

Competitiveness to Support the National Defense System

Adang Setia*, Sapto J. Purwowodagdo**

*Universitas Pertahanan Indonesia

**Universitas Hang Tuah

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Abstract

The purpose of this research is to identified competitiveness Indonesian Aerospace Inc. (IAe) to support the national defense system. This research is a descriptive with qualitative interview as method and using the theory of reference are: (1) Five Forces Porter; (2) Design School Mintzberg; (3) Core Competence and Resource base strategy. IAe is currently on the process of organizational transformation, the finding also suggest competitiveness can be said to be low. But there is a potential factor that causes IAe competitive advantage in the industry to improve the future development IAe and contribute to the realization of the national defense system.

Corresponding Author:

spoerwowodagdo@hangtuah.ac.id

Tujuan dari penelitian ini adalah untuk mengidentifikasi daya saing PT. Dirgantara Indonesia (PTDI) untuk mendukung sistem pertahanan nasional. Penelitian ini merupakan penelitian deskriptif kualitatif dengan wawancara dan menggunakan teori referensi: (1) Five Forces Porter; (2) Design School Mintzberg; (3) Kompetensi Inti dan Strategi Dasar Sumber Daya. PTDI saat ini mengalami proses transformasi organisasi, temuan ini juga menemukan daya saing PTDI rendah. Tapi ada faktor potensial PTDI yang menyebabkan keunggulan kompetitif dalam industri yang dapat memperbaiki perkembangan masa depan PTDI dan berkontribusi pada realisasi sistem pertahanan nasional.

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Introduction

To prepare aviation industry for support the activities of national airlines formed the Body for Preparation of Aviation Industry (Indonesia: Lembaga Persiapan Industri Penerbangan (LAPIP)). An institution formed by The Chief Staff of the Indonesian Air Force in 1961 which later became the forerunner of the Indonesian Aerospace Inc. (termed "IAe", Indonesia: PT. Dirgantara Indonesia).

IAe company is the first airline of industry company and only one in Indonesia and Southeast Asia. For nearly four decades, IAe plays a very important role in development of the aviation industry Indonesia. Since 1976, IAe participate in the world of aviation and is a contribution that boast in the history of Indonesia.

IAe company not only produces aircraft but also helicopters, weapons, as well as providing training and maintenance service for aircraft engines. IAe also be a sub-contractor for the aircraft industries in the world such as Boeing, Airbus, General Dynamic, Fokker and so forth. In

2012, was a moment of awakening IAe.

At the beginning of 2012, IAe successfully transmit four CN-235 aircraft orders South Korea. In addition, IAe is also trying to solve three CN-235 aircraft orders Indonesian Navy and 24 Super Puma helicopter from Eurocopter. IAe aircraft also building aircraft CN-295 (CN-235 Jumbo Version) and N-219, as well as cooperation with South Korea in developing stealth fighter KFX.

The existence of strategic defense industries IAe is Indonesia embodiment nation wishes to use the domestic production of defense equipment aimed at supporting defense system that has sustainable self-sufficiency power (Indonesian Ministry of Defence, 2010). Improving the ability of IAe in producing modern means of defense and competitiveness will increase self-reliance in meeting the needs of national defense facilities.

IAe capabilities in the fulfillment of the national air defense equipment support the realization of

the national defense system. Several aircraft produced by IAe can be used by the military to support national defense. IAe capability in providing transport aircraft being for military purposes is expected to maintain the continuity of the air defense procurement for the national defense.

The use of aircraft produced by IAe to support military operations is expected to promote the progress of the national defense industry. Regulations governing the use of the product so that the domestic defense industry, was an attempt to promote the progress of the national defense industry. The government's commitment to using production IAe not solely to support the realization of national defense, but also to promote the progress of the national defense industry.

The world's aerospace industry is currently very competitive. This led the IAe to perform many strategies to maintain the existence of the business. Changes in production technology adds a new motive to penetrate the market more competitive. A complex process of

innovation production and labor incentives is a process that must be passed IAe to undertake massive expansion, if possible can only perform an export-oriented strategy globally.

