

PalArch's Journal of Archaeology of Egypt / Egyptology

Formulation of Business Strategy Based on SWOT Analysis on PT. Garuda Maintenance Facility Aeoroasia . Tbk

Johar Samosir¹, Sonya Sijabat², Johannes Kurniawan³, Feqih Juliardi⁴

^{1,2,3,4} ITL Trisakti

Email: ¹ joharsamosir@yahoo.co.id, ²sonyasijabat@gmail.com, ³johanneskurniawan@gmail.com

⁴feqihjuliardi@gmail.com

Johar Samosir, Sonya Sijabat, Johannes Kurniawan, Feqih Juliardi: Formulation of Business Strategy Based on SWOT Analysis on PT. Garuda Maintenance Facility Aeoroasia . Tbk -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(9). ISSN 1567-214x

Keywords: Formulation strategy, Business, SWOT, PT GMF AeroAsia Tbk.

ABSTRACT

PT Garuda Maintenance Facility AeroAsia . Tbk is an aircraft maintenance company that has the total capacity of AeroAsia.Tbk. hangars as competition in the business world continues to be enforced. The problem discussed in this research is how to formulation the business strategy of PT Garuda Maintenance Facility AeroAsia Tbk. based on SWOT analysis. The purpose of this study was to find out the company's internal and external factors and to analyze the formulation of business strategies based on SWOT analysis at PT Garuda Maintenance Facility AeroAsia Tbk. Researchers used field research data through interviews, observations, and questionnaires to analyze the problem. Based on the IE matrix, *the company's position is in cell V, namely maintaining and maintaining (Hold and Maintain)* with a total internal factor score of 2.77 and external factors of 2.92 so that the market penetration strategy *or business development*. Meanwhile, in SWOT analysis using IFE and EFE tables, the internal strength factor was obtained by 3.23 and weakness factor of 2.21, so that the difference from the two factors internal factor is 1.02. After that the external opportunity factor is 3.22 and the threat factor is 2.60, so the difference from the two factors is 0.62 external factors. The conclusion of the research is based on swot diagram 4 Quadrant the company's position is in quadrant I, where the company can take advantage of opportunities and optimize the power it has, so that in the SWOT matrix the company's position is in the S-O strategy.

1. Introduction

Advances in air transport and technology cannot be denied at this time. Air transportation is one of the sectors that has a very important role to meet daily needs. Air transportation is also one of the struggles to travel from one place to another. In line with the progress and the increasing need for transportation is demanded to provide good safety and security.

One of the businesses of air transportation in the field of aviation safety is aircraft maintenance services or Maintenance, Repair, and Overhaul. Maintenance, Repair, and Overhaul business is a business that is in the field of transportation and aims to provide services to aviation service businesses in the realization of applicable aviation rules. This business can be an alternative in carrying out aircraft maintenance more easily, because the business of aviation services do not need to go down directly in the implementation of maintenance, repair, and overhaul of aircraft. Through this Maintenance, Repair, and Overhaul (MRO) service, in addition to aviation service businesses will get convenience, this service also offers estimated cost, time, and quality of care that is more efficient than doing aircraft maintenance itself because MRO businesses already have standardization and quality in accordance with existing rules.

Seeing the high growth of the air transport services business, it is also the airline's need for the maintenance of its fleet. To meet the needs of this airline in need of the role of maintenance services, namely aircraft repair shops. This aircraft maintenance service is run by maintenance, repair, and overhaul (MRO) companies, one of which is PT. Garuda Maintenance Facility AeroAsia .Tbk.

Tight competition is one of the challenges that must be faced by a company. The number of new competitors that have emerged requires the company to increase its cauldron and human resources in it to increase the growth of the company's business. This is because human resources are one of the important elements in a company, because success in achieving the company's goals is very dependent on the human resources contained in it, namely quality human resources that can bring the company to achieve its goals.

The formulation of the strategy can be reviewed in various aspects both internal and external as well as maximizing the rapidly growing operational in order to compete with other companies such as better utilizing existing facilities in the maintenance process and maximizing existing human resources in order to have a good quality of service.

Pt. Garuda Maintenance Facility Aero Asia is a subsidiary of PT. Garuda Indonesia.Tbk, provides MRO or Maintenance, Repair, and Overhaul services to aircraft engines from various airlines in Indonesia. GMF Aero Asia has now grown to become one of the best MRO service providers in Asia even in the world.

GMF Aero Asia itself has a large number of hangars in the world, namely as many as 4 hangars, including: hangar 1 has 2 line wide body with an area of 22,000 sq-m, Hangar 2 has 3 line wide body / 6 line narrow body with an area of 23,000 sq-m, hangar 3 has 3 line wide body with an area of 23,000 sq-m,

and hangar 4 has 15 narrow body lines and 1 line for painting with an area of 66,940 sq-m. in this situation GMF Aero Asia has not been able to use the facilities in its entirety. Another factor that hinders GMF Aero Asia's strategy is the lack of stability in maintenance quality, so many customers are turning to other MRO's who are more maintaining their quality.

