Strategies for Improving Profitability and Operational Efficiency of Airlines Operating the A320-200 in Post-Pandemic Indonesia

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ABSTRACT

The study aims to identify the external and internal factors faced by airlines in Indonesia that operate A320 *Family* aircraft, as well as how these factors influence business competition in the aviation industry. Strategic recommendations are proposed to help airlines remain competitive during the post-pandemic recovery period. Strategy formulation was conducted using SWOT analysis to assess strengths and weaknesses, as well as Porter's Five Forces analysis to assess opportunities and threats. Data collection was conducted through interviews, observations, empirical studies, and secondary data analysis. The data was processed in three stages: the input stage (EFE and IFE matrix analysis), the matching stage (SWOT matrix and SPACE matrix analysis), and the decision stage (QSPM). This study identifies three strategic alternatives: (1) optimizing direct operating costs through more efficient aircraft utilization, (2) adding new aircraft to the fleet from the A320 Family, and (3) expanding the network on high-demand routes.

Keywords: A320 family aircraft, aviation industry, post-COVID-19 strategies, strategic planning, fleet expansion, airline competitiveness

A. Introduction

The world has faced a global crisis due to the spread of the COVID-19 pandemic (Suk & Kim, 2021) , which began to impact Indonesia in 2020. This pandemic triggered a significant decline in the global economy, caused by a contraction across various industrial sectors, including logistics—particularly transportation and warehousing—which experienced a 15% decline. In addition, the tourism sector was also severely impacted, with the number of tourists falling by as much as 75%. The global impact of the pandemic created a domino effect that affected nearly all industrial sectors, including air transportation, which is the primary mode of travel for both tourism and business (Vinod, 2021)

Data from the Directorate of Air Transport at the Ministry of Transportation shows that the number of domestic flight routes and destinations has dropped drastically, resulting in an 80% decline in passenger numbers for domestic flights and an 81% decline for international flights. In response to this situation, the International Air Transport Association (IATA, 2020) projects that the crisis's impact on the aviation industry will persist until 2024. Under these conditions, airlines are required to optimize operations while maintaining fixed costs, even as revenue experiences a significant decline, leading to a drop in profit margins (Belobaba et al., 2016) . The inability of airlines to survive

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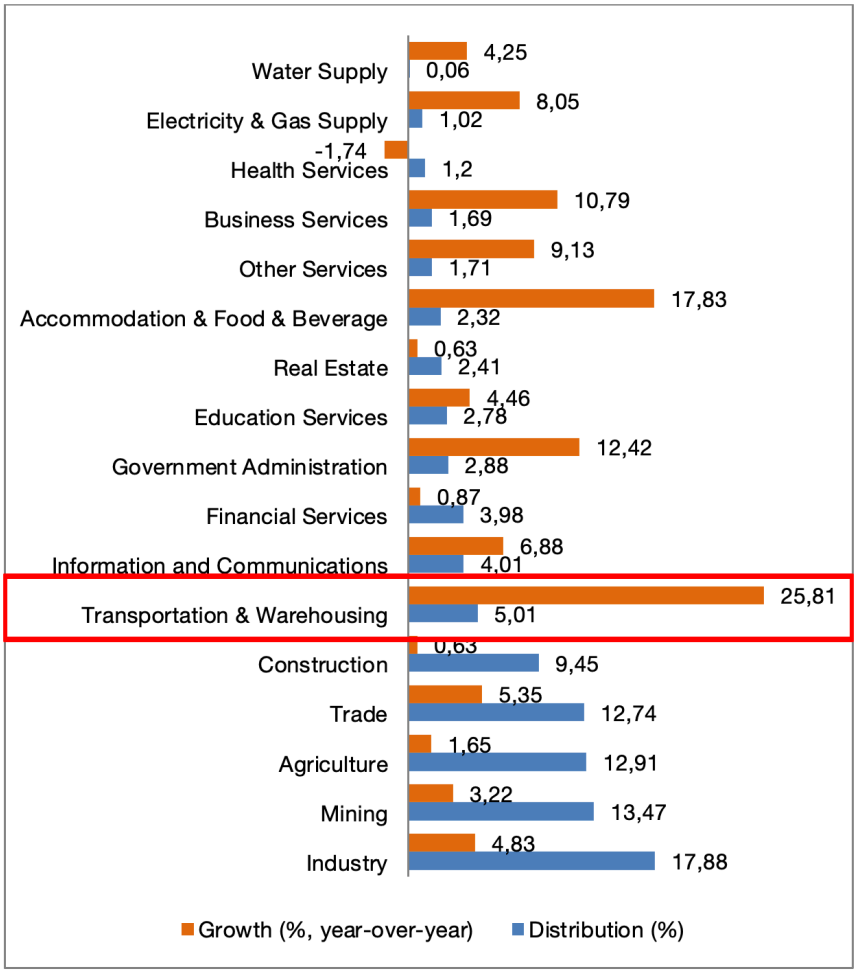
and maintain competitiveness poses a serious challenge to the sustainability of the aviation industry, as it risks causing companies to lose their competitive edge and fail to survive in the market (An, 2010) . Therefore, this study was conducted to provide an analytical foundation for airlines in formulating strategies to increase profits and operational efficiency in the post-pandemic era.

