



DOI: <https://doi.org/10.38035/dijms>
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Business Law in an Aerospace Perspective in Indonesia

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Abstract: This scientific article aims to analyze in depth the problems and challenges faced by the aerospace industry in Indonesia from the perspective of business law. This research will use a qualitative approach to deeply understand the legal issues affecting the aerospace industry. This approach allows researchers to explore the experiences, views, and interpretations of various stakeholders. This research method is designed to explore and analyze the legal aspects of business in the aerospace industry in Indonesia. The main focus is on understanding how regulations and laws affect operations and compliance in the industry and how they impact airlines, aircraft operators, and passengers. The results of this study from the researcher's perspective provide an insight and reference where the importance of adaptive business models and flexible regulations in the aviation industry is important. Technological innovations such as electric aircraft and drones offer the potential to improve efficiency and sustainability, but they require the right regulatory support. On the other hand, customer satisfaction remains key to business success, especially through responsiveness to complaints and adjustment to changing expectations due to global events such as COVID-19. Collaboration between all stakeholders is needed to create an environment that supports growth and innovation in the industry.

Keyword: Business Law, Aerospace Industry, Passenger

INTRODUCTION

Indonesia, as the largest archipelagic country in the world, has great potential in various sectors, including the aerospace sector. The aerospace industry in Indonesia has experienced rapid development in recent decades, along with the increasing need for safe and efficient air transportation. Air transportation plays a vital role in connecting remote areas with major economic centers, driving regional economic growth, and facilitating community mobility (Hendriana et al., 2018). However, with this growth comes new challenges that require serious attention from a business law point of view. Passengers as the main consumers in the aerospace industry often face various problems related to the legal aspects of business, Flight delays and cancellations are one of the The most common problems that passengers face (Suryawan et al., 2023). This can cause passengers to miss out on time, important appointments, or even other flight connections.

Overbooking is a practice in which airlines sell more tickets than aircraft capacity (Saylindra et al., 2018). As a result, some passengers may not get a seat even though they already have a valid ticket. Loss or damage to baggage is another significant problem faced by passengers. This can be very troublesome, especially if important or valuable items are in the lost or damaged luggage (Khairunnisa et al., 2015). In addition, other problems that exist today are that existing regulations are often considered less comprehensive and not always in line with international standards (Rötger et al., 2023). This creates uncertainty for business people in this sector, both domestic and international. So that the current phenomenon in the aerospace industry in Indonesia is the rapid growth of local airlines and the increase in the number of passengers and flight routes (Monteiro et al., 2018). However, on the other hand, aviation safety incidents that have occurred in recent years highlight the importance of strict and effective regulation (Kaspers et al., 2019). Another striking phenomenon is the influx of foreign investment in the aerospace industry, which requires policy and regulatory adjustments to support better international cooperation (Pramono et al., 2020).

Industri dirgantara di Indonesia saat ini berusaha beradaptasi dengan regulasi yang ada, meskipun sering kali dihadapkan pada kendala-kendala hukum dan birokrasi. Maskapai penerbangan, misalnya, harus mematuhi standar keselamatan yang ketat, namun sering kali terhambat oleh proses perizinan yang lambat dan birokrasi yang kompleks (Castellanos, 2018). Di sisi lain, bandar udara juga harus mematuhi regulasi terkait keselamatan dan keamanan, serta memastikan pelayanan yang optimal bagi penumpang (Matysek & Wojakowska, 2023). Masalah hukum yang sering muncul mencakup perselisihan terkait kontrak, pelanggaran keselamatan, dan perlindungan konsumen. Pemerintah memiliki peran krusial dalam mengatur dan mengawasi industri dirgantara (Borenstein & Rose, 2014). Melalui Kementerian Perhubungan dengan Direktorat Perhubungan Udara, pemerintah menetapkan regulasi dan kebijakan yang bertujuan untuk meningkatkan keselamatan dan efisiensi penerbangan. Selain itu, pemerintah juga berperan dalam pengembangan infrastruktur bandara dan fasilitas pendukung lainnya, serta memberikan insentif bagi investor asing. Namun, pemerintah juga perlu memastikan bahwa regulasi yang dibuat tidak terlalu memberatkan dan dapat diimplementasikan dengan baik di lapangan (Majone, 2019).