Based on the explanation above, the author tries to analyze more about pt strategy. GMF Aero Asia .Tbk in a scientific paper entitled; **"FORMULATION OF BUSINESS STRATEGY BASED ON SWOT ANALYSIS ON PT. GARUDA MAINTENANCE FACILITY AEROASIA . Tbk"**

2. Research Purposes

The objectives of this research are as follows:

1. To analyze internal factors including strengths and weaknesses in PT. Garuda Maintenance Facility . Tbk
2. To analyze external factors including opportunities and threats to PT. Garuda Maintenance Facility . Tbk
3. To analyze the mapping company PT Garuda Maintenance Facility Aero Asia. Tbk is seen from the IE matrix, swot-4K diagram and SWOT matrix.
4. To find out how to formulation of business strategy based on SWOT Analysis on PT. Garuda Maintenance Facility. Tbk

3. Literature Review

Management

According to James Stoner quoted by (Sarinah Sihombing; Muljadi, 2014, p. 6) management is as a process of planning, organizing, leadership and supervision of efforts (efforts) of members of the organization and using all organizational resources to achieve the goals that have been set.

Transportation Management

According to (Suharto, 2013, p. 23) Transportation is basically the activity of moving or transferring people and goods or other resources from a place or place of origin to another place or destination by means of transportation.

Services

According to Kotler quoted by (Simbolon, 2013, p. 15) The Service is any action or action that can be offered by a party to another party, which is *inherently intangible and does not result in ownership of something.*

Rational Open management

According to Haizer and Barry Render quoted by (Rusdiana, 2014, p. 18) Operational Management is a series of activities that generate value in the form of goods and services by converting inputs into outputs.

Strategy management

Every company in achieving its original goal must have a strategy in accordance with the capabilities and environment that is in the company, this is called strategy management. According to (David, 2016, p. 3) strategy management can be defined as arts and knowledge in formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its goals.

Business

The word business comes from English, *business*. Business can be defined exchange of goods and services, or money, for mutual benefit.

According to Hughes and Kapoor quoted by (Sudaryono, 2015, p. 6) the business is an organized individual business to produce selling goods and services in order to benefit and meet the needs of the community..

SWOT Analysis Method

According to (Rangkuti, 2016, p. 19) SWOT analysis is the systematic identification of various factors to formulate the company's strategy. This analysis is based on logic that can maximize *strengths and opportunities (opportunities)*, but can simultaneously minimize *weakness and threats*

Matrix Ansoff

Ansoff Matrix or also known as Product and market growth matrix is a marketing planning tool that usually helps a business in determining product and market growth. This is usually determined by focusing on whether the product is a new or existing product, and whether *it is a new or existing market (ansoffmatrix.com, 2015)*.

4. Research Method

The place of this research is at PT Garuda Maintenance Facility AeroAsia. Tbk precisely in Hangar 4 Soekarno-Hatta International Airport Cengkareng – Indonesia.

The time used by researchers for this research was carried out in a period of approximately 2 (two) months, 1 month of data collection and 1 month of data processing which included presentation in the form of thesis and guidance process took place.

The data sources that authors use in this study are Primary and Secondary Data. Primary data is data obtained by going directly to the research object, where the data obtained actual results and can be accounted for. While an Secondary is data obtained from reading materials, namely literature, lecture notes and others related to it as well as a brief history of the company, organizational structure and task description.

The author determines *the sample* that becomes the data source is general manager business strategy and its ranks. Because according to researchers who deserve to be a source of data is General Manger Business Strategy, because it is very suitable to get valid data and according to the needs of researchers for this research.

Data collection techniques using:

- 1) Field Research techniques is a series of activities that include the search and collection of primary data from relevant sources (observations, interviews, and questionnaires)
- 2) Library Research is to obtain data in the form of supporting information and definitions that have been standard through literature (*literature*) in the form of books, notes, and previous research results and other sources that can help write this research can also be called secondary data.

The validity of the data is carried out to prove whether the research carried out is really a scientific research as well as to test the data obtained. Data validity test in qualitative research includes test, credibility, transferability, dependability, and confirmability (Sugiyono, 2017, p. 270).

1) Credibility

Credibility test (credibility) or confidence test on the data of research results presented by researchers so that the results of the research carried out are not doubtful as a scientific work is carried out.

2) Transferability

Transferability is an external validity in qualitative research. External validity indicates the degree of accuracy or application of research results to the population where the sample was taken (Sugiyono, 2017, p. 276)..

3) Dependability

Research that dependability or reliability is research if research conducted by others with the same research process will get the same results. Dependability testing is done by auditing the entire research process. By means of independent auditors or independent supervisors audit all activities carried out by researchers in conducting research.

4) Conformability

Qualitative research conformability test means testing the results of research associated with the process that has been done. If the results of the research is a function of the research process carried out, then the research has met conformability standards.

In analyzing the data that has been obtained, the author uses SWOT analysis without any hypothetical statement in this study. Some steps of the analysis framework that can be applied to obtain the results of strategic management strategy formulation are, as follows:

A. Data Collection Stage

At this stage it can be done using the IFE and EFE Matrix as follows:

1) Matrix IFE

In an *Internal Factor Evaluation* (IFE) matrices that are also formulated internal strategic factors within the framework of strengths and *weaknesses* (*Weakness*) of the company. These internal strategic factors are weighted, ranked and weighted in an *Internal Factor Evaluation* (IFE) matrices that are also formulated internal strategic factors within the framework of strengths and

weaknesses (Weakness) of the company. These internal strategic factors are weighted, ranked and weighted.