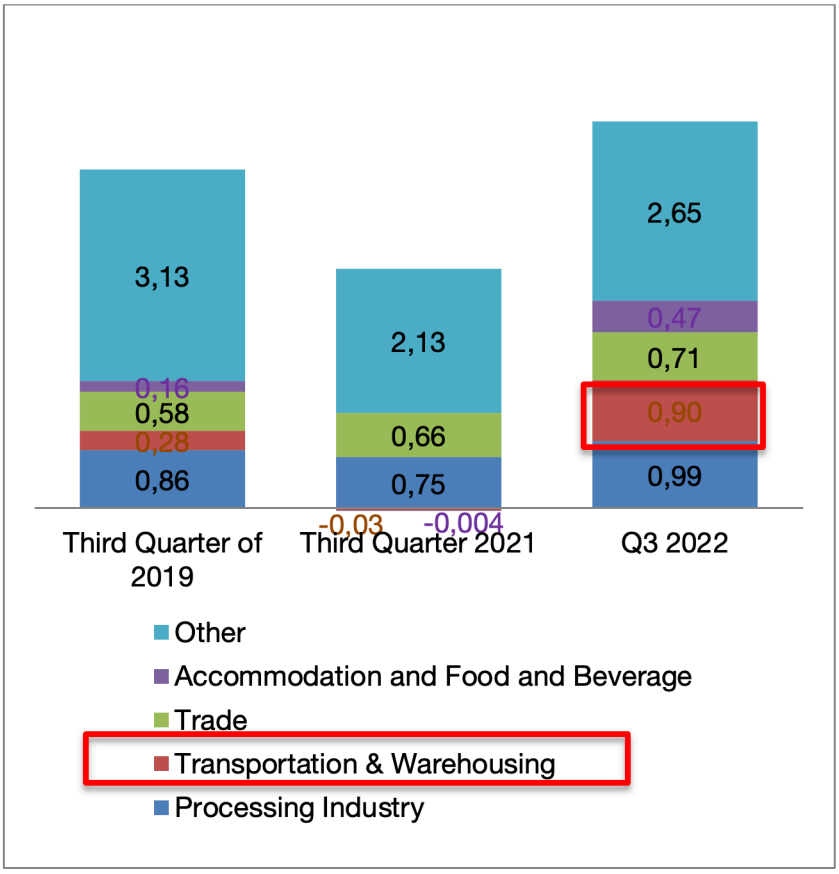
Based on this background, this study is expected to answer the research question: "How can airlines operating the A320-200 aircraft model remain viable and improve their profitability and efficiency in Indonesia after the pandemic?"

Data from the Central Statistics Agency (BPS) shows that in the third quarter of 2022, the Transportation and Warehousing sector ranked second highest as a contributor to Indonesia's economic growth by economic sector on a year-over-year (YoY) basis, with a contribution of 0.90%. This position placed it just below the Manufacturing sector, which recorded growth of 0.99%. This achievement serves as a key focus for stakeholders in the national aviation industry to continue conducting comprehensive evaluations and aircraft type selection (An, 2010) , in order to ensure operational efficiency and optimal revenue generation (Albers & Rundshagen, 2020) . One aircraft deemed to meet these criteria is the Airbus A320 Family.

Following the fatal incidents involving the Boeing 737 MAX 8 on Lion Air Flight



Source: BPS (2022)
Figure 1 Distribution and Growth of GDP by Economic Sector, Q3 2022 (YoY)



Source: BPS (2022)
Figure 2 Sources of Indonesia's Economic Growth in Q3 2022 by Economic Sector (YoY)

JT-610 (October 2018) and Ethiopian Airlines (March 2019), the global aviation industry's attention turned to Boeing, especially when operations of this aircraft type were temporarily suspended. Research by the " indicates that since 2020, demand for Airbus aircraft, particularly the A320 Family, has seen a significant increase.

Meanwhile, the Indonesia National Air Carrier Association (INACA) projects a recovery in passenger and cargo volumes in the domestic aviation sector beginning in early 2022, with expectations of reaching an optimal level by 2024. For international flights, recovery is predicted to occur in 2023 and reach an optimal level by 2026. These projections open opportunities for national airlines to prepare various initiatives to boost overall cargo growth. However, this potential is also accompanied by competitive threats, given the entry of several new airlines offering an increasingly diverse range of services into the commercial aviation industry (Ricardianto et al., 2021) . This study was conducted by an independent researcher using an external observer approach, adopting the operational perspective of airlines in Indonesia that operate A320 Family aircraft. This study aims to identify the external and internal factors faced by airlines in Indonesia that operate A320 Family aircraft, as well as how these factors influence business competition in the aviation industry. These strategic decisions are crucial to keeping operational costs under control and ensuring airlines remain competitive.

Vinod's (2021) Findings discusses the significant impact of the COVID-19 pandemic on airlines' revenue planning. This study highlights the importance of implementing a stronger and more adaptive revenue

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management approach capable of monitoring key metrics, detecting anomalies early, and taking swift corrective actions if revenue targets are not met. Vinod recommends four key areas that airlines must focus on to survive amid the disruption caused by the pandemic: optimizing cargo services, rescheduling flights, implementing flexible pricing, and adopting an integrated revenue management strategy. This research demonstrates that anticipatory and adaptive strategies in responding to market changes are crucial for ensuring the business continuity of airlines. In general, the findings align with the focus of this study, particularly regarding the importance of revenue management strategies and operational efficiency in addressing post-pandemic challenges. Both emphasize the need for innovation and flexibility in managing airline resources to remain competitive amid the dynamics of the global aviation industry.

