an ad-hoc basis, for example at a contract signing ceremony or route announcement. Smaller airports and airlines had prominent levels of contact with local tourist and business groups. Airline stakeholder interviewees suggested that the nature of their airport engagement was determined more by the size (scale) of the airport than its ownership type (the interview set comprised a mix of private and publicly owned airports).

The most formal Irish airport stakeholder forum mentioned, especially in larger airports, was an Airport Operators Committee. Such groups meet regularly (weekly) and consider essential matters affecting the smooth running of the airport, especially at peak times. Operational and day-to-day issues in a busy airport environment contribute to short term stakeholder challenges and tensions which a group like this seeks to address. Airport retailer and airline engagement regarding commercial matters is less frequent, with intense interaction experienced at contract and route negotiation or renegotiation time. Across all stakeholder groups, senior-level bilateral contact is usually ad-hoc (route launch or new retail franchisee) rather than scheduled (annual review meeting/lunch).

Other dedicated stakeholder activities highlighted by interviewees include international route conferences, which are key forums for airports and airlines pursuing increased network connectivity, and which are sometimes also attended by business and tourist organisations. One Chamber of Commerce seeks to include a contrarian voice on stakeholder groups, finding that this approach helps improve the robustness of its outputs, including recommendations. It was also interesting to note from some interviewees the airport-focused engagement that non-airport stakeholders such as chambers and tourist bodies had with each other. Airline and other stakeholders with

international airport operations noticed no discernible difference in engagement practices with Irish airports, relative to airports in other countries they are active in.

What success looks like

Existing airport relationships were considered to be positive by each category of stakeholder interviewed, irrespective of size or ownership type. However, tensions inevitably arose around day-to-day challenges such as operational issues at peak traffic times, more notably in Dublin than at other airports.

Qualitative evaluation is a key determinant of stakeholder effectiveness assessment for airport stakeholders and managers interviewed for this research. Airline and retail interviewees stated that while their assessment of the effectiveness of airport stakeholder relationships is not formally measured (by them), positive indicators include effective two-way communication and responsiveness, including the successful use of diplomacy and pragmatism when addressing relationship tensions. Interviewees also emphasised the importance of stable, robust and effective personal relationships between airports and their stakeholders. However, aeronautical and regulatory interviewees pointed out that in operational and highly regulated areas affecting airport operations, the (sometimes legal) requirement for parties to adhere to well-defined compliance requirements partly reduced the importance of healthy personal working relationships during such engagement.

The personal dimension to airport stakeholder relationships and the ability to escalate and resolve airport issues was nonetheless consistently highlighted as essential to effective day-to-day operations by airlines, ground handlers and retailers. State entities and local organisations emphasised the importance of the airport relationship to support inward investment activity, both domestic and foreign. Most interviewees, especially those more directly involved in airport operations, emphasised the positive effect of strong airport support during challenging circumstances. Smaller stakeholders, such as airlines operating single routes or individual retail outlets, acknowledge that airports will be more mindful of key and larger stakeholders and their requirements; however, a successful relationship means that these smaller entities do not feel disadvantaged by this reality.

The lack of measurement/assessment criteria for stakeholder engagement noted during interviews has also been observed by [Malvey, Fottler, and Slovensky \(2002\)](#), who highlight the risk that stakeholder activity may appear unproductive or unsuccessful without such measures, even if this is not the case. Measurement of the effectiveness of stakeholder management processes is evolving, with a recent systematic literature review ([Pedrini & Ferri, 2019](#)) identifying a progressively prominent role for more structured stakeholder management in organisations, with increasing pressure to develop a capability to manage such stakeholders digitally. [Ackermann and Eden \(2011\)](#) highlighted the contribution of stakeholder management to the robustness of