2) Matrix EFE

In an *External Factor Evaluation* (EFE) matrices that are also formulated internal strategic factors within the framework of opportunities and *threats (Threats) of the* company. These internal strategic factors are given weight, rank and weight score.

3) Matrix Internal External (IE)

The External Internal Matrix (IE) positions various divisions within the company in a nine-cell view. The IE matrix is based on two dimensions, namely the total IFE weight score on X derived from the internal sub-total factor, and the total EFE weight score on the Y axis derived from the external sub-total factor.

B. Stage Analysis

The Analysis Stage can be done using SWOT Matrix, External Internal Matrix (IE) and 4-K Matrix diagrams, as for the explanation as follows:

The SWOT matrix is an important matching tool to help managers develop four types of strategies:

- 1) SO *Strategy/Strengths-Opportunities* (Strength-Opportunities) SO Strategy leverages the company's internal strengths to draw profits from external opportunities.
- 2) WO/*Weaknesses-Opportunities* (Weakness-Opportunity) Strategy WO aims to correct internal weaknesses by taking advantage of external opportunities.
- 3) St/*Strengths-Threats* Strategy Uses the power of a company to avoid or reduce the impact of external threats.
- 4) WT/*Weaknesses-Threats* Strategy WT strategy is a defensive tactic directed to reduce internal weaknesses and avoid external threats.

C. Decision Making Stage

The decision-making stage is the final stage in planning strategies where managers must be able to determine which strategies to implement. In this stage can be helped by using a 4K SWOT analysis diagram:

1) Quadrant I

It is a very favorable situation, because the company has opportunities and strengths.

2) Quadrant II

It is a company situation that still has internal strength despite various threats.

3) Quadrant III

It is a situation that has wide opportunities but has weaknesses in the internal part.

4) Quadrant IV

It is an unfortunate situation, where there are internal threats and weaknesses.

To establish a thorough strategy, researchers analyzed the results of swot 4 quadrant analysis diagram using Ansoff matrix to better obtain competitive strategies.

Quadrant 1: *Market Penetration (Existing markets, exiting products)*.

The market penetration strategy is mainly seen in the existing customer base. It aims to improve sales performance by competing more effectively in existing markets by using existing products.

Quadrant 2: *Market Development (new markets, existing products)*.

In this strategy, the company sells existing products to new markets. Market development strategies, or extensions, involve identifying new markets for existing products. This strategy may explore new uses for products or services or perhaps add new geographic regions to add to the customer base. This can be made possible through further market segmentation to assist in identifying new customer bases.

Quadrant 3: *Product development (Existing markets, new product)*.

In product development growth strategies, new products are introduced to existing markets. Product development may differ from the introduction of new products in existing markets or may involve modification of existing products. Modifying one product may change your outlook or presentation, improve product performance or quality. Thus, it can be more attractive to existing markets.

Quadrant 4: *Diversification (new markets, new products)*.

Diversification means that the company moves into unknown or new territory with unknown or new products. When a company diversifies, it expands its product offerings and markets to other types that may involve related or un related types of products or services.

Research Results

Based on the results of interviews that have been conducted by researchers and based on direct observations can be known *internal factors* of PT GMF AeroAsia .tbk. These factors are then used in the application of the SWOT method.

A. Internal factor *analysis* at PT GMF AeroAsia. Tbk

Internal factors that will be discussed by researchers are *Strength (Strengths)* and *Weakness (Weakness)*, the discussion is as follows:

1. Strengths

The strength of the company that can not be easily equated or imitated with its competitors, this is called a *special competency (Distinctive Competencies)*, thus resulting in a comparative advantage owned by the business unit.

a) Sufficient aircraft maintenance capacity

GMF AeroAsia is a company that owns a large aircraft hangar in Indonesia. GMF has a large hangar at Soekarno-Hatta International Airport, making it easier to provide maintenance services to service users. The hangar is located at

the International airport which is the largest airport in Indonesia. GMF AeroAsia itself has a large number of hangars in the world, namely as many as 4 hangars, including: hangar 1 has 2 line wide body *with* an area of 22,000 sq-m, Hangar 2 has 3 line wide body / 6 line narrow body with an area of 23,000 sq-m, hangar 3 has 3 line wide body *with an* area of 23,000 sq-m, and hangar 4 has 15 narrow body lines and 1 line *for painting with an* area of 66,940 sq-m. in this situation GMF AeroAsia can not use the facilities that are owned thoroughly. More information can be found at Appendix 7. From the strength of "Sufficient aircraft maintenance capacity", judging by the IE Matrix Analyst approach, researchers gained a weight of (0.13) and a rating of (3.00), resulting in a score of $0.13 \times 3.00 = 0.39$. Meanwhile, based on SWOT 4-Quadrant Matrix Analysis approach, researchers gained weight (0.23) and rating of (3.00), so that it will produce a score of $0.23 \times 3.00 = 0.69$.

b) Captive GA fleet

GMF AeroAsia is a subsidiary of PT. Garuda Indonesia .Tbk, provides MRO (*Maintenance, Repair, and Overhaul*) services to aircraft engines from various airlines in Indonesia. GMF AeroAsia has now developed into one of the best MRO (*maintenance, repair and overhaul*) service providers in Asia even in the world.