In contrast to Vinod, Migdadi,(2022) explores effective operational strategies for airlines in addressing challenges arising from the COVID-19 pandemic. This study employs a survey-based approach involving airlines from various regions worldwide, with a specific focus on regional airlines in Qatar. This research identifies four operational strategy models that can be applied by international airlines, as well as two alternative strategies relevant to regional airlines. The approach used reflects the importance of strategic adaptation based on the scale and scope of an airline's operations (Belobaba et al., 2016) , as well as the geographical context and local regulations. The similarity between the study (Migdadi, 2022) and this study lies in their focus on the disruptions caused by the pandemic and the need for airlines to respond adaptively in order to maintain operational sustainability. Migdadi's study provides a comparative cross-regional perspective that reinforces the urgency of implementing flexible and measurable strategies amid global crises such as the COVID-19 pandemic.

Another study conducted by Amankwah-Amoah et al.,(2021) , discusses the importance of updating business strategies in response to the disruptions caused by the COVID-19 pandemic in the global aviation industry. This research proposes a four- -stage framework for the business renewal process, namely: identifying the root causes of problems and conducting *benchmarking* for continuous learning; revitalizing the organization; formulating strategies that integrate corporate values into key routes; and emphasizing the key role of management in the overall renewal process.

This approach provides strategic insights for airlines in navigating the crisis and rebuilding long-term competitiveness. The focus of this research aligns with current research topics, particularly regarding adaptive strategies to restore performance and ensure the sustainability of airlines following the disruption caused by the pandemic. Drawing on practices and lessons from the global aviation industry, this study underscores the urgency of a dynamic, value-based business strategy renewal.

On the other hand, Simarmata et al. (2014) examines the impact of rising fuel prices and the depreciation of the rupiah exchange rate on the sustainability of the aviation industry in Indonesia. This study highlights the importance of airlines implementing operational efficiency strategies in response to significant cost pressures. Some recommended strategies include managing fuel policies through the application of a cost index, fuel tankering strategies, optimizing flight altitudes, and improving aircraft maintenance techniques to reduce fuel consumption. In addition, the consideration of replacing aircraft types is also proposed as a strategic step to optimize efficiency and reduce operational costs. Although the context of disruption in this study is different—namely, related to fluctuations in fuel prices and exchange rates—this study is highly relevant to the research currently being conducted, particularly in terms of strategic approaches to maintaining airline sustainability amid external challenges. This

indicates that adapting to market dynamics—both economic and operational—is a crucial aspect of maintaining the aviation industry's competitiveness.

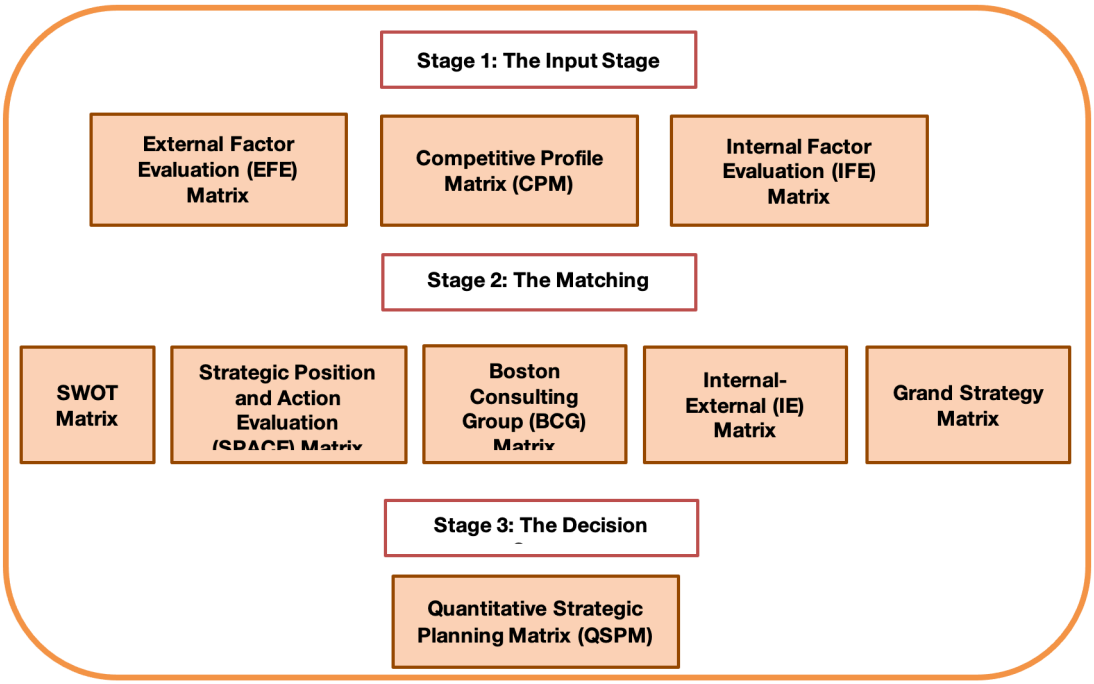
B. Methods

This study employs a mixed-methods approach (quantitative and qualitative), with data collected from primary and secondary sources. The data were analyzed based on the periods before and after the COVID-19 pandemic—specifically from 2017 to 2021—to examine the dynamics of the aviation industry in both global and national contexts.

Primary data was obtained through questionnaires and interviews with key personnel working at airlines in Indonesia, with a focus on the Airbus A320 Family. Meanwhile, secondary data was collected through analytical observation of periodic reports and relevant publications to strengthen the analysis and support the study's conclusions.