Some of the policies starting from the current laws and regulations include Law Number 1 of 2009 concerning Aviation which regulates all aspects of aviation, including safety, security, and flight comfort. Regulation of the Minister of Transportation Number PM 77 of 2011 concerning the Responsibility of Air Carriers regulates the responsibility of airlines for passengers, baggage, and cargo. Regulation of the Minister of Transportation Number PM 14 of 2016 concerning Airworthiness of Aircraft regulates airworthiness standards for aircraft operating in Indonesia. Regulation of the Minister of Transportation Number PM 185 of 2015 concerning Passenger Service Standards. The government has a crucial role in regulating and supervising the aerospace industry. Through the Ministry of Transportation, the government establishes regulations and policies aimed at improving flight safety and efficiency. In addition, the government also plays a role in the development of airport infrastructure and other supporting facilities, as well as providing incentives for foreign investors. But The government also needs to ensure that the regulations made are not too burdensome and can be implemented properly in the field.

This scientific article aims to analyze in depth the problems and challenges faced by the aerospace industry in Indonesia from the perspective of business law.

METHOD

This research will use a qualitative approach to deeply understand the legal issues affecting the aerospace industry. This approach allows researchers to explore the experiences, views, and interpretations of various stakeholders. This research method is designed to explore and analyze the legal aspects of business in the aerospace industry in Indonesia. The main focus is on understanding how regulations and laws affect operations and compliance in the industry and how they impact airlines, aircraft operators, and passengers (Susanto et al., 2024).

RESULTS AND DISCUSSION

Table 1. Distribution of Journals, Publishers, and Findings

No	Article Name	Authors	Journal	Publisher	Findings
1	The need for legal regulation of global emissions from the aviation industry in the context of emerging aerospace vehicles	(Sikorska, 2015)	International Comparative Jurisprudence, Volume 1, Issue 2, December 2015, Pages 133-142	Elsevier	International regulations in the air and space sector are influenced by the trend of politicization and economics. The absence of binding international laws to regulate greenhouse gas emissions from the aviation industry is mainly due to the lack of political will and economic considerations from some countries regarding the limits to their national interests.
2	Regulation or criminalisation: What determines legal standards of safety culture in commercial aviation?	(Lawrenson & Braithwaite, 2018)	Safety Science Volume 102, February 2018, Pages 251-262	Elsevier	It encourages retrospective bias and can hinder the development of a reporting culture within the organization. If the fear of exposure to retrospective analysis by the criminal justice system hinders the free flow of information, organizational learning will be hampered
3	Is it time for an integrated aviation market in Northeast Asia? An airline performance perspective	(Zhang & Zhang, 2021)	Transport Policy Volume 110, September 2021, Pages 161-169	Elsevier	Conveying that most airlines in the region are operating at almost equal levels, and it is time to advance the aviation market integration agenda in Northeast Asia
4	Supporting the needs of special assistance (including PRM) passengers: An international survey of disabled air passenger rights legislation	(Budd & Ison, 2020)	Journal of Air Transport Management Volume 87, August 2020, 101851	Elsevier	Identify differences in the regulatory framework, highlight their impact on consumers, and ultimately conclude with recommend policy development more coordinated to better support the needs of passengers with special assistance and improve their mobility by air.