From the strength of "*Captive GA fleet*", judging by the approach of IE Matrix Analyst, researchers gained a weight of (0.10) and a rating of (4.00), so that it will produce a score of $0.10 \times 4.00 = 0.40$. While based on SWOT 4-quadrant matrix analysis approach, researchers gained weight of (0.19) and rating of (4.00), so that it will produce a score of $0.19 \times 4.00 = 0.76$.

2. Weakness

Weakness is an internal factor that must be considered by the company, because weaknesses can be utilized by competitors. The following are the weakness factors of the company are:

a) Including weak International brands

Brand for the company is a reputation for a person. Reputation is considered to be related to the company, product, or service. Brand is also the most important asset that can be owned by the company. A good brand puts the company above your competitors.

GMF AeroAsia has been recognized as a well-known company in Indonesia. The award obtained by the company can be proof that GMF AeroAsia has become a large company in Indonesia, but the GMF AeroAsia brand in the eyes of the world has not been as good as in Indonesia. Therefore, the weak International Brand is one of the weaknesses of the company today.

From the weakness of "*Including weak international brands*", judging by the approach of IE Matrix Analyst, researchers gained weight of (0.09) and rating of (2.00), thus resulting in a score of $0.09 \times 2.00 = 0.18$.

While based on swot 4-quadrant matrix analysis approach, researchers gained weight of (0.20) and rating of (2.00), so that it will produce a score of $0.20 \times 2.00 = 0.40$.

b) Lack of strategic partnership

In the world of business cooperation between companies to earn profit is very important. GMF AeroAsia has also partnered with other MTRA to expand the market and increase its revenue. Cooperation with other partners must also be considered to be on target. According to Mr. R Rendy P as General Business Development GMF AeroAsia, still lacking in establishing strategic cooperation. Therefore, the company continues to look for cooperation opportunities to expand the company's market and revenue.

From the weakness of "Lack of strategic partnership", judging by the approach of IE Matrix Analyst, researchers gained weight of (0.09) and rating of (2.00), so that it will produce a score of $0.09 \times 2.00 = 0.18$.

While based on swot 4-quadrant matrix analysis approach, researchers gained weight of (0.20) and rating of (2.00), so that it will produce a score of $0.20 \times 2.00 = 0.40$.

B. Analysis of external factors at PT GMF AeroAsia.Tbk

External factors *that* will be discussed by the author are opportunities (*Opportunities*) and threats (*Threats*), the discussion is as follows:

1. Opportunities

Opportunity is an *external* factor that can then be utilized by the company to get a greater profit. The following are the factors that are an opportunity at PT GMF AeroAsia .Tbk:

a) LCC (Low Cost Carrier) Growth in Indonesia

Every flight requires fleet readiness. Any form of readiness on the aircraft must be thorough. The growth of LCC (*Low Cost Carrier*) in Indonesia is a factor of opportunity for the company. Although including cheap flights but must be accompanied by good safety. Therefore, maintenance interests *are* very required in each fleet.

From the opportunity of "*LCC (Low Cost Carrier) Growth in Indonesia*", judging from the IE Matrix Analyst approach, researchers gained a weight of (0.11) and a rating of (3.00), so that it will produce a score of $0.11 \times 3.00 = 0.33$.

Meanwhile, based on SWOT 4-Quadrant Matrix Analysis approach, researchers gained weight of (0.22) and rating of (3.00), so that it will produce a score of $0.22 \times 3.00 = 0.66$.

b) Large coverage space for GA services

The next opportunity owned by GMF AeroAsia is a large coverage space for Garuda Indonesia services. GMF's largest shareholding is held by PT Garuda Indonesia (persero) Tbk which is 89.1% or 25,156,058,796 shares. Starting from the *maintenance & engineering division (M&E)* Garuda Indonesia then developed into its own business unit. The division (M&E) was transformed into the *Strategic Business Unit of Garuda Maintenance Facility (SBU-GMF)* which handles all the maintenance activities of Garuda Indonesia's fleet. In 2002 GMF AeroAsia officially became a subsidiary of Garuda Indonesia.

From the opportunity of "large coverage space for GA services", judging by the IE Matrix Analysis approach, researchers gained a weight of (0.11) and a rating of (4.00), resulting in a score of $0.11 \times 4.00 = 0.44$.

While based on swot 4-quadrant matrix analysis approach, researchers gained weight of (0.22) and rating of (3.00), so that it will produce a score of $0.22 \times 4.00 = 0.88$.

2. Threats

In every company there will be threats and there will always be threats in every sphere of business. However, if the threat has been prevented from the beginning, the company will get a positive side and will create new opportunities. The following are the factors that pose a threat to PT Garuda Maintenance Facility AeroAsia. Tbk, i.e.:

a) Big airlines make their own MRO

In running the aircraft maintenance services business which is the main activity of GMF AeroAsia, there are many obstacles that occur in its implementation. One of the obstacles in the business is that there are competitors from the airline, who are able to set up their own aircraft maintenance business. This becomes a threat to GMF AeroAsia, if the company cannot determine the right strategy and cannot develop itself to get better than the competitor company will grow fast.