Some analysis of the competitiveness IAe continue to see the power of the national aerospace industry. When viewed from a strategic analysis approach, IAe competition that has been done can be said to be the industry's own excellence internally.

However, it turns out there are a few other factors, especially external factors that have a major influence on the progress of IAe. Several external factors such as the position that raw material suppliers are still dominant, product procurement IAe by the Indonesian government, level of competition is very large and other factors.

It must be recognized that the experience of the financial crisis (1998), which makes the economy of Indonesia devastated and forced Indonesia to borrow funds to IMF. The consequences of loan funds forced

Indonesia to sign *Letter of Intent*. The adverse effect of the agreement is limitation of government capital to fund defense industry including IAe.

This complicates IAe for business development and compete in following the dynamics of the industry. On the other hand, now developed countries have moved away from institutions and regulatory reform leading to increased competitiveness and development and discovery of new technologies through research activities.

The conditions of human resources IAe today are considered important a factor supporting competitiveness of the industry. The number of employees who will be entering retirement, require replacement of new employees in accordance with the demands of competitiveness of its industry.

Delays in recruitment should be done in 2005 due to lack of working capital, slowing refreshment employees. Therefore, the condition of human resources into factors that also determine in supporting industrial competitiveness IAe. It can only be

realized if able to face the dynamic conditions doesn't yet support.

The issue of capital, production capacity, human resources and conditions of overseas competitors IAe as a challenge to be faced. On the other hand, needed a strategy how should IAe improve its competitiveness especially for the domestic market and the global market if necessary.

Porter's Five Forces Model

Porter appears to have been more interested in taking his concepts to an even more macro level, particularly to the competitive advantage of countries, rather than to micro economics. Porter's model, whilst it has done extremely well in occupying textbook space, does not seem to have captured the imagination of other theorists (Grundy, 2006).

In any industry, competition is driven by five competitive forces: the bargaining power of buyers, the nature and intensity of the rivalry among existing competitors, the threat of new entrants, the threat of substitute products or services, and the bargaining power of suppliers. The

composition and strength of these forces collectively determine the nature of industry competition and the average profitability for incumbent competitors. Industry structure changes when new technology, customer needs, or other factors shift these five forces (Porter, & Heppelmann, 2014).

Research environment is described with the situation of the firm's five industrial competitive forces: threat of entry, intensity of competition, power relative to buyers, power relative to suppliers, and threat of substitutes (Hernandez-Espallardo and Elena Delgado-Ballester, 2009).

Five Forces model supports a strategic analysis of the interactions between organizations, and the structures that frame their relative success and positions within that structure (Marshall, 2013). The model frames strategic analysis of the structure of any domain using the eponymous five forces (Figure 1). As for some of the driving force of competitive ability of the company in question Porter among others (Grundy, 2006): (1) The bargaining power of the buyers; (2) Entry barriers; (3) Rivalry; (4) Substitutes; and (5) The bargaining power of the suppliers.

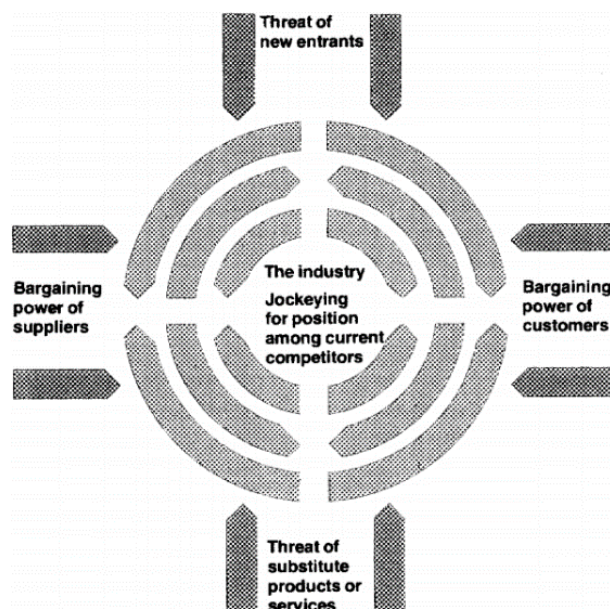


Figure 1. Forces Governing Competition in an Industry (Porter, 1979)

Using five forces as an analytical tool is expected to present in-depth analytical framework to help companies analyze the industry. The resulting analysis is intended to predict the future evolution of the industry, understand competitors and its own position, and translate this analysis into competitive strategy in a business. Porter's model was thus a valuable and workable concept but one that had some significant practical drawbacks, unless of course the model was developed further (Grundy, 2006).

