



Will Merger of PT Angkasa Pura I and PT Angkasa Pura II Maximise The Value of Shareholders?

Muhammad Luthfi Al Akbar¹, Yunieta Anny Nainggolan²

¹Student, Master of Business Administration, Insitut Teknologi Bandung, Indonesia

²Lecture, Master of Business Administratuon, Institut Teknologi Bandung, Indonesia

ABSTRACT: The government's program of restructuring state-owned enterprises continues to this day. From 2016 to March 2022, the number of SOE continuously decrease. In March 2022, the number of SOEs only 41 companies. The number of SOEs has reduced by 52.87% from the previous year. The plan will continue in 2023 by cutting 41 companies to 30 companies and operating in 12 clusters. PT Angkasa Pura I and PT Angkasa Pura II are the following plans for restructuring state-owned enterprises. The merger of the two companies is expected to provide synergy opportunities in operational efficiency. The results showed synergy between PT Angkasa Pura I and PT Angkasa Pura II. Based on calculations using the Discounted Cash Flow (DCF) method, the company value of PT Angkasa Pura I is IDR 4,169,267 and the company value of PT Angkasa Pura II is IDR 9,784,469 with a total combined company value of IDR 13,953,736. While the value of the two companies when synergizing is IDR 25,051,653. The synergy value obtained for both companies is IDR 11,097,917.

By determining the premium value of 40% - 60%, the premium value reaches IDR 1,667,707 – IDR 2,501,560. Therefore, within this premium value range, the purchase price is IDR 5,836,974 – IDR 6,670,827. The merger between PT Angkasa Pura I and PT Angkasa Pura II can potentially maximize shareholder value in the IDR 4,427,090 – IDR 5,260,943 range.

Analysis using Discounted Cash Flow for the two companies proves that there is a synergy resulting from the proposed merger between PT Angkasa Pura I and PT Angkasa Pura II.

KEYWORDS: Discounted Cash Flow, Merger, Synergy Value, Premium.

INTRODUCTION

In running a business, various strategies can be used to develop the company to the desired level. One business strategy that is often used to create a business is a merger. Based on Article 2 of Government Regulation of the Republic of Indonesia Number 43 of 2005 states that the purpose of SOE merger is to increase efficiency, transparency, and professionalism to nourish SOE (Pemerintah Pusat, 2005).

From 2016 to March 2022, the number of SOE continuously decrease. In March 2022, the number of SOEs only 41 companies. The number of SOEs has reduced by 52.87% from the previous year. The plan will continue in 2023 by cutting 41 companies to 30 companies and operating in 12 clusters.

One of the sectors that will be part of this merger is the state-owned airport management company PT Angkasa Pura I and PT Angkasa Pura II. The merger between PT Angkasa Pura I and PT Angkasa Pura II emerged as an attractive strategic option.

The merger of PT Angkasa Pura I and PT Angkasa Pura II potentially can create opportunities to take advantage of scale, combine resources and improve operational efficiency.

However, the decision to merge between Angkasa Pura I and Angkasa Pura II requires further study and conducting a feasibility study to assess whether the merger will provide benefits for both companies and the development of the aviation industry in Indonesia as a whole because the results of the company's merger do not always guarantee that the company will create efficiency after the merger.

In this research, author will use the Discounted Cash Flow (DCF) method to determine whether the resulting synergies will potentially maximize shareholder value.



RESEARCH OBJECTIVE

The following is the research objectives of this study.

1. Estimate the enterprise value of PT Angkasa Pura I and PT Angkasa Pura II.
2. Estimate the potential synergy value during the merger simulation at PT Angkasa Pura I and PT Angkasa Pura II.
3. Analyze whether the planned merger of PT Angkasa Pura I and PT Angkasa Pura II will maximize shareholder value.