Airport Stakeholder Analysis

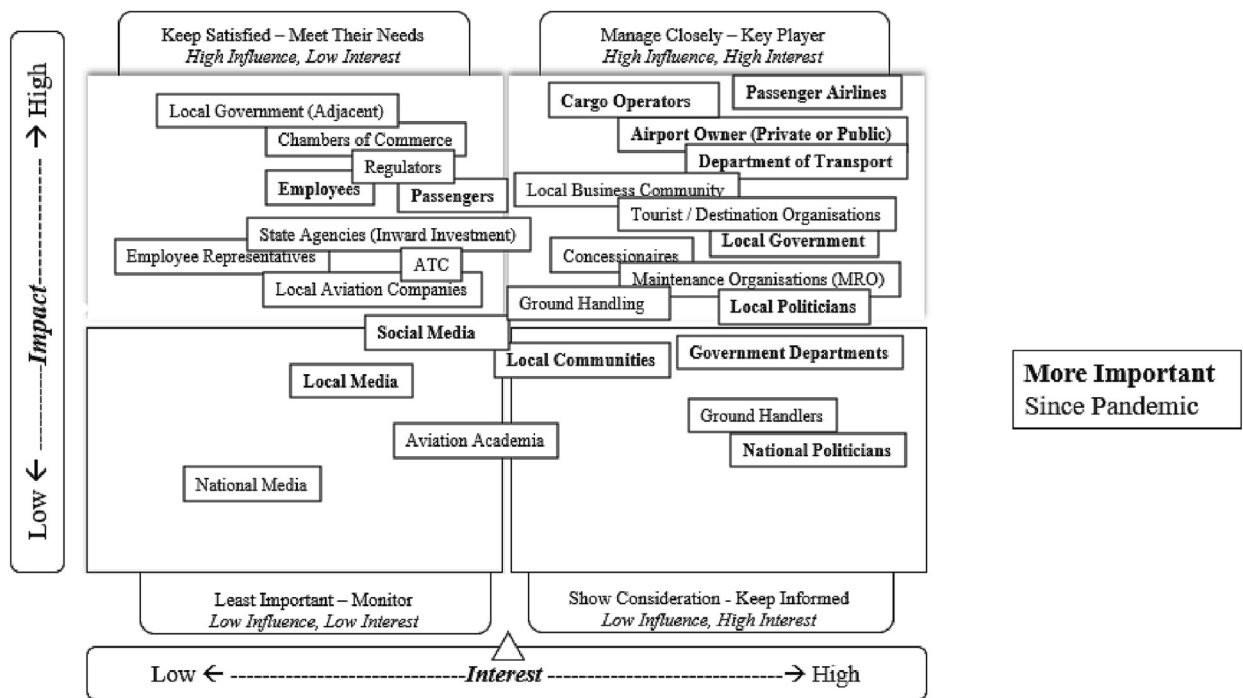


Fig. 5. Airport stakeholder analysis.

[Sources: Mendelow, 1991; Ackermann & Eden, 2011; Friedman & Miles, 2002; Adapted by Authors].

strategies developed by top management teams, presenting a power/interest grid comprising four stakeholder categories: subjects and players (high interest/stake) and crowds and context setters (who may play a vital future role but do not do so now). Other research (Friedman & Miles, 2002) suggests that stakeholder theory might be strengthened by differentiating between various stakeholders, identifying those with more significant levels of influence and understanding how this might change over time.

Fig. 5 below reflects the authors' assessment of airport stakeholder importance during the period of their research into this topic, informed by this semi-structured interview process and an assessment of previous research in this area. While very few stakeholders are considered unimportant, and this is reflected in the matrix, those considered by the authors as having increased in importance since the onset of the pandemic are highlighted **thus**.

Stakeholder engagement during COVID-19

This paper section describes activities and airport stakeholder interviewee perspectives during the initial COVID-19 outbreak and the subsequent 'living with the pandemic' period (Fig. 6).

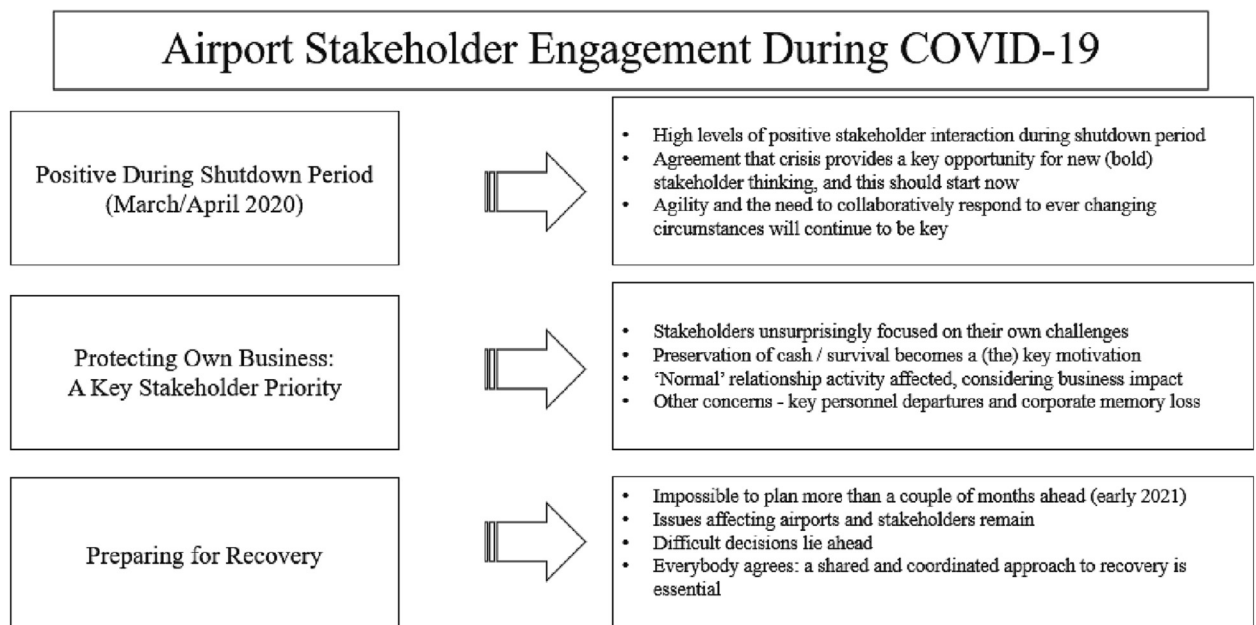


Fig. 6. Airport stakeholder engagement during COVID-19.

COVID-19 airport shutdown period

Airport stakeholders observed extremely high levels of collaboration throughout the pandemic shutdown period (March–April 2020). The strong levels of solidarity observed and experienced nationally were mirrored within airport relationships, ensuring that airport shutdown activities were completed speedily and safely. Agility and the need to respond quickly and collaboratively to circumstances were vital during the immediate post-lockdown period. Airports supported rapidly changing stakeholder requirements, particularly operational priorities associated with airline repatriation of passengers, staff safety and aircraft parking/storage. Issues that may have seemed intractable pre-Covid were easier to address, with a strong bias for action. Cargo activity was transformed, with new routes launched to ensure collection and delivery of Personal Protective Equipment (PPE), requiring significant and intense engagement between airports, airlines (cargo and passenger) and other aviation stakeholders such as regulators. Interviewees also observed greater collaboration with other airport stakeholders (e.g. business representative groups) during this time.