According to (Cooper & Schindler, 2014), quantitative approaches are used to systematically measure behavior, knowledge, opinions, and attitudes, as well as to answer questions regarding frequency, intensity, and respondent engagement. The quantitative data obtained was then coded, categorized, and processed into numerical values for statistical analysis (Willie, 2022) . Data collection took place from September 2022 to March 2023, involving a total of seven respondents. Two respondents were from Pelita Air's Route Network and Planning Department, one respondent was from TransNusa's Commercial Department, one served as the VP of Commercial for Garuda Indonesia, one served as the VP of Maintenance for Citilink, one aviation observer served as the VP of Operations for Scoot Airlines, and one aviation observer named Alvin Lie.

This study employs a strategic analysis approach consisting of three main stages—(David, 2017) —namely the input stage, the matching stage, and the decision-making



Source: (David, 2017)
Figure 3 Three Stages of Strategic Analysis

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stage. In the input stage, an analysis of external and internal factors is conducted using the EFE (External Factors Evaluation) and IFE (Internal Factors Evaluation) matrices to identify internal strengths and weaknesses as well as external opportunities and threats. The matching stage is conducted using a SWOT analysis visualized through the Four-Quadrant SWOT Matrix (SWOT-4K Matrix), followed by an analysis of the SPACE Matrix (Strategic Position and Action Evaluation) to determine the competitive strategic position of the A320-200 aircraft within the operational context of airlines in Indonesia (Chatfield, 2020) . Next, the decision-making stage was conducted using the QSPM (Quantitative Strategic Planning Matrix) method, which presents quantitative calculations based on the results of the analyses from the two previous stages, while also considering the primary and secondary data that had been collected. The ultimate goal of this series of analyses is to formulate an appropriate strategy to increase revenue and improve operational cost efficiency for airlines operating the Airbus A320 Family in the face of post-COVID-19 challenges in Indonesia.

C. Results and Discussion

Globally, Airbus and Boeing are the two largest commercial aircraft manufacturers that compete directly with one another. In Indonesia, both are the top choices for national airlines, with each offering specific advantages that influence fleet selection decisions. Aircraft type selection is a strategic factor in determining an airline's operational efficiency and revenue optimization; therefore, a thorough analysis is required to align operational needs with the aircraft's cost structure (Gailagista et al., 2018) .

One of the primary considerations in fleet selection is the estimation of operating costs, both direct and indirect (direct and indirect costs) (Majid et al., 2019) . An inappropriate decision regarding aircraft selection can result in significant losses and even impact the airline's competitiveness in the market. However, even the right aircraft selection does not guarantee freedom from risk, as potential losses can also be caused by internal or external factors.

A concrete example of an external risk is the accidents involving Boeing 737 Max 8 aircrafts operated by Lion Air (JT-610) and Ethiopian Airlines (ET-302), which triggered a global grounding of that model series. In Indonesia, an operational ban was imposed immediately following the Ethiopian Airlines incident in March 2019 and was only lifted by the Ministry of Transportation in December 2021 following a joint evaluation with international aviation authorities.

As a result of these incidents, confidence in Boeing temporarily declined, while Airbus began to gain a larger market share. A number of new airlines in Indonesia, such as Super Air Jet (SAJ), Pelita Air, and TransNusa, chose Airbus A320 Family as their primary fleet. Although the decline in confidence in Boeing was not the only reason, the choice of Airbus was based on a number of technical and operational advantages deemed more suitable for the airlines' needs in the post-pandemic era.

Next, this study compared the performances of Airbus and Boeing based on the operational cost structures, aircraft order distribution, market segmentation, and the utilization rates of A320-200 Family and Boeing 737-800NG in Indonesia, to gain a more comprehensive understanding of the appropriate fleet selection strategies for the airlines.

The results of the aircraft takeoff performance analysis showed that aircraft weight, air temperature, and wind speed had a significant effect on the distance required for takeoff. Assuming a 90% load factor, Airbus A320-200 required a takeoff distance of approximately 1,637 meters. In contrast, Boeing 737-800NG required a longer distance—more than 1,900 meters. This difference in distance indicated that B737-800NG required greater thrust and consumed

Table 1 Summarized Comparison between B737-800NG and A320-200

Aircraft Type	Boeing 737-800 NG	Airbus A320-200
Length	39.5 m / 129 ft 7 in	37.57 m / 123 ft 3 in
Wingspan	35.8 m / 117 ft 5 in	34.1 m / 111 ft 10 in
MTOW	79,000 kg / 174,000 lb	77,000 kg / 170,000 lb
Range	5,425 km / 2,930 nm	5,700 km / 3,078 nm
Cruise speed	M 0.785	Mach 0.78
Capacity (typical)	162 passengers	150 passengers
Max capacity	198 passengers	190 passengers

Sources: Airbus ([Airbus], 2005) and ([Boeing], 2006)

more fuel than A320-200. Therefore, in terms of fuel efficiency, A320-200 demonstrated superior efficiency, particularly when operating at the airports with limited runway lengths.