CONCEPTUAL FRAMEWORK

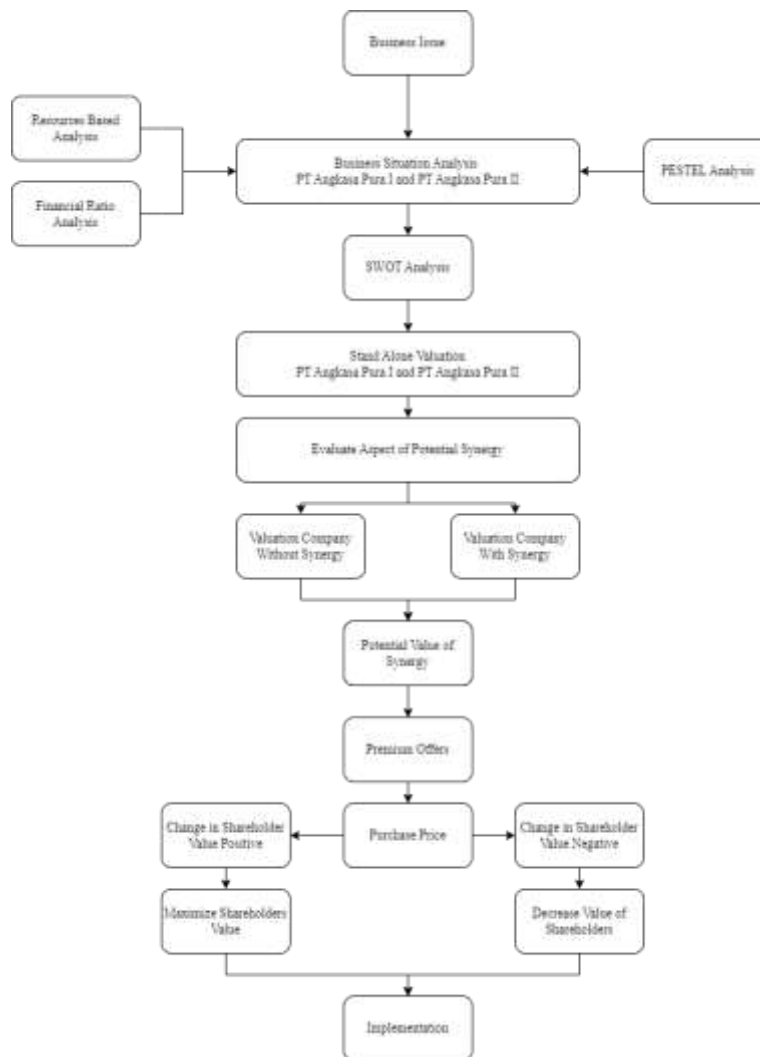


Fig. 1: Conceptual Framework

RESEARCH METHODOLOGY

A. Types and Sources of Data

The data source that the authors use in this study is secondary data as a reference. The following is a source of data used in this research.

1. Annual reports from PT Angkasa Pura I and PT Angkasa Pura II, which have been audited for 2018 to 2022 on the websites of each company.
2. Previous research related to this research, such as credible journals and articles.



B. Data Processing Methods

1. Estimate Standalone Cash Flows
2. Determine the Terminal Value
3. Calculate the Present Value of Cash Flows
4. Assess Synergy Value
5. Decision-Making

RESULTS AND DISCUSSION

A. Enterprise Value Valuation

1. Key Assumptions

In determining the value of synergy, the first step is to find the enterprise value of each company. The following are some of the assumptions used in company valuation such as risk-free rate, risk premium, perpetuity growth, and corporate tax.

Table 1. Key Assumptions

Assumptions	Value
Risk-Free Rate	6.73%
Risk Premium	9.23%
Perpetuity Growth	5%
Corporate Tax	22%

For risk free rate assuming that the 10-year Indonesia Government Bond Yield on April 10, 2023, is 6.73%. Meanwhile, the risk premium is 9.23% based on the equity risk premium from Damodaran on January 5, 2023.

2. Cost of Capital

The Weighted Average Cost of Capital (WACC) in this study is used as a discount rate for PT Angkasa Pura I and PT Angkasa Pura II. The following is the equation for calculating WACC.

Equation 1

$$WACC = (w_i \times r_i) + (w_s \times r_s)$$

The following are the components used in calculating the WACC.

A. Cost of Equity

In determining the cost of equity according to Gitman et al., (2015) is to use the Capital Asset Pricing Model (CAPM) formula as follows.

Equation 2

$$r_s = R_f + [\beta(r_m - R_f)]$$

In determining beta for PT Angkasa Pura I and PT Angkasa Pura II is using levered beta using the following equation.