Stakeholders protecting their own business

Notwithstanding the high levels of engagement described above, protection of their own business was a key focus for almost all airport stakeholders, and the airports themselves, during the period following shutdown. This process was described by one airport executive as 'everybody manning their own lifeboat.' Airline and other stakeholders, driven by the need to deal with the business impact of the pandemic, focused their actions on specific challenges faced by their organisation during this time, in particular tough decisions necessary to protect their company, staff and customers as much as possible. Airports, airlines and other stakeholders responded in an analogous manner to these pandemic challenges, a point also noted by Albers and Rundshagen (2020). Preservation of cash, employee engagement and maintenance of operational capability were identified as major organisational priorities. This

factor, and the absence of personnel in airports, resulted in far less interaction following the shutdown. Stakeholder 'check-ins' did however continue, albeit infrequently, using video conferencing platforms in most instances, although one airport manager highlighted a stakeholder preference for written updates rather than video meetings. Only the most essential airport, airline and ground handling staff remained on site, often to facilitate operations focused on pandemic support, for example transport of medical supplies.

When discussing this period with interviewees, the phrases 'Cash is King' and 'Survival is Key' were used by many commercially focused stakeholders. Operations activity associated with retailers anticipating and managing commercial throughput and capacity had to be temporarily discarded (one concessionaire stated that 'science went out the window'). The normal interplay and 'give and take' of stakeholder relationships was paused. One airport business stated that the sheer scale of what happened meant that it was difficult to maintain regular engagement practices. Business 'just disappeared' and 'no amount of engaging with stakeholders or the airport will change that,' according to a retail stakeholder. Non-aeronautical organisations with variable contracts, where much of the payment to an airport operator was determined by passenger throughput, were not as severely affected as they might have been if such contracts had a high fixed-price element. While the initial focus of airports and these stakeholders was on the short-term stabilisation of their organisations, many believed that difficult future decisions would need to be taken as the full effects of the pandemic emerge, operationally and fiscally. With respect to financial obligations, some stakeholders experienced creditor accommodation and forbearance, but not necessarily forgiveness, during this phase of the pandemic.

All interviewees observed differences in the management of regulatory vs other relationships as described, with the formality and robustness associated with regulated relationships maintained, albeit more virtually, in the face of crisis. In addition, stakeholder relationships involving representative associations and government/regulators were affected differently from the above commercial ones. Chambers of Commerce, for example, expended significant effort in becoming strong proponents for the return of air travel. Their assistance for local airports, both publicly and behind the scenes, became louder. This advocacy involved statements of support and participation in Government task forces focused on aviation and tourism recovery alongside aviation organisations and public representatives. One national business group positioned itself as a conduit of pandemic related information flow between Government and its members. This intense activity included engagement directly or as part of task force groupings to parliamentarians, policymakers and the media, to accelerate the 'opening up' of international travel to and from Ireland.

Living with COVID-19

Interviewees continued to hold elevated levels of concern about the future, with ongoing uncertainty giving rise to difficulties and making it almost impossible to plan ahead, even for short-term activity (weeks and months). There was broad acceptance that 'we have to learn to dance with the virus for now.' However, the expected emergence of COVID-19 vaccines improved interviewee sentiment towards the end of the research period.

Some airport-based stakeholders expressed significant concerns regarding the loss of key personnel and corporate memory, especially in airports themselves, as organisations reduced headcount and lost staff with extensive experience, affecting tacit knowledge and organisational memory. Some interviewees noted that regulators sought evidence from regulated aviation entities regarding actions to address any potential adverse impact arising out of key staff departures.

When discussing future operational and commercial challenges, there was a strong but unsurprising interviewee consensus on the need for high levels of post-pandemic stakeholder collaboration and cooperation.

A future beyond the pandemic: interviewee stakeholder perspectives

This section describes sentiments expressed by interviewees with respect to COVID-19 and the future of the aviation sector (Fig. 7). Overall sector sentiment ranged from sober pessimism to unbridled optimism. Commentary on expected activity levels in the short-term was more cautious than when interviewees considered longer time periods.

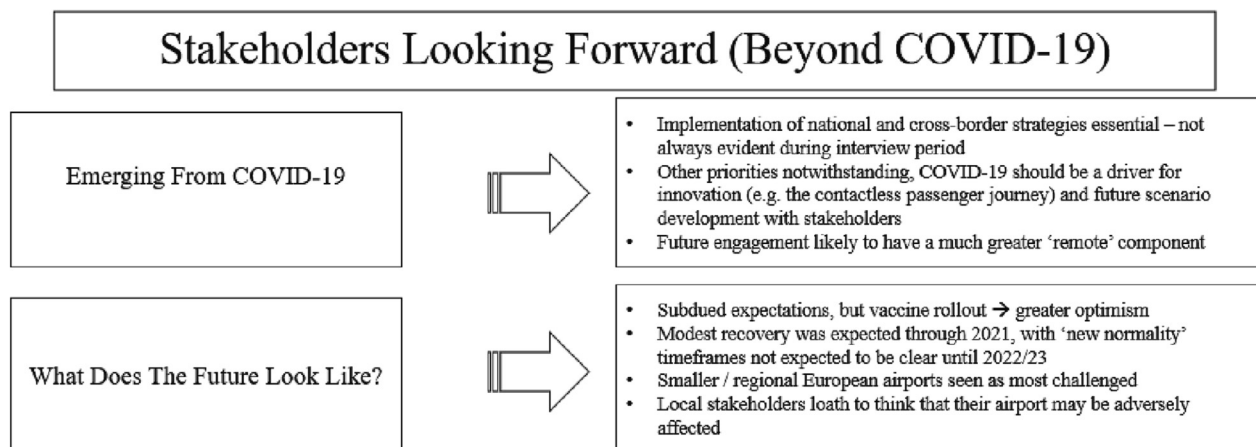


Fig. 7. Airport stakeholders looking beyond pandemic.