No	Article Name	Authors	Journal	Publisher	Findings
5	Competition Law in Air Transport	(Abeyratne & Abeyratne, 2016)	Competition Law in Air Transport. In: Competition and Investment in Air Transport. Springer, Cham. https://doi.org/10.1007/978-3-319-24372-6_10	Springer	The air transport industry (i.e., airlines), like any other industry, needs to develop a competitive strategy based on various inevitable forces, such as the presence of new players in the market; disruptive innovations from competitors; changes in customer and client demands; bargaining power from suppliers; as well as labor demands. Reduced costs and product variety, as needed, are key factors in the face of competition. In addition, economies of scale, which reduce costs through production on a large scale, as well as capital investments that increase quantitative and qualitative production, also play an important role. All of these factors create an impetus for strong competition, provided that government regulations support competition in the air transport sector.
6	Report on the European Air Law Association 9th Munich Liability Seminar: Liability, Insurance and Reinsurance, Passenger Rights and Procurement of Legal Services in the Air Transport and Aircraft Fina	(Cluxton, 2014)	Air and Space Law, Volume 39, Issue 4/5 (2014) pp. 295 – 302 https://doi.org/10.54648/aila2014023	Kluwer online	Recent issues in private aviation law, such as passenger rights and proposed revisions to Regulation 261/2004; criminalization of aviation accidents and accident reporting; and an assessment of the 2014 Montreal Protocol amending the 1963 Tokyo Convention, including the issue of non-compliant passengers
7	Business model options for passenger urban air mobility	(Straubinger et al., 2021)	CEAS Aeronaut J 12, 361–380 (2021). https://doi.org/10.1007/s13272-021-00514-w	Springer	Analysis of UAM Airport Shuttle service shows that although there is The request Adequate These concepts may still be insufficient for a legitimate business case because the critical analysis carried out is incomplete and inadequate regarding the overall operational environment. In addition, a new business model was

No	Article Name	Authors	Journal	Publisher	Findings
					introduced that is often overlooked for the Enterprise Shuttle Service, which dealing with the problem of expanding UAM services with the concept of Business-to-Business (B2B) that can develop dynamically. Furthermore, UAM will be discussed as part of public transportation, by introducing a business model that is inclusive and in accordance with the demands of the community. Finally, these various implementation concepts open up opportunities for open discussion about business models in the field of passenger UAM in general.
8	Technical and environmental assessment of all-electric 180-passenger commercial aircraft	(Gnadt et al., 2019)	Progress in Aerospace Sciences Volume 105 , February 2019, Pages 1-30	Elsevier	The entire energy conversion process, including the charging, transportation and discharge of electrical energy, has been taken into account. Despite the higher total energy consumption, electric aircraft with narrow bodies have the potential to produce lower equivalent CO2 emissions compared to conventional aircraft if the power grid switches to renewable energy sources. This is mainly due to the elimination of all emissions at high altitudes, which will reduce non-CO2-related warming
9	Customer Satisfaction & Loyalty and Organizational Complaint Handling: Economic Aspects of Business Operation of Airline Industry	(Ahmed et al., 2020)	Engineering economics 31.1 (2020): 114-125.	Web of Science & Elsevier	Complaint resolution, timely response, and responsiveness to complaints have a significant and positive influence on customer satisfaction and loyalty of clients using international airline services, which has an impact on the economic outlook of business operations in the aviation industry. However, aspects such as customer relationships, executive

No	Article Name	Authors	Journal	Publisher	Findings
					attitudes, and brand loyalty have not shown a significant influence on customer satisfaction and loyalty
10	COVID-19: transforming air passengers' behaviour and reshaping their expectations towards the airline industry	(Afaq et al., 2023)	Tourism Recreation Research 48.5 (2023): 800-808.	Taylor & Francis	Positive sentiment from passengers towards ASP was identified. In addition, a qualitative analysis was conducted to identify themes that influenced passengers' expectations before and after the COVID-19 outbreak when they interacted with ASPs on Twitter
11	Drones for parcel and passenger transportation: A literature review	(Kellermann et al., 2020)	Transportation Research Interdisciplinary Perspectives Volume 4, March 2020,	Elsevier	Technical and regulatory issues as well as obstacles that are considered to hinder or limit the use of drones for the delivery of goods and the transportation of passengers. Meanwhile, clear economic expectations are at odds with concerns about social and environmental impacts. By assessing transport-related promises such as congestion reduction, travel time savings, and environmental benefits, we found that there is an urgent need to present evidence scientific support for the claims related to the use of drones for transportation
12	Tackling the fuzziness of business model concept: A study in the airline industry	(Vatankhah et al., 2019)	Tourism Management Volume 74 ,October 2019, Pages 134-143	Elsevier	As a strategic tool to modify or produce a successful business model for the airline industry