From the threat of "*Big Airlines* make their own MRO", judging by the IE Matrix Analysis approach, researchers gained a weight of (0.10) and a rating of (3.00), thus resulting in a score of $0.10 \times 3.00 = 0.30$.

While based on swot 4-quadrant matrix analysis approach, researchers gained weight of (0.21) and rating of (3.00), so that it will produce a score of $0.21 \times 3.00 = 0.63$.

b) Influx of foreign MRO companies in Indonesia

The next threat to GMF AeroAsia is the influx of foreign MRO companies in Indonesia, this affects the market that was originally by GMF can be taken by foreign competitors. This obstacle should be watched because it adversely affects the company if not in previous anticipation.

This is a very serious threat because GMF already controls a large market in Indonesia, if it does not determine the right strategy and cannot improve its services, then the competitors can take the market previously raided by GMF AeroAsia.

From the threat of "The entry of foreign MRO companies in Indonesia", judging by the approach of IE Matrix Analysis, researchers gained a weight of (0.10) and a rating of (3.00), thus resulting in a score of $0.10 \times 3.00 = 0.30$.

While based on swot 4-quadrant matrix analysis approach, researchers gained weight of (0.21) and rating of (3.00), so that it will produce a score of $0.21 \times 3.00 = 0.63$.

C. Mapping Position Analysis of PT GMF AeroAsia. Tbk

1. Internal and External Matrix Strategy (IE)

The IE matrix is based on two key dimensions, namely: The total IFE weight score after the axis (x) and the total EFE weight score on the axis (y). The IE matrix positions the different divisions of an organization in a nine-cell view. In the nine cells are divided into three large parts that have different strategic implications, namely:

- Cells I, II, IV are growing and building (*Grow and Building*)
- Cells III, V, VII are maintaining (*Hold and Maintain*).
- Cells VI, VIII, IX i.e. harvest or divest (*Harvest or Divest*).

The following can be seen an image of PT GMF AeroAsia's external internal matrix.

Matrixs Internal Factor Evaluaion (IFE) PT GMF AeroAsia

INTERNAL FACTORS			
STRENGHT	WEIG HTS	RATI NG	SCORE
Present in the fast flight market.	0.10	2.00	0.20
Sufficient aircraft maintenance capacity	0.13	3.00	0.39
Captive GA fleet	0.10	4.00	0.40
Controlled by the state	0.11	3.00	0.33
Cheap labor	0.10	3.00	0.30
TOTAL STRENGTH			1.62
WEAKNESS	WEIG HTS	RATI NG	SCORE
Including weak international brands	0.09	2.00	0.18
Limited maintenance capabilities	0.10	3.00	0.30
Inconsistent quality	0.10	2.00	0.20
Lack of strategic partnership	0.09	2.00	0.18
Single market and customer dependency	0.08	2.00	0.16
TOTAL WEAKNESSES			1.02
TOTAL FACTOR INTERNAL	1.00		2.64

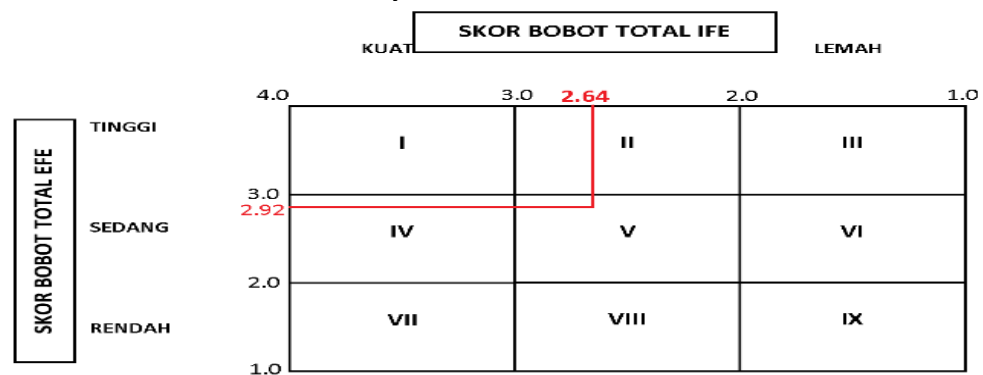
Source: Processed By Researchers.

Matrixs Exsternal Factor Evaluation (EFE) PT GMF AeroAsia

EXTERNAL FACTORS			
------------------	--	--	--

OPPURTUNITIES	WEIG HTS	RATI NG	SCORE
LCC Growth in Indonesia	0.11	3.00	0.33
The rise of immature small airlines in their maintenance	0.10	3.00	0.30
High costs and understaffing in developed markets	0.11	3.00	0.33
Potential in business addition	0.10	3.00	0.30
Large coverage space for GA services	0.11	4.00	0.44
TOTAL OPPORTUNITIES			1.70
THREAT	WEIG HTS	RATI NG	SCORE
Big airlines make their own MRO	0.10	3.00	0.30
Entry of foreign MRO companies to Indonesia	0.10	3.00	0.30
Growth of the gene aircraft care market. long pressed by the gene pesawat. New	0.08	3.00	0.24
Increasing OEM access in data and so on	0.11	2.00	0.22
Sharp increase in labor costs	0.08	2.00	0.16
TOTAL THREATS			1.22
TOTAL EXTERNAL FACTORS	1.00		2.92

Source: Processed By Researchers.