Emerging from COVID-19

All interviewees emphasised the importance of aviation and air travel to Ireland (95 % of international visitors arrive this way) when considering emergence from the impact of the pandemic. Most non-governmental stakeholders commented on the absence of a coherent strategy – nationally and internationally – to deal with COVID-19. They were critical of sporadic, inconsistent, and uncoordinated lockdown decisions and believed that a shared European approach, for example a unified method of airport health verification activity, was vital.

Interviewees directly involved in airport processes, such as airlines and ground handlers, believed that COVID-19 could be a driver for innovation and creative thinking. For example, some airline stakeholders believed that it was a suitable time for airports to explore future scenarios and innovation opportunities with them and on their behalf, including post-pandemic route planning, increased digital enablement, development of the contactless passenger airport journey and an accelerated increase in cargo and logistics activity. These stakeholders acknowledged that the need for financial prudence during crisis times might make this goal problematic in the short term; however they believed that this action was necessary, because ‘crisis brings opportunity.’

What does the future look like?

Most participants had a negative view of industry prospects when interviewed, due to the pandemic's devastating impact, believing that sentiment would remain downbeat for some time. Despite these subdued expectations, however, interviewees believed that the then emerging vaccine rollout plans and health passport possibilities provided grounds for optimism. They expected modest recovery by the end of 2021, with ‘new normal’ time periods clearer in 2022/23. Airlines and airports believed that Visiting Friends and Relatives (VFR) traffic, essential business trips and short to medium-haul holiday travel were likely to recover before discretionary business travel and long-haul. Interviewees believed that intra-company business travel might not ever recover fully, due to videoconferences emerging as an alternative to such travel.

Future airport stakeholder relationships

Airline and cargo interviewees expected airports to take a lead role in anticipating the potential for resumed and new route activity, and more efficient airport operations, as described above.

Many full-service and hybrid airlines were likely to focus recovery activity on hub and trunk routes using larger airports. A long-term decline of airline activity in smaller airports, caused for example by much-reduced route frequency, would adversely affect their operational efficiency, exacerbating cost pressures. These factors emphasised the need for an even greater airport focus on the primary airport/airline stakeholder relationship. Financially stressed airports will need to balance a financially attractive airline charging structure with the ability to attract increased route activity and increase per passenger non-aeronautical revenue.

Sustainability and environmental challenges were highlighted intermittently during interviews; however the topic was recognised as an increasingly crucial factor for aviation stakeholders. Most airports now have a dedicated sustainability strategy and manager. State Aid approvals for airlines included environmental clauses, and Irish airport grants also highlighted support for sustainability investments. As consideration of environmental impacts intensifies, policies covering airport congestion and emissions are more likely to be considered holistically through a structured stakeholder approach, as suggested by Efthymiou and Papatheodorou (2020).

Most airport stakeholder engagement activities across all sectors were conducted virtually/remotely during the research period, other than essential on-site matters. Interviewees did not expect a reversal of this trend in the short term.

A challenging future?

During 2021, when the pandemic was ever present, Irish air traffic levels were expected to return to 2019 levels by 2025 (EUROCONTROL, 2021). The rate of such recovery was likely to be most affected by factors such as future pandemic policies and the impact of remote working trends on international business travel. A twin-track recovery scenario was seen as with Dublin Airport recovering more strongly than regional airports (Department of Public Expenditure and Reform, 2021).

In a post-pandemic environment, the financial challenges faced by Irish and European airports will need to be considered in circumstances where many industry sectors simultaneously sought State support. Larger airport stakeholders believed that difficult future decisions affecting airports and their structures might be unavoidable, given the potential enduring economic ‘hit’ associated with COVID-19. Most such stakeholders would prefer not to countenance the possibility of anything unfavourable happening to their airport, however. Airports facing these challenges are also likely to be strongly supported by business organisations, public representatives, and their communities. Such representations are likely to focus on the local economic contribution of such airports, including indirect and catalytic effects (Kazda et al., 2017).

Regional airports usually represent a significant economic unit within their geographic area and are inclined to be actively involved with business groups, especially Chambers of Commerce. Large employers in regional towns are also vocal in their support for their local airport. This advocacy also occurs in larger airports, however the level of engagement with smaller airports appears proportionally greater. One regional interviewee contended that ‘use the route or lose it’ messaging to local airport stakeholders, including potential passengers, was never more important when seeking support from local communities, politicians and businesses.

The importance of collaboration when dealing with post-pandemic recovery challenges, across the industry and externally, was unsurprisingly emphasised regularly by all stakeholders, who strongly argued that a shared, collaborative and coordinated approach to recovery activity was essential.

Conclusions

This paper has investigated how the COVID-19 pandemic initially affected airport stakeholder relationships and engagement, by studying Irish airports and stakeholder relationships before, during and in the aftermath of this period. The study considerably adds to current airport industry research by investigating and highlighting responses and actions taken by airports and stakeholders during the period following the arrival of the pandemic. This research also significantly contributes to the study of stakeholder management by informing the theory with activities and responses to rapidly changing events during emergency periods and their aftermath, including how relationships perform under pressure, both with respect to time and event materiality in aviation and generally. Stakeholder management is the theoretical background underpinning this research paper and this study has furthered this field by developing the theoretical analysis to allow for an assessment of the stakeholder management's potential impact on future regional airport activities and performance.

While the nature and management of airport stakeholder engagement varied from airport to airport, the perceived strength of personal relationships was key to assessing all such arrangements, which were regarded as generally positive, with central tensions focusing on day-to-day operations. Irish airports responded well to the critical requirements of their stakeholders during the key shutdown period, when restrictions were suddenly placed on air travel services. However, stakeholders focused on their own survival priorities following this initial period, with engagement significantly reduced in frequency and intensity, and becoming mostly remote in nature after shutdown. A shared and coordinated approach was seen as essential by many interviewees, though challenging to achieve.