From the results of dozens of articles as references in this article related to existing journals, all existing findings support and support after being selected by the author in supporting this article where the researcher's perspective will be conveyed the concept of business models as in the research results from (Vatankhah et al., 2019) which states that as a strategic tool to modify or produce a successful business model for the airline industry. Other findings related to regulations stated that technical and regulatory issues as well as obstacles are considered to hinder or limit the use of drones for freight delivery and passenger transportation (Kellermann et al., 2020). According to (Afaq et al., 2023) in its findings also state themes that affect passengers' expectations before and after the COVID-19 outbreak when interacting with ASPs on Twitter (X).

Another study also stated that complaint resolution, timely response, and responsiveness to complaints have a significant and positive influence on customer

satisfaction and loyalty of clients using international airline services, which has an impact on the economic prospects of business operations in the aviation industry. However, aspects such as customer relationships, executive attitudes, and brand loyalty did not show a significant influence on customer satisfaction and loyalty (Ahmed et al., 2020). The matter is related to the aerospace and environmental fields where the findings state that the total energy consumption is higher, electric aircraft with narrow bodies have the potential to produce lower equivalent CO₂ emissions compared to conventional aircraft if the power grid switches to renewable energy, where concepts may still be insufficient for a legitimate business case, are inadequate sources (Gnadt et al., 2019). The results of the study stated that shuttle services to passengers where concepts may still be insufficient for a legitimate business case because the critical analysis carried out is incomplete and inadequate regarding the overall operational environment. In addition, a new business model that is often overlooked was introduced for the Corporate Shuttle Service.

The study of the findings relating to the regulation stated that current issues in private aviation law, such as passenger rights and the proposed revisions to Regulation 261/2004; criminalization of aviation accidents and accident reporting; and an assessment of the 2014 Montreal Protocol amending the 1963 Tokyo Convention, including the issue of non-compliant passengers (Cluxton, 2014).

Discussion

After the above results, the discussion from the researcher's perspective is that success in the aviation industry depends on the ability of airlines to strategically navigate regulatory challenges, adopt technological innovations, and provide responsive customer service and meet changing expectations. In addition, supportive and adaptive regulations are essential to encourage sustainability and innovation in the industry. Additionally, in the face of rapid changes in the aviation industry, including global challenges such as the COVID-19 pandemic, airlines need to maintain flexibility and resilience. Adjustment to dynamic passenger expectations, improved operational efficiency through new technologies, and model adoption Innovative businesses will be a key factor to survive and thrive in a competitive environment.

Relevant regulations and based on in-depth analysis also play an important role in ensuring that innovations such as the use of drones for the transportation of goods and passengers can flourish without compromising the safety or well-being of the public. On the other hand, the implementation of inflexible or overly strict regulations can be an obstacle to innovation and industry growth. As such, collaboration between governments, aviation service providers, and other stakeholders is needed to create regulations that not only ensure safety and compliance but also encourage innovation and sustainability in the aviation industry. Only with this holistic and integrated approach can the aviation industry address the challenges of the future and make the most of the opportunities that arise.

CONCLUSION

Highlighting the importance of adaptive business models and flexible regulations in the aviation industry. Technological innovations such as electric aircraft and drones offer the potential to improve efficiency and sustainability, but they require the right regulatory support. On the other hand, customer satisfaction remains key to business success, especially through responsiveness to complaints and adjustment to changing expectations due to global events such as COVID-19. Collaboration between all stakeholders is needed to create an environment that supports growth and innovation in the industry.