Equation 3

$$\beta_{unlevered} = \frac{\beta_{current}}{[1 + (1 - T) \times D/E]}$$

Using Equation 3, assume that average debt-to-equity ratio for peer companies PT Angkasa Pura I is 0.8345 and average debt-to-equity ratio for peer companies PT Angkasa Pura II is 0.7971 obtained unlevered beta for PT Angkasa Pura I is 0.28 and PT Angkasa Pura II is 0.29.

Equation 4

$$\beta_{levered} = \beta_{unlevered}[1 + (1 - T) \times D/E]$$

After calculated unlevered beta is calculate levered beta using Equation 3. Assuming a debt-to-equity ratio (DER) from PT Angkasa Pura I is 3.393 and debt-to-equity ratio from PT Angkasa Pura II is 1.418, the value of levered beta PT Angkasa Pura I is 1.014 and levered beta for PT Angkasa Pura II is 0.630.

Using Equation 2, the value cost of equity PT Angkasa Pura I is 16.09% and PT Angkasa Pura II is 12.54%.

B. Cost of Debt



According to Damodaran (2016), in determining cost of debt for PT Angkasa Pura I and PT Angkasa Pura II can use the following equation Finally for WACC calculate using this equation.

Equation 5

$$r_i = (R_f + \text{Default Spread}) \times (1 - T)$$

According to Pefindo (2023), PT Angkasa Pura I and PT Angkasa Pura II has an AA+ bond rating, meaning the default risk for two companies is 1.00%. Using Equation 5, value of cost of debt PT Angkasa Pura I and PT Angkasa Pura II is 6.03%.

After completed a components for WACC, using Equation 1 the value of WACC PT Angkasa Pura I and PT Angkasa Pura II is shown in Table 2.

Table 2. Cost of Capital

PT Angkasa Pura I	8.66%
PT Angkasa Pura II	8.58%

3. *Reinvestment Rate*

The following is assumptions of reinvestment rate for PT Angkasa Pura I and PT Angkasa Pura II in Table 3 and Table 4.

Table 3. Reinvestment Rate PT Angkasa Pura I

	Net Capex	Change in NWC	NOPAT
2023	2,297,060		1,189,652
2024	3,047,536	(292,844)	1,715,221
2025	4,043,710	(388,719)	2,562,864
2026	5,406,626	(531,825)	3,840,042
2027	10,760,255	(732,520)	5,693,995
2028	14,605,693	(1,015,746)	8,183,136
2029	19,973,809	(1,417,951)	11,738,470
2030	27,218,223	(1,913,562)	16,677,499
2031	36,958,412	(2,572,804)	23,476,061
2031	50,005,292	(3,446,243)	32,778,381

Table 4. Reinvestment Rate PT Angkasa Pura II

	Net Capex	Change in NWC	NOPAT
2023	1,618,105		1,071,421
2024	2,024,475	(504,927)	1,420,768
2025	2,537,293	(637,192)	1,917,009
2026	3,210,860	(836,926)	2,877,659
2027	4,102,153	(1,107,458)	4,264,797
2028	5,290,402	(1,476,435)	5,786,392
2029	6,886,486	(1,983,182)	7,919,435
2030	8,943,279	(2,555,627)	10,807,494
2031	11,587,025	(3,284,933)	14,704,506
2031	14,976,394	(4,211,392)	19,759,518

4. *Enterprise Value*

Following are the enterprise values of PT Angkasa Pura I and PT Angkasa Pura II based on the assumptions mentioned in the previous section.



Table 5. Enterprise Value (million IDR)

	PT Angkasa Pura I	PT Angkasa Pura II
Beta	1.014	0.630
Cost of Equity	16.09%	12.54%
Cost of Debt	6.03%	6.03%
WACC	8.66%	8.58%
Reinvestment Rate	163.1%	97.1%
Growth Period	10	10
Terminal Growth	5%	5%
Enterprise Value	4,169,267	9,784,469

Using the assumptions in Table 5, the enterprise value of PT Angkasa Pura I is calculated to be IDR 4,169,267, and the enterprise value of PT Angkasa Pura II is IDR 9,784,469.

B. Valuing Synergy

1. Growth Synergy

PT Angkasa Pura I and PT Angkasa Pura II are two airport service companies with the same business segment. The two companies have different operational areas. PT Angkasa Pura I has 15 airports spread on the east side, while PT Angkasa Pura II has 20 airports on the west.