Even before the arrival of COVID-19, Efthymiou and Papatheodorou (2019) argued the more complex business models of airports and airlines in recent years represented an opportunity for the nature of stakeholder relationships to move from transactional to transformational. This trend towards a more strategic relationship was seen as essential, especially by airline stakeholders, as these parties charted a business recovery roadmap following the impact of the pandemic. Previously, Verbeke and Tung (2013), reviewing evolutionary and transformational levels of stakeholder management phases (and the time between these phases), identified that a meaningful change in stakeholder pressures – such as those resulting from the pandemic – required a more transformational approach to stakeholder activity.

Post pandemic market trends, combined with an assessment of airline and airport interviewee feedback, suggest that airline power will further increase within the airport/airline stakeholder relationship during the coming years. For example, non-aeronautical revenues were affected by lower passenger numbers and reduced footfall in airport retail units. While the recovery and increase in passenger volumes is an agreed objective, and would assist growth in such revenues, the need to resolve airport and other stakeholder trade-offs (e.g. reduced charges and fees for increased business) was acknowledged. A key distinction between airlines and other stakeholders is that airline activities create the demand for airport services, resulting in value not just for the airport itself but also for other stakeholders such as retailers. This is a key factor for those peripheral airports where government subsidised routes account for a significant portion of their business. Airports continue to face pressure from increasingly demanding airlines to keep charges low, even though European carriers received more State Aid than airports. Suau-Sanchez et al. (2020) see regional and secondary airports as suffering most, given the initial recovery focus on larger markets and routes and, consequently, larger/hub airports. This trend would be likely to continue and further increase the long-term migration of air traffic from regional to main airports, as previously reported by Lian and Rønnevik (2011) and Dobruszkes, Givoni, and Vowles (2017).

The reduction in airport and airline workforces disrupted many stakeholder relationships, with the loss of key staff and organisational knowledge a concern. Airport stakeholders expect future strategic collaboration in support of a changed post-pandemic environment, for example route development and passenger flow initiatives. Concerns were expressed regarding potential post-pandemic decisions affecting airport structures and viability. Stakeholders wanted greater industry, national and European coordination, believing that a shared and collaborative approach to recovery from the effects of the pandemic is essential. An often-expressed sentiment was the expectation of enduring change (a prescient observation), including greater levels of virtual engagement, greater collaboration and the unknown nature of the 'new normal.' It was highly beneficial to have the opportunity to obtain these airport stakeholder research perspectives, with respect to COVID-19 impacts, in real-time.

Given Ireland's status as an island nation and its reliance on air transport for 95 % of all international passenger travel, airlines, airports and local political stakeholders became increasingly vocal in their calls for a return to the air during the research period (O'Halloran, 2021). They argued that national authorities lagged their European counterparts, citing the lack of response to an aviation recovery stakeholder group established by the Minister for Transport in mid-2020, with many recommendations not acted on for a considerable period. European Union leaders eventually determined that international travel could resume by 19th July 2021, even though some markets such as the USA remained closed to European travellers after this period.

The inevitable reduction in disposable income if a sustained recessionary environment follows on from the pandemic, combined with pro-environment policies and trends favouring decarbonisation and deglobalisation, could influence new consumer behaviours, which could slow the pace of any recovery in air travel. Such trends would further increase the financial challenges facing Irish and other airports. However, while the financial resilience of airports, particularly smaller ones, has been regarded as fragile for some time, very few European airport closures were reported over the five-year period preceding the pandemic. Despite the additional fiscal challenges described above, only a modest reduction in the number of European airports over the next few years is expected, given the expected extent of resistance from key stakeholders, including public representatives.

This research shows that a greater proportion of future stakeholder management engagements are likely to take place remotely. Further airport stakeholder research will have the opportunity to identify the practical and theoretical impact of this and other changes to the nature of stakeholder management activity caused by COVID-19 which may prove enduring, and

those that might be likely to revert to pre-Covid patterns as industry normality returns. The importance of collaboration amongst airport stakeholders, including activities not directly involving the airport itself, has also been highlighted. The relative importance of these airport stakeholders in a more subtle and nuanced manner, as highlighted by Kivits (2013), is likely to increase, for example the nature and extent of bilateral or triangular relationships amongst specific airport stakeholders such as airlines, destination management organisations and business representative groups.

This research has also contributed to stakeholder management research by highlighting the need for organisations to become more multi-directional, for example with respect to airports increasingly anticipating and responding to trends and developments affecting airlines, given increasing airport power arising out of the effects of the COVID-19 pandemic. The paper has outlined the desirability of collaboration and effective relationships, as Irish aviation stakeholders managed the effects and aftermath of the COVID-19 pandemic and planned the sector's recovery from the most significant crisis faced by the aviation industry.

CRediT authorship contribution statement

Noel Hiney: Conceptualization, Investigation, Writing – original draft, Writing – review & editing. **Marina Efthymiou:** Conceptualization, Writing – original draft, Writing – review & editing. **Edgar Morgenroth:** Conceptualization, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

The principal author (Noel Hiney) received funding support from Shannon Group plc, via Dublin City University, to support his PhD research.

Appendix 1. Qualitative research process – approach and sources

Approach	Sources
Information gathering: [formal sources and industry reports]	International Air Transport Association, Airports Council International, Official Airline Guide, EUROCONTROL, International Civil Aviation Organisation, National Statistical Offices.
Information gathering: media and news	Print and broadcast media, investor reports, wire services.
Public statements/opinion	Professional service providers, industry practitioners and sector webinars (Official Airline Guide, Aviation Week, Centre for Aviation, EUROCONTROL, German Aviation Research Society).
Literature	A considerable amount of Covid-19 related literature, both generally and aviation-specific, has been published since 2020, supplementing related literature covering aviation/airport characteristics and stakeholder factors.
Stakeholder insights in real-time	Semi-structured airport stakeholder (executive and manager) expert interviews.