A theory of competitive rationality that proposes a firm's success depends on the imperfect procedural rationality of its marketing planners (Dickson, 1992).

***The theory of "Design School"
Mintzberg (1990)***

Three are prescriptive in orientation, treating strategy formation as a process of conceptual design, of formal planning, and of analytical positioning (the latter including much of the research on the content of competitive strategies). Among the schools of thought on strategic management, there is general

agreement about the difference between strategic content and process (Olson, Gough, & Bokor, 2015).

The quasi-optimum can be reached if all the necessary knowledge is possessed by strategists, if a system of preferences is already established, and if the relationship between means and ends is known (Tsoukas, 1996).

Six other schools deal with specific aspects of the process in a descriptive way, and are labeled the entrepreneurial school (concerned with strategy formation as a visionary process), the cognitive school (a mental process), the learning school (an emergent process), and the environmental school (a passive process).

A final school, also descriptive, but integrative and labeled configurational, by seeking to delineate the stages and sequences of the process, helps to place the findings of these other schools in context (Mintzberg, 1990). For corporate planners to formulate a strategy they would need, among other things, to be in possession of knowledge which is, to a large extent, fundamentally

dispersed (Tsoukas, 1996).

Core Competence Theory

Core competencies are the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies. Core competence is communication, involvement, and a deep commitment to working across organizational boundaries. It involves many levels of people and all functions (Prahalad and Hamel, 1990).

Companies achieving international leadership employed strategies that took advantage of their distinctive competencies. These competencies included designing new products, installing new production technologies, adapting training programs, using quality control techniques and improving supplier relationships (Dubey et al., 2014). There is a strong relationship between competitiveness sources and an enterprise's performance.

Resource-Based Strategy Theory

Realized strategy is the actual pattern of developments as represented by the outcome. This

distinction is useful in relating strategic action to outcome while highlighting the dynamics of resource-based strategy as patterns of evolving development of resources together with the environment (Chaharbaghi and Lynch, 1999).

The concept of the dynamic resource-based strategy which is based on the timely introduction of strategic resources in ensuring sustainable competitive advantage. An important consideration is that strategic resources can exist as the developmental opportunities which are linked with the evolving market scenarios that are available to the organization.

Implicit within the dynamic resource-based strategy model is the principle that today's strategic resources will represent tomorrow's potential for creating new market values that can earn a premium (Chaharbaghi and Lynch, 1999).

Research Methods

A case study approach used in this qualitative research. A case study approach can define as detailed and intensive studies on a background,

events, or a certain individual (Bogdan, 2007). To explore and study the phenomenon in Indonesian Aerospace Inc. in detail, the case study approach used in this study is the intrinsic case study. Intrinsic case study is a case study that emphasizes deep understanding of a single case does not aim to understand the general phenomenon that can be generalized, but more emphasis on intrinsic interest and eliminating generalizations, and is not intended to form a new theory.

Case study protocol is based on the content and issues to answer the research questions. Case study protocol is done by doing some revision after conducting pilot interviews, and is therefore expected to obtain reliable results (Jonker and Pennink, 2010). Case study protocol in this study using the variables needed in the analysis of the study as determined by investigators.

Results and Discussion

IAe make a paradigm shift to become a wholly state-owned enterprise follow SOE Law Mandate Number 19/2003 which is making a profit. To maintain company

sustainability, IAe should be a profit-oriented company.

A series of problems in the last five years are: (1) Deficit cash flow and negative equity; (2) Unable to meet commitments on time delivery; (3) Sales of aircraft below the installed capacity (average of six units/year); (4) Imbalance utilization of production facilities; (5) Demographics Human Resources disproportionate; (6) The legal issue unresolved, aggravate the operational and financial performance, but also inhibits the growth and survival potential IAe.