The A320-200's advantages are further supported by fly-by-wire technology, which enables the flight control system to be digitally controlled, making it more accurate and responsive to flight conditions. With

Table 2 Comparison of Cost Structures between A320 and B737

Description	300 hours per month cost/hour USD	300 hours per month cost/hour USD
Direct Operating Cost	A320-200	B 737-800 NG
Aircraft	490.00	563.33
Crew	97.22	173.33
Maintenance	1,580	1,656.00
Aircraft Insurance	200.00	200.00
Fuel	3,100.00	3,332.35
Route Charges	200.00	200.00
Ground Handling	200.00	200.00
Crew Training	27.00	28.00
Catering	200	200
Subtotal	6,094.22	6,553.02
Indirect Operating Costs		
DOC X 10%	609.42	655.30
Total Operating Cost		
TOC in USD	6,703.64	7,208.32
TOC/Seat-Hour	37.24	39.18
Margin 10%	670.36	720.83
Selling Price/Hour	7,374.01	7,929.15
Selling Price Per Seat-Hour	39.02	43.09
Percentages Of Fuel Cost	46.2%	46.2%

Source: Airbus and Boeing, 2023; data compiled by the author

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these characteristics, A320-200 is considered better suited for Indonesia's geographical conditions, which feature many airports with short runways, making it an efficient and strategic choice for domestic airlines.

The comparison of operational cost structures between A320-200 and B737-800NG is as follows.

The operational cost structure data in 2023 provided a comprehensive comparison between A320-200 and B737-800NG aircrafts, assuming a utilization rate of 300 hours per month (approximately 10 hours per day) for each aircraft. Costs were calculated in Indonesian rupiah based on an average exchange rate of Rp15,000 per USD and referred to monthly aircraft lease rates for a 10-year-old fleet as of July 2022. Fuel costs used the price references from Pertamina Aviation Fuel, assuming full consumption of block fuel for each flight.

Direct operating costs (DOC) include technical, maintenance, capital, insurance, flight crew, training, and catering costs. The calculations were made using a uniform operational configuration for both aircraft types, based on the empirical data from an airline in Indonesia.

The comparison results show that the A320-200 has a lower lease cost than the B737-800NG. In addition, cutting-edge technology such as the fly-by-wire system on the A320-200—particularly the neo variant—improves its operational efficiency, including fuel consumption. Airbus also claims that Airbus A320 Family is 11% more fuel-efficient than Boeing 737, with a 15% reduction in crew costs due to the cockpit design and standardized training systems (high commonality).

With these various advantages, the A320-200's total operating cost (TOC) per hour is 7% to 9% lower than that of B737-800NG, making it a more efficient choice for airline operations, particularly in the Indonesian domestic market.

1. Phase 1: EFE and IFE Matrices

a. SW (Strengths and Weaknesses) of the A320-200 Aircraft Type

b. Based on the IFE (Internal Factors Evaluation) Matrix analysis, the weighted total score obtained was 2.61. This value was derived by multiplying the weight by the rating of each identified internal factor. This score was above the average (2.5), indicating that the airline was in a relatively strong internal position. Thus, the airline possessed the internal strengths that could be leveraged to support the strategies for improving operational performance and competitiveness in the post-pandemic era.

c. OT (Opportunities and Threats) of the A320-200 aircraft type

The results of the EFE (External Factors Evaluation) Matrix analysis show a weighted total score of 3.02. This score is above the average of 2.5, indicating that the airline is able to respond effectively to external factors. In other words, the strategies implemented are considered successful in capitalizing on the existing opportunities and minimizing the impact of external threats in the aviation industry.

2. Stage 2: SWOT and SPACE (Strategic Position and Action Evaluation) Matrices

a. SWOT Matrix (Table 5)

b. SPACE Matrix (Figure 4)

The Strategic Position and Action Evaluation (SPACE) Matrix was used in this study as a tool to determine a company's strategic position during the alignment stage. This matrix consists of four strategic quadrants—aggressive, conservative, defensive, and competitive—each representing the most appropriate type of strategy to implement.

Table 3 Internal Factors – IFE

No	Internal Factor	Weight	Rating	Weighted Score
	Strength			
1	The lease price for A320-200 is more competitive than that of the B737	**0.16**	**4**	**0.64**
2	The availability of an Airbus branch office in Indonesia	**0.03**	**3**	**0.06**
3	The A320-200 aircraft is more fuel-efficient	**0.10**	**4**	**0.40**
4	The A320-200 aircraft features cutting-edge technology	**0.05**	**3**	**0.15**
5	The A320-200 aircraft is sustainable and features high commonality	**0.10**	**3**	**0.30**
6	A320-200 has lower operating costs than B737	**0.10**	**4**	**0.40**
	Total Strength			**1.95**
	Weakness			
7	The average age of A320-200 aircrafts in Indonesia is 11.3 years	**0.25**	**1**	**0.25**
8	The seating capacity of A320-200 is no greater than that of B737-800NG	**0.15**	**2**	**0.30**
9	The spare parts inventory is limited, and the spare parts are manufactured in China.	**0.01**	**2**	**0.02**
10	The digitized cockpit design reduces the manual experience felt by some pilots.	**0.03**	**1**	**0.03**
11	Fierce competition with Boeing which secured a major order from Lion Air.	**0.01**	**1**	**0.01**
12	Sensitive to global political and economic influences that impact the company's sustainability and operations.	**0.01**	**2**	**0.02**
	Total Weaknesses			**0.63**
	Total IFE	**1.00**	**30**	**2.61**