REFERENCE

- Abdullah, M.-A., Chew, B.-C., & Hamid, S.-R. (2016). Benchmarking key success factors for the future green airline industry. *Procedia-Social and Behavioral Sciences*, 224, 246–253.
- Abeyratne, R., & Abeyratne, R. (2016). Competition Law in Air Transport. *Competition and Investment in Air Transport: Legal and Economic Issues*, 191–206.
- Afaq, A., Gaur, L., Singh, G., & Dhir, A. (2023). COVID-19: Transforming air passengers' behaviour and reshaping their expectations towards the airline industry. *Tourism Recreation Research*, 48(5), 800–808.
- Ahmed, R. R., Vveinhardt, J., Warraich, U. A., Hasan, S. S. U., & Baloch, A. (2020). Customer satisfaction & loyalty and organizational complaint handling: Economic aspects of business operation of airline industry. *Engineering Economics*, 31(1), 114–125.
- Bielski, P. (2019). Excess or Deficiency of Regulations of the Commercial Activities Law in the Civil Code? *Krytyka Prawa*.
- Borenstein, S., & Rose, N. L. (2014). How airline markets work... or do they? Regulatory reform in the airline industry. In *Economic regulation and its reform: What have we learned?* (pp. 63–135). University of Chicago Press.
- Brochado, A., Rita, P., Oliveira, C., & Oliveira, F. (2019). Airline passengers' perceptions of service quality: Themes in online reviews. *International Journal of Contemporary Hospitality Management*, 31(2), 855–873.
- Budd, L., & Ison, S. (2020). Supporting the needs of special assistance (including PRM) passengers: An international survey of disabled air passenger rights legislation. *Journal of Air Transport Management*, 87, 101851.
- Castellanos, M. R. (2018). *Estándares de seguridad de aviación dispuestos por una importante aerolínea en las operaciones de exportación de carga frente a los requisitos de la norma de Operador Económico Autorizado (OEA)*.
- Cluxton, D. (2014). Report on the European Air Law Association 9th Munich Liability Seminar: Liability, Insurance and Reinsurance, Passenger Rights and Procurement of Legal Services in the Air Transport and Aircraft Fina. *Air and Space Law*, 39(4/5).
- Cook, G. N., & Billig, B. G. (2023). *Airline operations and management: a management textbook*. Routledge.
- Corde, S. (2017). *Introduction to aerospace engineering with a flight test perspective*. John Wiley & Sons.
- Ferreira, F. N. H., Cova, B., Spencer, R., & Proença, J. F. (2016). A dynamics-based approach to solutions typology: A case from the aerospace industry. *Industrial Marketing Management*, 58, 114–122.
- Gnadt, A. R., Speth, R. L., Sabnis, J. S., & Barrett, S. R. H. (2019). Technical and environmental assessment of all-electric 180-passenger commercial aircraft. *Progress in Aerospace Sciences*, 105, 1–30.
- Hendriana, D. D., Widodo, T. S., & Ramli, D. A. S. B. (2018). *Analisis Usulan Pengembangan Desain Produk Pesawat Perintis Jenis n-219 dengan Menggunakan Metoda House of Quality di PT. Dirgantara Indonesia*.
- Herjanto, H., Amin, M., Okumus, F., & Cobanoglu, C. (2022). Airline service: Low-cost-carriers (LCCs) failure and passenger emotional experience. *Tourism Review*, 77(3), 945–963.
- Kaspers, S., Karanikas, N., Roelen, A. L. C., Piric, S., & de Boer, R. J. (2019). How does aviation industry measure safety performance Current practice and limitations. *International Journal of Aviation Management*.