With the merger of two companies the author assumes that there will be some synergies achieved from the merger of the two companies as follows.

A. Manage many Airports in Indonesia

By merging, the company will manage more airports in Indonesia, with 35 airports under the same entity. The new company will manage several big airports, such as Soekarno-Hatta in Jakarta, Ngurah Rai in Bali, and Sultan Hasanuddin in Makassar, providing scale and expanding geographical reach.

B. Airline Integration

The aviation concept in Indonesia used the hub and spoke concept by connecting airlines from two points and combining passengers to different fingers from their hubs, so the merging of the two companies will be a solution for an extensive network and increase company revenue.

Hub is a large airport that is the center of a region. Meanwhile, spoke is the airports other than hubs in one area. For the illustration, Soekarno Hatta Airport (CGK) is used as a hub by ABC Airlines. As a result, people who wants to travel with ABC Airlines from Sepinggan Airport (BPN) to Minangkabau Airport (PDG) must first transit at CGK.

By increasing the effectiveness of the hub and spoke model after the merger, the new company will improve connectivity between existing airports in Indonesia so that there will be more airlines and expansion of new routes to these airports. For illustration, the BPN-PDG route makes BPN as a spoke. After the company merger, PT Angkasa Pura I and PT Angkasa Pura II can work with airlines to provide direct flights from BPN to PDG so that passengers who want to travel on that route can use the services provided by the airlines. The result is that there will be an increase in passenger traffic which will affect the company's revenue.

C. Collaboration with Airlines Company

The new company can cooperate with the airlines on a larger scale. This collaboration can benefit the company by reviving less profitable routes and increasing domestic and international connectivity.

Based on the points above, the following are the assumptions for calculating the growth rate of PT Angkasa Pura I and PT Angkasa Pura II.

Table 6. Combine Growth Rate

Assumptions	PT Angkasa Pura I	PT Angkasa Pura II
Revenue	5,962,854	8,418,169
Weighted Revenue	41.5%	58.5%
Growth Rate	-6.89%	-5.54%
Combined Growth Rate without Synergy	-6.10%	



In the last five years, both companies have experienced a decline in growth rates due to the pandemic in 2020-2021. However, in 2022 there has been a recovery for the two companies. In 2022, traffic for both companies will experience a significant increase. According to the annual reports of the two companies, there was an increase of 84% for PT Angkasa Pura I and around 97% for PT Angkasa Pura II.

Based on the information and assumptions above, the combined growth without synergy of -6.10% will be adjusted to the potential for a merger of companies and an increase in traffic during 2022. According to Schosser & Wittmer (2015) the estimated growth synergy in airline mergers companies 2.5% - 8.2% . Therefore, after look at the performance of the two companies, the author assumes that the growth synergy generated by the two companies is 3% .

2. *Cost Savings*

PT Angkasa Pura I and PT Angkasa Pura II are airport management companies and do not sell physical goods or products, so there is no COGS in the financial statements of the two companies. The two companies use operational expenses related to airport management and operations as a substitute for cost savings. Table 7 shows the percentage of operating expenses based on operating revenue.

Table 7. Operating Expenses PT Angkasa Pura I and PT Angkasa Pura II

	PT Angkasa Pura I	PT Angkasa Pura II
2018	67.6%	71.8%
2019	68.7%	78.9%
2020	145.8%	123.4%
2021	180.5%	146.3%
2022	98.7%	89.1%

Following are the cost savings that can generate from the merger of PT Angkasa Pura I and PT Angkasa Pura II in several aspects.

A. *Consolidation of Infrastructure*

Infrastructure consolidation is an important step to achieve operational synergies. Infrastructure consolidation involves merging or merging facilities and systems owned by the two companies to optimize resource use and reduce redundancy.

B. *Consolidation of Overlapping Departments and Functions*

After the merger two companies, departments, and functions with similar duties and responsibilities in the two companies can be combined into one. As companies engaged in the aviation industry and airport services, PT Angkasa Pura I and PT Angkasa Pura II have several departments with similar organizations. Departments that may overlap include operations and service department, finance department, human capital department, engineering department, and marketing department.

C. *Employee Efficiency*

Employee reductions can be one of the factors contributing to cost savings efficiency. Employee efficiency can be identified from overlapping departments based on the previous point.