Table 4 External Factors – EFE

No	External Factor	Weight	Rating	Weighted Score
	Opportunities			
1	Market demand that has the potential to recover more quickly following the COVID-19 pandemic	**0.15**	**3**	**0.45**
2	Government regulations supporting the recovery of the aviation industry.	**0.12**	**4**	**0.48**
3	Opportunities for developing more efficient and environmentally friendly aviation technologies.	**0.15**	**3**	**0.45**
4	The A320-200 aircraft offers advantages in fuel efficiency systems and renewable operational technologies.	**0.03**	**2**	**0.06**
5	The optimization of aircraft operational productivity, as government regulations do not limit the service life of aircraft	**0.05**	**3**	**0.15**
	Total Opportunities			**1.59**
	Threats			
1	The emergence of new and stiffer competition, such as from Boeing and Comac.	**0.17**	**3**	**0.51**
2	The geopolitical situation and global economy which are currently rebounding from the pandemic	**0.13**	**2**	**0.26**
3	The fluctuations in global oil prices affecting fuel price fluctuations	**0.13**	**4**	**0.52**
4	The operational disruptions and travel restrictions that may occur due to force majeure events	**0.07**	**2**	**0.14**
	Total Threats			**1.43**
	Total EFE	**1.00**	**26**	**3.02**

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Table 5 SWOT Matrix

	Strengths - S	**Weaknesses - W**
intentionally left blank	S1. The lease price for the A320-200 aircraft is more competitive than that for the B737	W1. The average age of A320-200 aircrafts in Indonesia is 11.3 years, which can result in higher carbon emissions compared to younger aircrafts. This can affect the amount of maintenance required for each operation and lead to a greater environmental impact.
	S2. Airbus has *a branch office* in Indonesia, which facilitates business needs and transactions with industry players.	W2. Spare part inventory is limited, and the spare parts are manufactured in China. This has a significant impact on logistics and inventory costs.
	S3. The A320-200 is more efficient in operation because its configuration is well-suited to Indonesia's geographical conditions.	W3. Competition is quite intense, particularly from Boeing, which has received a large order from one of Indonesia's airlines, Lion Air.
	S4. The A320-200 aircraft has advantages in fuel efficiency and advanced operational technology.	W4. It is sensitive to global political and economic influences that impact the company's sustainability and operations.
	S5. The A320-200 features sustainable technology that is constantly being improved. Since its introduction in 1988, the A320-200 has consistently incorporated advanced technologies such as eco-friendly design enhancements, NavBlue, and other innovations that help reduce operating costs.	W5. The digitized cockpit design gives the impression of eliminating the typical feel of flying an aircraft.
	S6. The A320-200 has lower operating costs because Airbus aircraft models share a high degree of commonality in airframe, onboard systems, cockpit, and handling characteristics, thereby reducing costs for crew training, spare parts, maintenance, and flight scheduling.	
Opportunities – O	**SO Strategies**	**WO Strategies**
O1. Market demand is expected to recover more quickly following the COVID-19 pandemic, as markets in Indonesia and globally are rebounding with flight networks resuming operations.	(S1, O1) The addition of new aircraft from the A320 Family to anticipate future demand, particularly in the domestic market.	(W3, W2, O2, O5) Developing a persuasive strategy to convince the government and industry stakeholders to support Airbus's presence in the market. In addition to market penetration as a corporation, this involves building relationships across all aspects, such as R&D, logistics, and commercial matters.

Table 5 SWOT Matrix

O2. Government support and regulations that foster the recovery of the aviation industry.	(S6, O2) Enhancing cooperation with the government regarding route development and connectivity. This goes beyond cooperation based solely on regulations and government incentives—such as route-opening incentives—to a deeper business perspective that can create opportunities to learn about and gain a deeper understanding of the domestic market post-pandemic.	
O3. Competitive opportunities to support the aircrafts equipped with the latest technology that is efficient, reliable, and environmentally friendly.	(S6, O5) With the removal of fleet age restrictions, optimizing and acquiring a new fleet of A320-200s can help improve performance, reduce maintenance costs, and promote sustainability by lowering the carbon footprint.	
O4. Airbus offers add-ons as value-added features that enable airlines to manage costs associated with flight operations, minimize expenses related to fuel consumption, operating costs, and flight time.	(S4, O4) The optimization of *direct operating costs* and the adoption of advanced technology to manage fuel efficiency and crew rotations. Effective management of operating costs with single-digit *margins of error* results in the cost efficiency.	
O5. Government regulations regarding no age limits on aircraft allow for the optimization of aircraft operational productivity.		
Threats - T	**ST Strategies**	**WT Strategies**
T1. The emergence of new and stiffer competition from Boeing and Comac.	(S4, T1) Increasing brand awareness and engagement in the industries where the A320-200 has a strong reputation for cutting-edge technology	(W2, W3, W4, T1, T2, T3) Considering the commercial aspects to develop financing solutions for the airlines interested in the A320-200, leveraging its competitive advantages to foster long-term B2B relationships
T2. The geopolitical landscape and the global economy, which are currently in a recovery/rebound phase following the pandemic, as well as other external factors.	(S5, S6, T3, T4) Collaborating with Airbus to enhance the adoption of the latest technologies to mitigate cost impacts, which can be a major contributor to fuel efficiency	
T3. The fluctuations in the global oil prices that affect jet fuel prices.		
T4. The operational disruptions and travel restrictions that may occur due to unforeseen force majeure events such as natural disasters, security crises, or subsequent pandemics.		