Appendix 2. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.annals.2023.103622>.

References

- Abnett, K. (2020). 'EU accused of risking climate goals with "no strings attached" state handouts', Reuters, 24 April. Available at: <https://www.reuters.com/article/us-health-coronavirus-eu-climate-idlNKN2262DW> (Accessed: 5 July (2021).)
- Abu-Rayash, A., & Dincer, I. (2020). Analysis of mobility trends during the COVID-19 coronavirus pandemic: Exploring the impacts on global aviation and travel in selected cities. *Energy Research & Social Science*, 68, Article 101693.
- ACI (2020). *The bare bones – The economics of airport infrastructure amidst the pandemic*. Available at: <https://blog.aci.aero/the-bare-bones-the-economics-of-airport-infrastructure-amidst-the-pandemic/> (Accessed: 3 July (2021).)
- Ackermann, F., & Eden, C. (2011). Strategic management of stakeholders: Theory and practice. *Long Range Planning*, 44(3), 179–196.
- Albers, S., & Rundshagen, V. (2020). European airlines' strategic responses to the COVID-19 pandemic (January–May 2020). *Journal of Air Transport Management*, 87, 101863.
- Amaeshi, K. M., & Crane, A. (2006). Stakeholder engagement: A mechanism for sustainable aviation. *Corporate Social Responsibility and Environmental Management*, 13(5), 245–260.
- Andreana, G., Gualini, A., Martini, G., Porta, F., & Scotti, D. (2021). The disruptive impact of COVID-19 on air transportation: An ITS econometric analysis. *Research in Transportation Economics*, 101042.
- Beifert, A. (2015). Business development models for regional airports—case studies from the Baltic Sea region. *Journal of Security & Sustainability Issues*, 5(2).