To resolve these problems, IAe need to do a program transformation through business restructuring and revitalization of the capital with three stages as follows: (a) Emergency Planning Stage (2011); (b) Stabilization and Restructuring Stage (2012-2014); (c) Growth Stage (2015-forward).

Financial Restructuring and Revitalization IAe

In the restructuring and revitalization of IAe to consider the Government's ability to perform cash and non-cash assistance to IAe to

accelerate the transformation process to rise quickly from adversity. Besides the transformation is also done by establishing cooperation with other aircraft industries in the world.

On his journey IAe has managed to get the support of the Stakeholders include: (1) Shareholders (Ministry of SOEs); (2) Ministry of Finance; (3) Ministry of Defense; (4) The National Planning Agency (termed “Bappenas”) and (5) the House of Representatives of Indonesia.

To the Stakeholders IAe has filed a Debt Conversion worth 1.452 trillion rupiah and Approval of Temporary Equity (PMS) worth 2,378 trillion rupiahs to the State Capital (PMN) in the form of non-cash valued at 3.836 trillion rupiahs. At the hearing (RDP) dated March 30, 2011, the Commission VI of the House of Representatives approved the proposal of the National Committee for the Ministry of Finance on debt conversion and validation PMS IAe into PMN non-cash valued at 1.571 trillion rupiahs. Furthermore, the Government issued Government

Regulation No. 73/2011, who approved the form of debt IAe Soft Loan Agreement (SLA) 1.061 trillion; Loan Bailout BPPS Phase I 359 billion; and Debt Bailout Phase II Tranche A 32 billion into PMN non-cash, as well as the endorsement of former PMS Bailout Phase II Tranche B 127 billion into the non-cash PMN.

In 2011, IAe also has filed PMN cash worth 2.06 trillion rupiahs for a refund bailout, working capital and investment in the RR program. Then the Government and Parliament agreed to provide cash PMN of 1.4 trillion rupiahs in 2012. The funds are used by IAe for working capital contracted program of the Government, implementing programs RR, and product development.

After IAe get PMN non-cash and PMN cash then accounting IAe be better and the program of contracted long and program RR can run. Additionally, IAe can work on a new contract and new repeat orders (regular) using working capital from banks. IAe Financial Statements of the fiscal year 2012 can be used as an early indication of change for the better,

because since 2011 and earlier financial statements IAe not good.

Stages of organizational transformation strategy IAe done to encourage competitiveness to have a good industry. Several issues are being completed in phases RR is expected to be a step-in building industrial competitiveness IAe. Support the government and Parliament to IAe as strategic state, is expected to contribute profit companies. This is because the profit contribution is a measure IAe able to compete in the aircraft industry. IAe aircraft production capabilities should be encouraged to contribute benefits for company and state.

Organizational transformation efforts are expected to improve competitiveness IAe. This is because IAe has some potential in the development of the national aircraft industry. Therefore, some of the potential competitiveness of IAe need to be identified given as state-owned enterprises must also provide profit and be able to provide air defense equipment needs. His role as a strategic state is also required to

support the embodiment of the national defense system in support of air defense equipment independently and continuously.

Based on this, so in this study will be analyzed how competitiveness IAe. The analysis will be based on the theory of five forces of competitiveness (Five Forces Porter), and competence theory which became the company's competitiveness. Hopefully analysis can generate should be done IAe strategy to improve the competitiveness of the company.

Development Cooperation IAe

To accelerate the transformation process through RR, IAe also working with PT PPA and AM (Airbus Military) which is a subsidiary of Airbus and part of European Aerospace and Defence System (EADS) and begins with Strategic Collaboration Agreement (DCA) in July 2011.

Cooperation IAe and AM proceed further with Teaming Agreement (TA) in October 2011, Industrial Collaboration Agreement in December 2011, and the Partnership

Agreement to meet the needs of the Indonesian aviation industry and the world in early 2012.