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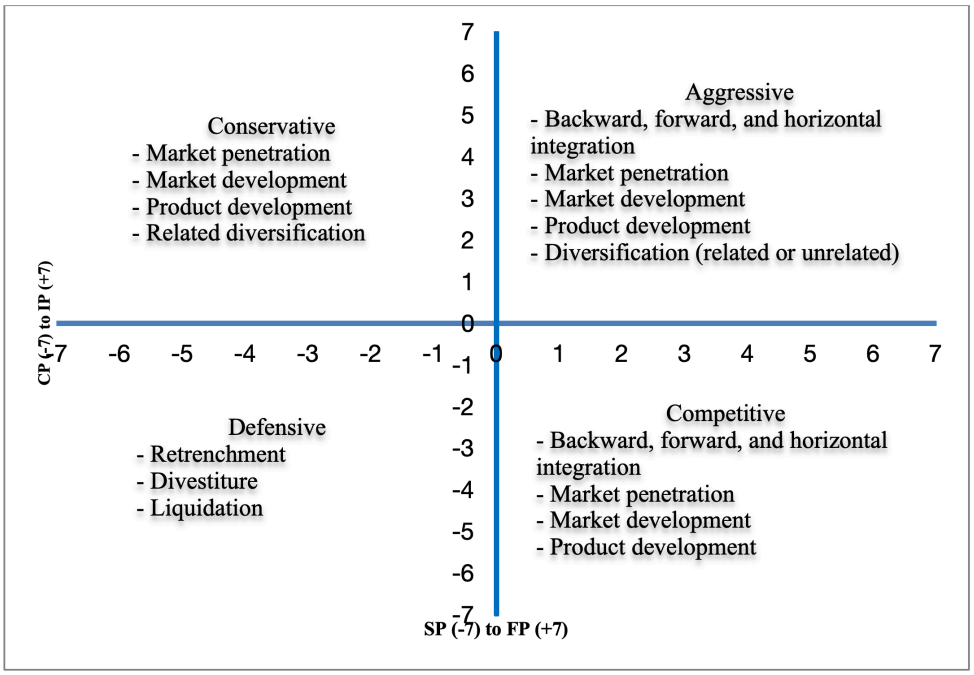


Source: (David, 2017)
Figure 4 SPACE Matrix Framework

The SPACE Matrix is structured based on two internal dimensions—Financial Position (FP) and Competitive Position (CP)—and two external dimensions—Stability Position (SP) and Industry Position (IP). These four dimensions serve as key indicators for assessing an organization's strategic position.

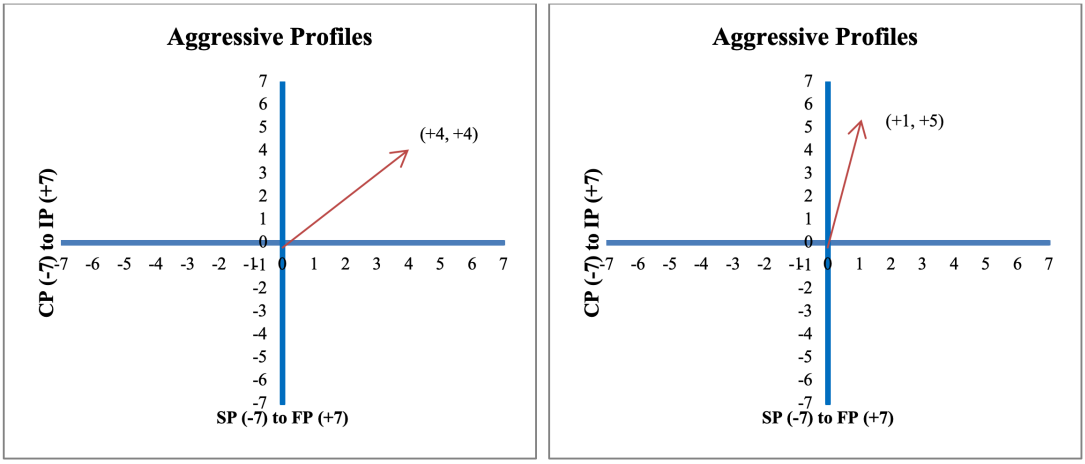
The SP dimension reflects the level of industry volatility, including revenue fluctuations and the influence of external factors such as technological changes, economic conditions, and seasonal factors. The industries experiencing high levels of external change tend to have an unstable SP.

The results of the SPACE quadrant mapping indicate the strategic direction an airline should take—whether an aggressive, conservative, defensive, or competitive strategy—in accordance with the internal and external conditions it faces.

Based on the analysis of the input from the IFE and EFE matrices, a strength score of 1.95 and a weakness score of 0.63 were obtained. The difference between the two was 1.32, which represented the internal position on the X-axis. Meanwhile, an opportunity score of 1.59 and a threat score of 1.43 resulted in a difference of 0.16, indicating the external position on the Y-axis.

Thus, the coordinate point resulting from the calculations in the SPACE Matrix was (1.32:0.16). This point illustrates the direction of the strategy vector that can be used to determine the company's strategic position in selecting the most appropriate approach (Figure 6).

Based on the coordinates from the SPACE Matrix analysis, the company is positioned in the "aggressive" quadrant. This indicates that the company possesses a solid financial strength and a competitive advantage in a stable and growing industry. Therefore, the strategies that can be taken into consideration include market penetration, market and product development, vertical integration (both backward and forward), horizontal integration, or diversification, tailored to the specific conditions faced by the company.