D. *Reduction of Training Costs*

There is potential to reduce the cost of new employee training and company orientation. By consolidating the human capital departments of both companies, the companies can reduce costs associated with training and onboarding new employees.

According to Annual Report PT Angkasa Pura I experienced a decrease in efficiency by 1.65%, and Annual Report PT Angkasa Pura II experienced an increase in efficiency by 5.88%. From these assumptions and the potential cost savings mentioned in the points above, the authors assume that the cost savings are 4.62% when companies merge.



3. *Combine Cost of Equity*

Table 8. Combine Cost of Equity

	PT Angkasa Pura I	PT Angkasa Pura II	Combined
Risk-Free Rate	6.73%	6.73%	6.73%
Risk Premium	9.23%	9.23%	9.23%
Unlevered Beta	0.278	0.286	0.283
Levered Beta	1.014	0.6296	0.6299
Cost of Equity	16.091%	12.541%	12.544%

The combined cost of equity for the two companies is 12.544%. The combined value of the cost of equity is almost the same as the value of the cost of equity from PT Angkasa Pura II because the unlevered beta values of the two companies are similar. The value of the unlevered beta of the two companies is similar.

4. *Combine Cost of Debt*

The new cost of debt calculation is the same as using the previous method. Because the two companies have the exact cost of debt of 6.03%, the combined cost of debt is 6.03%.

5. *Combine Cost of Capital*

Table 9. Combine Cost of Capital

	Combined Company	Cost	Weighted Cost
Debt	60.45%	6.03%	3.65%
Equity	39.55%	12.54%	4.96%
WACC			8.61%

Based on the combine WACC calculation, Table 9 result a lower cost of capital than before, meaning that a lower cost of capital will increase firm value and reduce risk

6. *Value of Synergy*

The following is a table for calculating the synergy value of the two companies using the assumptions mentioned in the previous section.

Table 10. Combine Enterprise Value (in million IDR)

	PT Angkasa Pura I	PT Angkasa Pura II	Combined
Beta	1.01	0.63	0.63
Tax Rate	22%	22%	22%
Cost of Equity	16.091%	12.541%	12.544%
Cost of Debt	6.03%	6.03%	6.03%
WACC	8.66%	8.58%	8.61%
Terminal Value	23,890,545	21,702,198	43,540,487
Perpetuity Growth Rate	5%	5%	5%
Enterprise Value	4,169,267	9,784,469	25,051,653

Based on Table 10, the combined value of PT Angkasa Pura I and PT Angkasa Pura II is 13,953,736. Meanwhile, the combined value of the two companies with synergy is 25,051,653. The synergy values obtained from the merger of PT Angkasa Pura I and PT Angkasa Pura II are as follows.

$$\text{Synergy Value} = 25,051,653 - (4,169,267 + 9,784,469) = 11,097,917$$

The synergy value obtained from the merger of the two companies is 11,097,917.



7. *Premium Offers*

In merger and acquisition, acquirer company sometimes have to pay a premium for the target company. According to Block (2000) a merger premium of 40 to 60 percent (or more) is paid over the price of the acquired company prior to the merger. Based on these calculations, the premium calculation value is as follows.

Table 11. Premium Offers

PT Angkasa Pura I Enterprise Value	4,169,267
Synergy Value	11,097,917
40% Premium	1,667,707
60% Premium	2,501,560

Based on the calculations in Table 11, PT Angkasa Pura II must pay a premium in the range of IDR 1,667,707 – IDR 2,501,560. If a premium of 60% has to be paid, the premium is still lower than the potential synergy generated when the companies merge. Therefore, a premium of 60% is still acceptable.

8. *Purchase Price*

The purchase price is the amount that the acquiring company must pay to the target company's shareholders. In this instance, the purchase price equals the value of the target company plus the premium. By using a premium value with a range of IDR 1,667,707 – IDR 2,501,560 the purchase price is as follows.

$$\text{Purchase Price} = 4,169,267 + (4,169,267 \times 0.4) = 5,836,974$$

$$\text{Purchase Price} = 4,169,267 + (4,169,267 \times 0.6) = 6,670,827$$

Based on calculation above, purchase price is IDR 5,836,974 – IDR 6,670,827.