- Kellermann, R., Biehle, T., & Fischer, L. (2020). Drones for parcel and passenger transportation: A literature review. *Transportation Research Interdisciplinary Perspectives*, 4, 100088.
- Khairunnisa, T., Bachtiar, M., & Hasanah, U. (2015). *Pelaksanaan tanggung jawab pengangkut udara terhadap kehilangan bagasi tercatat*.
- Lawrenson, A. J., & Braithwaite, G. R. (2018). Regulation or criminalisation: What determines legal standards of safety culture in commercial aviation? *Safety Science*, 102, 251–262.
- Li, N., Li, Y., Jelonnek, J., Link, G., & Gao, J. (2017). A new process control method for microwave curing of carbon fibre reinforced composites in aerospace applications. *Composites Part B: Engineering*, 122, 61–70.
- Lin, H.-F. (2022). The mediating role of passenger satisfaction on the relationship between service quality and behavioral intentions of low-cost carriers. *The TQM Journal*, 34(6), 1691–1712.
- Magdalina, A., & Bouzaima, M. (2021). An empirical investigation of European airline business models: Classification and hybridisation. *Journal of Air Transport Management*, 93, 102059.
- Majone, G. (2019). The rise of the regulatory state in Europe. In *The State in Western Europe* (pp. 77–101). Routledge.
- Matysek, K., & Wojakowska, M. (2023). Airport Security Management In The Context Of Fire Protection On The Example Of Chopin Airport In Warsaw. *Zeszyty Naukowe SGSP*.
- Monteiro, D. J., Prem, S., Kirby, M., & Mavris, D. N. (2018). *REACT: A Rapid Environmental Impact on Airport Community Tradeoff Environment*.
- Pramono, A. S., Middleton, J. H., & Caponecchia, C. (2020). Civil Aviation Occurrences in Indonesia. *Journal of Advanced Transportation*.
- Rötger, T., Eysers, C., & Fusaro, R. (2023). A Review of the Current Regulatory Framework for Supersonic Civil Aircraft: Noise and Emissions Regulations. *Aerospace*.
- Saranga, H., & Nagpal, R. (2016). Drivers of operational efficiency and its impact on market performance in the Indian Airline industry. *Journal of Air Transport Management*, 53, 165–176.
- Saylindra, S., Islami, N., Warsito, T., Rachman, I., & Ozali, I. (2018). *The Understanding of Airlines Overbooking by Some Airlines at the Soekarno Hatta International Airport*.
- Sikorska, P. E. (2015). The need for legal regulation of global emissions from the aviation industry in the context of emerging aerospace vehicles. *International Comparative Jurisprudence*, 1(2), 133–142.
- Straubinger, A., Michelmann, J., & Biehle, T. (2021). Business model options for passenger urban air mobility. *CEAS Aeronautical Journal*, 12(2), 361–380.
- Stubbs, P. C., Tyson, W. J., & Dalvi, M. Q. (2017). *Transport economics*. Routledge.
- Suryawan, R. F., Sungkono, & Yuniarti, E. (2023). Resolution of Business Disputes in the Aviation Industry: The Role of Law and Arbitration. *Journal of Law, Politic and Humanities*.
- Susanto, P. C., Arini, D. U., Yuntina, L., & Panatap, J. (2024). Konsep Penelitian Kuantitatif : Populasi , Sampel , dan Analisis Data (Sebuah Tinjauan Pustaka). *Jurnal Ilmu Manajemen*, 3(1), 1–12. <https://doi.org/https://doi.org/10.38035/jim.v3i1>
- Valbrune, M., & De Assis, R. (2019). *[eTextbook] Business Law I Essentials*.
- Vatankhah, S., Zarra-Nezhad, M., & Amirnejad, G. (2019). Tackling the fuzziness of business model concept: A study in the airline industry. *Tourism Management*, 74, 134–143.

- Walker, T. J., Walker, M. G., Thiengtham, D. N., & Pukthuanthong, K. (2014). The role of aviation laws and legal liability in aviation disasters: A financial market perspective. *International Review of Law and Economics*, 37, 51–65.
- Wang, Q., Wu, C., & Sun, Y. (2015). Evaluating corporate social responsibility of airlines using entropy weight and grey relation analysis. *Journal of Air Transport Management*, 42, 55–62.
- Zhang, A., & Zhang, Y. (2021). Is it time for an integrated aviation market in Northeast Asia? An airline performance perspective. *Transport Policy*, 110, 161–169.