A financially strong firm that has achieved significant competitive advantages in a growing and stable industry

A firm whose financial strength is the dominant factor in the industry

Source: (David, 2017)
Figure 5 SPACE Matrix Quadrant Results Guidelines

Table 6 QSPM Matrix

		Strategic Alternatives					
		1		2		3	
		Addition of new aircrafts to the fleet using the A320 Family		Optimizing the direct operating costs by maximizing the aircraft utilization		Expanding the network on the right routes with high demand	
Key Factors	*Weight*	*AS*	*TAS*	*AS*	*TAS*	*AS*	*TAS*
Opportunities							
1. Market demand is expected to recover more quickly following the COVID-19 pandemic	0.15	4	0.6	4	0.60	4	0.6
2. Government regulations supporting the recovery of the aviation industry.	0.12	3	0.36	3	0.36	4	0.48
3. Opportunities to compete in developing the latest, most efficient technologies	0.15	2	0.3	3	0.45	2	0.3
4. The A320-200 aircraft has advantages in fuel efficiency systems and advanced operational technology.	0.03	4	0.12	4	0.12	4	0.12
5. Optimization of aircraft operational productivity because the government regulations do not limit the aircraft lifespan	0.05	2	0.1	3	0.15	3	0.15
Threats							

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Table 6 QSPM Matrix

1. The emergence of new and stiffer competition, such as from Boeing and Comac.	0.17	1	0.17	2	0.34	1	0.17
2. The geopolitical situation and the global economy, which are currently rebounding from the pandemic	0.13	3	0.39	3	0.39	2	0.26
3. The fluctuations in the global oil prices that affect fuel price fluctuations	0.13	3	0.39	3	0.39	3	0.39
4. The operational disruptions and travel restrictions that may occur due to force majeure events	0.07	0	0	0	0	0	0
Total	**1.00**						
Strengths							
1. The lease price for the A320-200 is more competitive than that for the B737	0.16	4	0.64	4	0.64	3	0.48
2. The presence of an Airbus branch office in Indonesia	0.03	3	0.09	1	0.03	1	0.03
3. The A320-200 is more fuel-efficient	0.10	4	0.4	4	0.4	3	0.3
4. The A320-200 aircraft features state-of-the-art technology	0.05	4	0.2	3	0.15	1	0.05
5. The A320-200 aircraft has a high commonality	0.10	3	0.3	3	0.3	2	0.2
6. The operating costs of A320-200 are lower than those of B737	0.10	3	0.3	4	0.4	3	0.3
Weaknesses							
1. The average age of the A320-200 aircrafts in Indonesia is 11.3 years	0.25	2	0.5	3	0.75	1	0.25
2. The seating capacity of the A320-200 is no greater than that of the B737	0.15	3	0.45	2	0.3	1	0.15
3. Limited spare part inventory, and the spare parts are manufactured in China.	0.01	1	0.01	2	0.02	1	0.01
4. The digitalized cockpit design seems to take away the typical feel of flying an airplane.	0.03	1	0.03	1	0.03	1	0.03
5. Fierce competition with Boeing, which secured a major order from Lion Air.	0.01	2	0.02	2	0.02	1	0.01
6. Sensitivity to global political and economic influences affects the company's sustainability and operations.	0.01	2	0.02	1	0.01	2	0.02
Total	1.00		5.39		**5.85**		4.3

3. Stage 3: QSPM (Quantitative Strategic Planning Matrix) (Table 6).

4. Based on the SWOT analysis and data processing during the QSPM phase, the strategy was formulated into three main focuses, namely: (1). Expanding the A320 Family fleet while considering the competitive lease costs, (2). Optimizing direct operating costs (DOC) by increasing the aircraft utilization, (3). Expanding the network on the routes with high demand and strong market potential.

Next, each strategy was scored based on its relevance to internal and external factors, then multiplied by the weight of those factors to obtain a Total Attractiveness Score (TAS). The results showed that the strategy for optimizing the operating costs has the highest score (TAS = 5.85), followed by fleet expansion (TAS = 5.39), and route network expansion (TAS = 4.3). Thus, the strategy to improve operational efficiency is the top priority recommended for the airlines to implement.

D. Conclusion

Through a strategic analysis approach involving three stages—input (IFE and EFE Matrices), alignment (SWOT and SPACE Matrices), and decision-making (QSPM)—three key strategic focuses are identified. The results show that the highest-priority strategy is the optimization of direct operating costs through increased aircraft utilization. The second strategy is the expansion of the A320 Family fleet, taking into account the competitive lease costs, and the third is the expansion of the flight route network in regions with high demand.

The research findings indicate that the use of the A320 Family offers a number of operational advantages that support the efficiency and competitiveness of airlines in Indonesia. However, further strategic decisions are needed to ensure that operations run efficiently and generate optimal profits. It is recommended that the airlines optimize their aircraft utilization to reduce direct operating costs, for example, by selecting the A320-200CEO for short- to medium-haul routes and the A321neo for long-haul routes. In addition, the airlines should selectively expand their fleets by taking advantage of more flexible post-pandemic leasing market conditions. Furthermore, airlines are advised to expand their flight networks on the routes with high demand and market growth potential.

Before expanding the fleet—particularly through leasing arrangements—a comprehensive analysis of aircraft age and maintenance costs must be conducted. Similarly, route selection should consider market potential to support the airline's sustainability and competitiveness, especially when compared to the competitors operating the B737 Family aircrafts.

The focus of this study has not been explored in depth from the market or consumer behavior perspective. Additionally, the number of respondents from airlines remains limited, which may introduce subjective bias. Further research is recommended to explore the market aspects, customer orientation, and strategies such as the Blue Ocean Strategy to gain a more comprehensive understanding from various perspectives.

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