- Bråthen, S., & Halpern, N. (2012). Air transport service provision and management strategies to improve the economic benefits for remote regions. *Research in Transportation Business & Management*, 4, 3–12.
- Bus Éireann (2020). *Get to the airport ready to fly with Expressway*. Bus Éireann YouTube Channel. Available at: <https://www.youtube.com/watch?v=4VqbaU62ibl> (Accessed: 26 January (2023).)
- Bush, H., & Starkie, D. (2014). Competitive drivers towards improved airport/airline relationships. *Journal of Air Transport Management*, 41, 45–49.
- Butcher, L. (2020). ACI Europe calls on EU for aid Passenger Terminal Today. Available at: <https://www.passengerterminaltoday.com/news/airport/airports-body-calls-on-eu-for-aid.html> (Accessed: 2 July 2021).
- Button, K., Doh, S., & Yuan, J. (2010). The role of small airports in economic development. *Journal of Airport Management*, 4(2), 125–136.
- Caden, C. (2022). 'Cork chamber chief queries Dublin Airport's dominance of Irish skies'. *Irish Examiner*, 20 June. Available at: <https://www.irishexaminer.com/business/economy/arid-40899182.html> (Accessed: 20 January 2023).
- Central Statistics Office. (2021). *Aviation Statistics - CSO - Central Statistics Office* (2021). Available at: <https://www.cso.ie/en/statistics/transport/aviationstatistics/> (Accessed: 2 July 2021).
- Cepolina, S., & Profumo, G. (2011). Airport–airline relationships: Opportunities for Italian regional airports. *WIT Transactions on State-of-the-art in Science and Engineering*, 48.
- Corbet, S., O'Connell, J. F., Efthymiou, M., Guiomard, C., & Lucey, B. (2019). The impact of terrorism on European tourism. *Annals of Tourism Research*, 75, 1–17.
- daa plc. (2021). *Dublin Airport Authority Annual Report 2020*. Available at: https://d110e1o10l6ak2.cloudfront.net/assets/pdfs/daa_36010_AR2020_ENG_web.pdf (Accessed: 4 August 2021).
- Department of Public Expenditure and Reform (2021). Examination of state funding to the aviation sector during the COVID-19 crisis. November 2021. Available at: <https://assets.gov.ie/205030/a6e0e95a-2486-433c-9af4-0aaaa2362788.pdf> (Accessed 12 December 2021).
- Dobruszkes, F., Givoni, M., & Vowles, T. (2017). Hello major airports, goodbye regional airports? Recent changes in European and US low-cost airline airport choice. *Journal of Air Transport Management*, 59, 50–62.
- Dube, K., Nhamo, G., & Chikodzi, D. (2021). COVID-19 pandemic and prospects for recovery of the global aviation industry. *Journal of Air Transport Management*, 92, Article 102022.
- Economic Development Research Group (2015). *The role of U.S. airports in the National Economy*. Washington, DC: Transportation Research Board, 22146. <https://doi.org/10.17226/22146>.
- Efthymiou, M., & Papatheodorou, A. (2015). Intermodal passenger transport and destination competitiveness in Greece. *Anatolia*, 26(3), 459–471.
- Efthymiou, M., & Papatheodorou, A. (2019). EU emissions trading scheme in aviation: Policy analysis and suggestions. *Journal of Cleaner Production*, 237, Article 117734.
- Efthymiou, M., & Papatheodorou, A. (2020). 'Environmental policies in European aviation: A stakeholder management perspective', in *Sustainable aviation*. Springer, 101–125.
- EUROCONTROL (2020a). *Aviation recovery – Importance of a coordinated approach*. Available at: <https://www.Eurocontrol.int/sites/default/files/2020-04/Eurocontrol-aviation-recovery-factsheet-27042020.pdf> (Accessed: 2 July 2021).
- EUROCONTROL (2020b). *EUROCONTROL Revises Downwards Draft Traffic Scenarios for September to February 2021 Draft Traffic Scenarios for April 2020–February 2021*. Available at: <https://www.Eurocontrol.int/sites/default/files/2020-09/Eurocontrol-draft-traffic-scenarios-14092020.pdf> (Accessed: 2 July 2021).
- EUROCONTROL (2021). *COVID-19 Impact on EUROCONTROL Member States - Ireland* | Available at: <https://www.Eurocontrol.int/publication/COVID-19-impact-Eurocontrol-member-states-ireland> (Accessed: 2 July 2021).
- European Commission. (2020). *COVID-19 Temporary Framework*. Available at: https://ec.europa.eu/competition/state_aid/what_is_new/sa_covid19_temporary-framework.pdf (Accessed: 2 July 2021).
- European Commission. (2021). *Competition Policy State Aid Search Page*. Available at: https://ec.europa.eu/competition/elojade/isef/index.cfm?fuseaction=dsp_sa_by_date (Accessed 20 November 2021).
- European Commission. (2022). *Aviation guidelines – prolongation of operating aid to regional airports (COVID-19 response)*. Available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13428-Aviation-guidelines-prolongation-of-operating-aid-to-regional-airports-COVID-19-response_en. (Accessed 8 July 2022).
- Forsyth, P., Guiomard, C., & Niemeier, H. -M. (2020). Covid – 19, the collapse in passenger demand and airport charges. *Journal of Air Transport Management*, 89, Article 101932.
- Forsyth, P., Niemeier, H. -M., & Njaya, E. T. (2020). Economic evaluation of investments in airports: Recent developments. *Journal of Benefit-Cost Analysis*, 1–37.
- Freeman, R. E. (1984). Strategic management: A stakeholder theory. *Journal of Management Studies*, 39(1), 1–21.
- Freeman, R. E., Harrison, J. S., & Wicks, A. C. (2008). *Managing for stakeholders*. Yale University Press.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L. and De Colle, S. (2010). Stakeholder theory: The state of the art.
- Freeman, R. E., Harrison, J. S., & Zyglidopoulos, S. (2018). *Stakeholder theory: Concepts and strategies*. Cambridge University Press.
- Freeman, R. E. and McVea, J. (2001). 'A stakeholder approach to strategic management', (Available at SSRN 263511.)
- Friedman, A. L., & Miles, S. (2002). Developing stakeholder theory. *Journal of Management Studies*, 39(1), 1–21.
- Gillen, D. (2011). The evolution of airport ownership and governance. *Journal of Air Transport Management*, 17(1), 3–13.
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20.
- Graham, A. (2009). How important are commercial revenues to today's airports? *Journal of Air Transport Management*, 15(3), 106–111.
- Graham, A. (2018). *Managing airports: An international perspective*. Routledge.
- Gudmundsson, S. V., Cattaneo, M., & Redondi, R. (2021). Forecasting temporal world recovery in air transport markets in the presence of large economic shocks: The case of COVID-19. *Journal of Air Transport Management*, 91, Article 102007.
- Halpern, N., & Graham, A. (2015). Airport route development: A survey of current practice. *Tourism Management*, 46, 213–221.
- Harvey, G. and Turnbull, P. J. (2009). 'Contesting the crisis: aviation industrial relations and trade union strategies after 11 September'.
- Hiney, N., Efthymiou, M., & Morgenroth, E. (2020). Regional airport business models: Shannon group as a case study. *Air transport and regional development case studies*. Routledge (pp. 86–120).
- Iacus, S. M., et al. (2020). Estimating and projecting air passenger traffic during the COVID-19 coronavirus outbreak and its socio-economic impact. *Safety Science*, 129, Article 104791.
- IATA (2021a). *IATA - Air Transport & Communicable Diseases*. Available at: <https://www.iata.org/en/programs/safety/health/diseases/> (Accessed: 6 July (2021).)
- IATA (2021b). *2020 Worst Year in History for Air Travel Demand*. Available at: <https://www.iata.org/en/pressroom/pr/2021-02-03-02/> (Accessed: 2 July 2021).
- IATA (2021c). *How airlines are managing pandemic-related workforce reductions | Airlines*. (no date). Available at: <https://airlines.iata.org/news/how-airlines-are-managing-pandemic-related-workforce-reductions> (Accessed: 5 July (2021).)
- ICAO (2022). Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis. https://www.icao.int/sustainability/Documents/COVID-19/ICAO_coronavirus_Econ_Impact.pdf (Accessed: 29 September 2022).
- Ison, S., Francis, G., Humphreys, I., & Page, R. (2011). UK regional airport commercialisation and privatisation: 25 years on. *Journal of Transport Geography*, 19(6), 1341–1349.
- Kazda, A., Hromádka, M., & Mrekaj, B. (2017). Small regional airports operation: Unnecessary burdens or key to regional development. *Transportation Research Procedia*, 28, 59–68.
- Kivits, R. A. (2013). *Multi-dimensional stakeholder analysis: A methodology applied to Australian capital city airports*. Southern Cross University.
- Levy, D. (2017). *The triangular business relationship among regional authorities, airport and airlines*. GRIN Verlag.
- Lian, J. I., & Ronnevik, J. (2011). Airport competition–regional airports losing ground to main airports. *Journal of Transport Geography*, 19(1), 85–92.
- Loh, E. (2006). 'The Impact of SARS on the Performance and Risk Profile of Airline Stocks', 'The impact of SARS on the performance and risk profile of airline stocks., pp. 1000–1022.
- Lohmann, G., & Vianna, C. (2016). Air route suspension: The role of stakeholder engagement and aviation and non-aviation factors. *Journal of Air Transport Management*, 53, 199–210.