Source: Processed By Researchers

Internal and External Matrix (IE)

Can be seen in the IE matrix in figure 4.9 above, the position of GMF AeroAsia based on SWOT Analysis according to IE Matrix which is analyzed by the author is located in cell V *that is maintaining and maintaining (Hold and Maintain) or stabilization*. With a total internal strategy factor score of (2.64) and total external strategy score of (2.92). In this position Fred R.

David, strategies that can be applied to V cells are market *penetration and business development*).

2. 4-Quadrant SWOT Matrix Analysis

Analysis using SWOT Matrix 4-*Quadrant* is applied in a diagram divided into four quadrants. This analysis aims to find out the company's position and development, by summing up, where the strength and opportunity factors have positive values (+), while the weakness and threat have a negative value (-).

The formula for calculating coordinate values on the V axis is:

$$\begin{aligned}\text{Horizontal Axis (X)} &= \text{Sub Total Strength} - \text{Sub Total Weakness} \\ &= 3.00 - 2.21 \\ &= 0.79\end{aligned}$$

The formula for calculating coordinate values on the Y axis is:

$$\begin{aligned}\text{Vertical axis (Y)} &= \text{Sub Total Opportunity} - \text{Sub Total Threat} \\ &= 3.22 - 2.60 \\ &= 0.62\end{aligned}$$

Value Weighted Internal Factor SWOT Matrix 4-Quadrant PT. GMF AeroAsia

INTERNAL FACTORS			
WEAKNESS	WEIGHTS	RATING	SCORE
Present in the fast flight market.	0.19	2.00	0.38
Sufficient aircraft maintenance capacity	0.23	3.00	0.69
Captive GA fleet	0.19	4.00	0.76
Controlled by the state	0.20	3.00	0.60
Cheap labor	0.19	3.00	0.57
STRENGTH TOTAL	1.00		3.00
WEAKNESS	WEIGHTS	RATING	SCORE
Including weak international brands	0.20	2.00	0.40
Limited maintenance capabilities	0.21	3.00	0.63
Inconsistent quality	0.21	2.00	0.42
Lack of strategic partnership	0.20	2.00	0.40
Single market and customer dependency	0.18	2.00	0.36
TOTAL WEAKNESSES	1.00		2.21
TOTAL WEAKNESSES			0.79

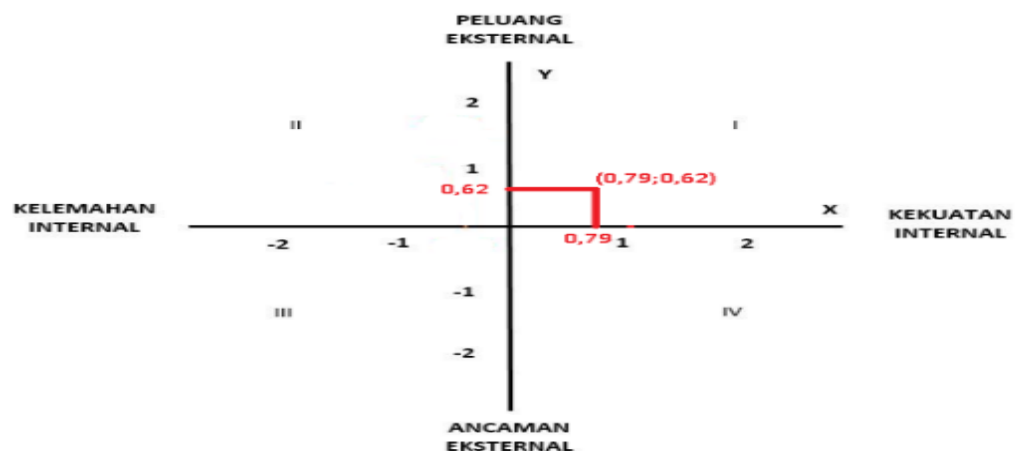
Source: Processed By Researchers.

External Factor Weighted Value SWOT Matrix 4-Quadrant PT GMF AeroAsia

EXTERNAL FACTORS			
OPPURTUNITIES	WEIGHTS	RATING	SCORE

growth of LCC in Indonesia	0.22	3.00	0.66
The rise of immature small airlines in their maintenance	0.18	3.00	0.54
High costs and understaffing in developed markets	0.20	3.00	0.60
Potential in business addition	0.18	3.00	0.54
Large coverage space for GA services	0.22	4.00	0.88
OPPURTUNITIES TOTAL	1.00		3.22
THREATS	WEIGHTS	RATING	SCORE
Big airlines make their own MRO	0.21	3.00	0.63
Entry of foreign MRO companies to Indonesia	0.21	3.00	0.63
Growth of the gene aircraft care market. long pressed by the gene pesawat. New	0.18	3.00	0.54
Increasing OEM access in data and so on	0.22	2.00	0.44
Sharp increase in labor costs	0.18	2.00	0.36
TOTAL THREATS	1.00		2.60
TOTAL THREATS			0.62

Source: Processed By Researchers.