To determine whether the merger maximises shareholder value, the change in shareholder value after the merger must be compared to shareholder value prior to the merger. If the change in shareholder value is positive, then it can be said that the merger maximises shareholder value.

$$\text{Change in Shareholder Value} = 11,097,917 - 5,836,974 = 5,260,943$$

$$\text{Change in Shareholder Value} = 11,097,917 - 6,670,827 = 4,427,090$$

The result from change in shareholder value after merger is positive IDR 4,427,090 – IDR 5,260,943. The merger has the potential to maximise shareholder value. This indicates that the anticipated synergy value of the merger exceeds the purchase price and can provide shareholders with additional value.

D. Implementation Plan

The following is an implementation plan for PT Angkasa Pura I and PT Angkasa Pura II in the merger process.

1. Preparation Step (Three Months)

- *First Month*

- Identify a merger management team consisting of representatives from both companies.
- Review the financial statements, organizational structure, policies and procedures, and contracts related to both companies.
- Identify differences and similarities in operations, corporate culture, and IT infrastructure.

- *Second Month*

- Formulation of a merger strategy that involves the integration of finance, operations and corporate culture.
- Identify key areas requiring integration and customization.
- Formation of task teams to address specific areas.

- *Third Month*

- Review the legal and regulatory aspects of the merger.
- Identification of obstacles and risks that may arise during the merger process.
- Preparation of legal and contractual documents required for the merger.

2. Integration Step (Six Months)

- *Fourth Month*



- Initiated integration of finance and accounting departments.
- Start integrating IT systems and procedures, including relevant data migration.
- Start harmonization of operational policies and procedures.
- *Fifth Month*
 - Continuing the integration of operational departments such as flight operations, customer service and airport operations.
 - Initiated integration of management team and organizational structure.
 - Monitor and evaluate the impact of mergers on business performance.
- *Sixth Month*
 - Complete integration of other departments such as human resources, procurement, and marketing.
 - Conduct regular internal communications to ensure all employees are informed about the progress of the merger.
 - Continuing to evaluate and adjust the merger strategy if necessary.
- 3. Stabilization Step (Three Months)
 - *Seven Month*
 - Conduct an overall evaluation of integration and identify areas that still need improvement.
 - Continuing performance and financial monitoring to ensure expected results are achieved.
 - Implement employee retention and talent development strategies.
 - *Eighth Month*
 - Identify and address remaining corporate cultural differences.
 - Continue harmonization of policies, procedures, and best practices.
 - Continuing communication and engagement with internal and external stakeholders.
 - *Ninth Month*
 - Complete the transition to the new organizational structure, including completion of change management and decision making.
 - Complete post-merger monitoring and evaluation to ensure success and efficiency.
 - Develop long-term action plans to maximize synergies and business opportunities.

CONCLUSION AND RECOMMENDATION

A. Conclusion

Based on the calculated results using Discounted Cash Flow with the key assumptions, the enterprise value of PT Angkasa Pura I is IDR 4,169,267. In contrast, the enterprise value of PT Angkasa Pura II is IDR 9,784,469. Thus, the combined value of the companies, without synergy, is IDR 13,953,736. Furthermore, by assuming that when PT Angkasa Pura I and PT Angkasa Pura II merge, there will be synergies such as operating synergy (growth synergy and cost-saving) and financial synergy (reduction in the cost of capital), the combined calculation of the two companies using Discounted Cash Flow is IDR 25,051,653. By taking the difference between the combined values of the two companies with synergy and those of the two companies without synergy, the synergy value amounts to IDR 11,097,917. By determining a premium value of 40% - 60%, the premium amounts to IDR 1,667,707 – IDR 2,501,560. Therefore, within this premium range, the purchase price is IDR 5,836,974 – IDR 6,670,827. The merger of PT Angkasa Pura I and PT Angkasa Pura II can potentially maximize shareholder value within the IDR 4,427,090 – IDR 5,260,943 range.

B. Recommendations

The analysis suggests several recommendations for PT Angkasa Pura I and PT Angkasa Pura II's merger. First, calculate the potential synergy value of IDR 11,097,917 and proceed with the merger. Second, evaluate the strategic merger plan and ensure integration of objectives, growth strategies, and synergies. Third, optimize operational synergy potentials by developing best practices, efficient resource allocation, and improving efficiency. Fourth, establish a robust monitoring and evaluation system to track the merger's implementation and identify improvement opportunities. Further studies and evaluations are necessary before final decisions are made.



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