- Macilree, J., & Duval, D. T. (2020). Aeropolitics in a post-COVID-19 world. *Journal of Air Transport Management*, 88, Article 101864.
- Malvey, D., Fottler, M. D., & Slovensky, D. J. (2002). Evaluating stakeholder management performance using a stakeholder report card: The next step in theory and practice. *Health Care Management Review*, 27(2), 66–79.
- Mendelow, A. (1991). Stakeholder mapping: The power interest matrix. In Proceedings of the 2nd international conference on information systems, Cambridge, Mass.
- Nhamo, G., Dube, K., & Chikodzi, D. (2020). Impact of COVID-19 on the global network of airports. *Counting the cost of COVID-19 on the global tourism industry* (pp. 109–133). Springer.
- OECD. (2020). *COVID-19 and the aviation industry: Impact and policy responses*. Available at: <https://www.oecd.org/coronavirus/policy-responses/COVID-19-and-the-aviation-industry-impact-and-policy-responses-26d521c1/> (Accessed: 5 July 2021).
- O'Halloran, B. (2021). Irish aviation has lost a second summer, says airports chief, The Irish Times Available at: <https://www.irishtimes.com/business/retail-and-services/irish-aviation-has-lost-a-second-summer-says-airports-chief-1.4551570> (Accessed: 5 July 2021).
- Papathodorou, A. (2021). A review of research into air transport and tourism: Launching the annals of tourism research curated collection on air transport and tourism. *Annals of Tourism Research*, 87, Article 103151.
- Papathodorou, A., Vlassi, E., Gaki, D., Papadopoulou-Kelidou, L., Efthymiou, M., Pappas, D., & Paraschi, P. (2019). The airline–airport–destination authority relationship: The case of Greece. *Tourist Destination Management* (pp. 27–41). Cham: Springer.
- Paraschi, E. P., Georgopoulos, A., & Kaldis, P. (2019). Airport business excellence model: A holistic performance management system. *Tourism Management*, 72, 352–372.
- Pedriani, M., & Ferri, L. M. (2019). Stakeholder management: a systematic literature review. *Corporate Governance: The International Journal of Business in Society*, 19(1), 44–59.
- Phillips, R., Freeman, R. E., & Wicks, A. C. (2003). What stakeholder theory is not. *Business Ethics Quarterly*, 13(4), 479–502.
- Royal Schiphol Group (2021). *Annual Report 2020*. Available at: <https://www.annualreportschiphol.com> (Accessed: 2 July 2021).
- Schaar, D. and Sherry, L. (2010). 'Analysis of airport stakeholders', in *2010 Integrated Communications, Navigation, and Surveillance Conference Proceedings*. IEEE, pp. J4–1–J4–17.
- Serrano, F., & Kazda, A. (2020). The future of airport post COVID-19. *Journal of Air Transport Management*, 89, Article 101900.
- Serrano, F., & Kazda, A. (2021). COVID-19 grounded aircraft-parking and storing. *Communications-Scientific letters of the University of Zilina*, 23(2), A103–A115.
- Shannon Group plc (2021). *Group Annual Report and Accounts*. Available at: <https://www.shannongroup.ie/getattachment/News-Media/Publications/English/Shannon-Group-Annual-Report-2020.pdf.aspx?lang=en-IE> (Accessed: 4 July 2021).
- Stephenson, C., Lohmann, G., & Spasojevic, B. (2018). Stakeholder engagement in the development of international air services: A case study on Adelaide airport. *Journal of Air Transport Management*, 71, 45–54.
- Suau-Sanchez, P., Voltes-Dorta, A., & Cugueró-Escofet, N. (2020). An early assessment of the impact of COVID-19 on air transport: Just another crisis or the end of aviation as we know it? *Journal of Transport Geography*, 86, Article 102749.
- Sun, X., Wandelt, S., & Zhang, A. (2020). How did COVID-19 impact air transportation? A first peek through the lens of complex networks. *Journal of Air Transport Management*, 89, Article 101928.
- Thams, A., Zech, N., Rempel, D. and Ayia-Koi, A. (2020). *An initial assessment of economic impacts and operational challenges for the tourism & hospitality industry due to COVID-19* (No. 2/2020). IUBH Discussion Papers–Tourismus & Hospitality.
- Truxal, S. (2020). State aid and air transport in the shadow of COVID-19. *Air and Space Law*, 45(Special issue).
- Verbeke, A., & Tung, V. (2013). The future of stakeholder management theory: A temporal perspective. *Journal of Business Ethics*, 112(3), 529–543.
- Voltes-Dorta, A., & Pagliari, R. (2012). The impact of recession on airports' cost efficiency. *Transport Policy*, 24, 211–222.
- Warnock-Smith, D., Graham, A., O'Connell, J. F., & Efthymiou, M. (2021). Impact of COVID-19 on air transport passenger markets: Examining evidence from the Chinese market. *Journal of Air Transport Management*, 94, Article 102085.
- Zhang, Y., Zhang, A., Zhu, Z., & Wang, K. (2017). Connectivity at Chinese airports: The evolution and drivers. *Transportation Research Part A: Policy and Practice*, 103, 490–508.

Noel Hiney is a PhD Candidate whose research interest is the impact of stakeholder management on the economic relationship between regional airports and their hinterland.

Marina Efthymiou is Assistant Professor and Course Director of the MSc Management (Aviation Leadership) Programme at DCU. Her research interests include aviation policy and sustainable aviation.

Edgar Morgenroth is full Professor of Economics in DCU Business School and is on the external advisory board of the Irish Government Economic & Evaluation Service.