Sources: Processed By Researchers

4-Quadrant SWOT Matrix

Based on the analysis of SWOT 4-*Quadrant that* has been authored, it can be known that the position of PT GMF AeroAsia is in the position of *quadrant I*, namely internal factors with a score (0.79) and external factors with a score (0.62). It can be concluded that PT GMF AeroAsia's position is very profitable, where the company can take advantage of opportunities and optimize its strengths to grow its business and improve its services. So based on swot diagram analysis according to Freed R. David the strategy that must be applied in this condition *is to support an aggressive growth policy (Growth oriented strategy)*. The strategy is similar (but not the same) as the SO strategy in the SWOT Matrix.

3. Strategy Based on SWOT Matrix

In determining the appropriate alternative strategy for the company is to use the SWOT matrix. The formulation of this strategy is prepared by using the results of SWOT analysis by combining various indicators contained in *(opportunities) strengths, weaknesses, opportunities and threats*. Based on the SWOT matrix, four main strategies can be prepared, namely:

- a) Strategy SO strengths-opportunities
- b) Strategy WO weaknesses-opportunities
- c) Strategy ST strengths-threats
- d) Strategy WT weaknesses-threats

Looking at the analysis results in SWOT 4-K matrix, the right strategy for PT Garuda Maintenance Facility AeroAsia. Tbk is a SO strategy.

Matrix SWOT

SWOT MATRIX ANALYSIS		Strength (S)	Weakness (W)
		1.Present in the fast flight market	1.Including weak international brands
		2.Sufficient aircraft maintenance capacity	2.Limited maintenance capability
		3.Captive GA fleet	3.inconsistent quality
		4.Controlled by the state	4.Lack of strategic partnership
		5.Cheap labor	5.single market and customer dependency
		SO Strategy	WO Strategy
1.LCC Growth in Indonesia		1. Utilizing maintenance capacity to absorb immature small airlines and LCC airlines in aircraft maintenance.	1. Establish partnerships with small airlines that are not yet mature in fleet maintenance.
	2.The emergence of immature small airlines in their maintenance		2. Absorb LCC Airlines so as not to be dependent on the single market.
	3.High cost and understaffed care in developed markets		3. Addition of business or service to have a good brand in the international
	4.Potential in business addition		
		2. Estimating cheap labor.	
		3. Utilizing state contingency for business addition.	
		4. Utilizing and	

5.Large coverage space for GA services

optimizing GA services

Threat (T)

- 1.Big airlines make their own MRO
2. Entry of foreign MRO companies to Indonesia
- 3.Growth of aircraft maintenance of old genes suppressed by new gene aircraft
- 4.Increasing OEM in data access and so on
- 5.Sharp increase in labor costs

ST Strategy

1. Optimizing Capacity to scoop up the market.
2. Optimizing cheap labor for OEM certification.
3. Utilizing the state's policy in importing aircraft maintenance needs both new generation and old generation.

WT Strategy

1. Improve maintenance ability in order to compete with foreign competitors.
2. Increase the brand in the international arena so as not to be matched by the newly created MRO.
3. Adding partnerships in order to scoop up the new generation aircraft market.

Source: Processed By Researchers

Based on this research the resulting strategy is S-O, because the strategy is best suited to be applied and used by PT GMF AeroAsia.Tbk. Determination of possible strategies produced based on the calculation of SWOT analysis according to the chart determining the company's position in quadrant I and possibly the most suitable strategy is the S-O strategy. The S-O strategy is a strategy based on the company's thinking, which is to harness all the power to seize and benefit great opportunities.

D. Formulation of Business Strategy of PT GMF AeroAsia. Tbk

From the matrix above, researchers get market *penetration and business development strategies*. Therefore, researchers use Ansoff matrix diagram in order to strengthen the strategy needed by PT GMF AeroAsia .Tbk. Here is an overview of the matrix diagram of PT GMF AeroAsia. Tbk:



Source: Processed By Researchers

Figure 4. 1 Matrix Ansoff PT GMF AeroAsia . Tbk

1. Market Penetration
 - a) Improving aircraft maintenance services at current market share.
 - b) Carefully structure the market and competitors through *annual reports*.
 - c) Preparing Human Resources to improve quality.
 - d) Provide loyalty programs to customers.
2. Business Development
 - a) Identify and implement *strategic alliance* and *joint ventures*..
 - b) Formulate a business plan to assess business feasibility.
 - c) Develop penetration to validate opportunities from potential investments.
 - d) Trade and formalize transaction documents for *joint ventures*.

5. Conclusion

1. Internal Factor Analysis (IFE) PT GMF AeroAsia. Tbk.

In terms of internal factors, the biggest strength in GMF AeroAsia's business is that the company has sufficient aircraft maintenance capacity and a Captive GA (Garuda Indonesia) fleet.

2. External Factor Analysis (EFE) PT GMF AeroAsia. Tbk.

The biggest external factor that has become an opportunity for GMF AeroAsia is the large coverage space for GA (Garuda Indonesia) services and the growth of LCC (Low Cost Carrier) in Indonesia

3. Company Mapping Analysis PT GMF AeroAsia .Tbk

- a) IE Matrix
- b) Based on the IE Matrix, this company is in a very profitable and relatively good position because it is seen from the position of cell V (Hold and maintain), it can be said that the company's position is in the area to survive and maintain.
- c) 4-K SWOT Matrix
- d) Based on the 4-K SWOT matrix, the company is in quadrant I, namely the strategy that must be implemented in this condition is to support an aggressive growth policy (Growth oriented strategy). It can be seen in the results of the 4-K SWOT Matrix in quadrant I with the horizontal axis (0.62) and the vertical axis (1.02) in an aggressive position.

- e) The SWOT Matrix, the strategy that can be used by PT Garuda Maintenance Facility AeroAsia Tbk is the SO (Strength-Opportunity) strategy.
- f) GMFAeroAsia can use alternative strategies of market penetration (Market Penetration) and business development (Business Development). Namely by utilizing the maintenance capacity to absorb small airlines and LCC (Low Cost Carrier) airlines in maintaining their fleets and optimizing GA (Garuda Indonesia) services.

References

- [1] Asosiasi Pilot Garuda. (n.d.). Pertumbuhan Penerbangan LCC Capai 20 Persen. Retrieved from <https://apg.or.id/pertumbuhan-penerbangan-lcc-capai-20-persen/>
- [2] Christian, I. (2016). PERUMUSAN STRATEGI BISNIS TAHUN 2017 GARUDA INDONESIA MENGHADAPI ASEAN OPEN SKY JAKARTA.
- [3] David, F. R. (2016). Manajemen Strategis. Jakarta: Salemba Empat.
- [4] Eryus. (2011). Manajemen Strategi Transportasi dan Logistik. Jakarta: Tirta Warna Prinindo.
- [5] Gunawan, H. (2015). Pengantar Transportasi dan Logistik. Yogyakarta: Fajar Interparma Mandiri.
- [6] HARRI PASAKTI NUGROHO, M. (2017). PERUMUSAN STRATEGI BISNIS PENGIRIMAN DOKUMEN PT. DIANTA DAYA EMBARA JAKARTA TAHUN 2017. SKRIPSI.
- [7] Hasibuan, M. S. . (2011). Manajemen Dasar, Pengertian, dan Masalah, Edisi Revisi. Jakarta: PT.Bumi Aksara.
- [8] Irwan Chaerudin dan Eka Musdalifah. (n.d.). STRATEGI BISNIS PT. POS INDONESIA.
- [9] Merdeka. (n.d.). Kembali Beroperasi 2019, Merpati Airlines Gunakan Pesawat Buatan Rusia. Retrieved July 17, 2019, from merdeka.com website: <https://www.merdeka.com/uang/kembali-beroperasi-2019-merpati-airlines-gunakan-pesawat-buatan-rusia.html>
- [10] Movanita, A. N. K. (2018). Gaji TKA di Indonesia Lebih Tinggi dari TKI di Luar Negeri, Mengapa? Gaji TKA di Indonesia Lebih Tinggi dari TKI di Luar Negeri, Mengapa?". Retrieved July 17, 2019, from kompas.com website: <https://ekonomi.kompas.com/read/2018/12/07/064500326/gaji-tka-di-indonesia-lebih-tinggi-dari-tki-di-luar-negeri-mengapa->
- [11] Muhammad, S. (2017). Manajemen Strategik : Konsep dan Alat Analisis (6th ed.). Yogyakarta.
- [12] Nasution, M. N. (2015). Manajemen Transportasi (Edisi Keem). Bogor: Ghalia Indonesia.
- [13] Rangkuti, F. (2016). Teknik Membedah Kasus Bisnis, Analisis SWOT. Jakarta: PT Gramedi.
- [14] RI, K. P. (n.d.). Kejar Sepuluh Besar Pasar Penerbangan. Retrieved July 17, 2019, from <https://kemenperin.go.id/artikel/15051/Kejar-Sepuluh-Besar-Pasar-Penerbangan>

- [15] Rufaidah, F. (2016). Manajemen Strategik (REVISI).
- [16] Rusdiana. (2014). manajemen Oprasional. Retrieved from Repository.widiatama.ac.id
- [17] Sarinah Sihombing; Muljadi. (2014). Pengantar Manajemen Edisi Revisi. Jakarta: Mitra Wacana Media.
- [18] Schofield, A. (n.d.). AirAsia Considers Prospects for Heavy Maintenance Facility. Retrieved July 17, 2019, from MRO-Network.com website: <https://www.mro-network.com/airlines/airasia-considers-prospects-heavy-maintenance-facility>
- [19] Simbolon, M. M. (2013). Ekonomi Transportasi. Jakarta: GI.
- [20] Sudaryono. (2015). Pengantar Bisnis, Teori dan Contoh kasus. Yogyakarta: Penerbit Ani.
- [21] Sugiyono. (2017). metodologi penelitian kuantitatif kualitatif dan R & D. In Bandung: Alfabeta. <https://doi.org/10.1164/rccm.200409-1267OC>
- [22] Suharto, A. M. (2013). Customer Services dalam Bisnis Jasa Transpoertasi. PT Raja Grafindo Persada.