Implementation Program PR is an action that is not easily done by IAe. This is because the problems that already exist and would appear to be the next corporate challenges. Meanwhile IAe also must keep production running and maintain the various certificates obtained from the regulator, quality auditors and customers.

To make a breakthrough and quick-win cooperation with the IAe AM to get experience in conducting transformation and modernization. The performance of nonfinancial IAe

has optimized the domestic market since the period of 2011 to 2013 and is now being actively penetrate the market in the ASEAN together with AM.

The workload is already high projected production until early 2015. IAe is currently able to offer three types of aircraft NC-212 (small), CN-235 (small-medium), and CN-295 (medium) to Asian markets so customers have more choices. In 2016 IAe can offer products 4th namely N-219 (small and not expensive). In terms of product development IAe capable of evolving competitive. It also has facilities IAe modification and delivery center CN-295 for the Asia Pacific market.

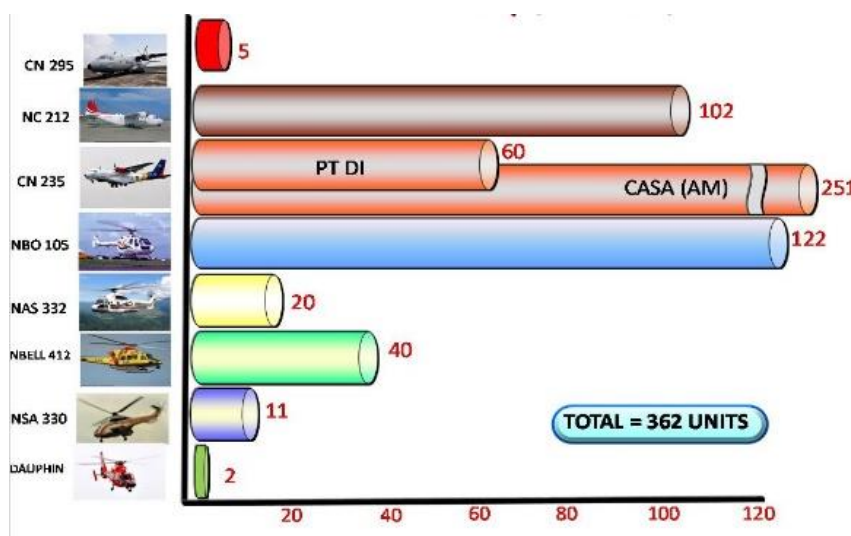


Figure 2. Aircraft Delivery

Result analysis and discussion of this study based on the data and information already acquired. The analysis will be described include:

Based Porter's Five Forces Theory

The use of Porter's Five Forces theory in this study to identify the competitiveness IAE. This theory is used as an analytical tool competitiveness IAE which emphasizes the ability in dealing with the environmental organization to be competitive. Indicators in the theory of Porter's Five Forces is a measure of competitiveness IAE be studied.

An analytical framework using the theory of Porter's Five Forces are expected to provide a picture of the competitiveness of the industry organization IAE.

Competitiveness forces by Porter's Five Forces will identify the extent to which IAE can implement a strategy to compete in the market tend to be competitive aircraft production. As the industry engaged in design, engineering and production of the aircraft at the national and Southeast Asia, IAE faced with the demanding conditions of the enterprise can

compete with the best the industry a much more established such as Boeing and Airbus.

Identification strengths of this competitiveness into information in exploring the extent to which the product and IAE position can be competitive in the production of aircraft industry.

Here are some theories of competitive advantage that is expressed by several experts, including:

Design School (Mintzberg, 1990)

The use of Mintzberg's theory of design school to complete the analysis of industry competitiveness IAE. This theory will clarify how the implementation of the strategy IAE for opportunities, weaknesses and external threats by using the power of its internal.

Strategy is emergent and is bounded by time and space, intentions and planning can lead to inflexible implementation. Intended strategy will collide with the changing operational realities over time and hence should accommodate them. Adaptive or emergent strategies may be more

successful.

Although the performances of firms with highly vacillating export strategies are likely to be mediocre or weak over time, the performances of firms with flexible export strategies that match internal resource strengths with export opportunities are likely to be strong (Ogson, Gough, & Bokor, 2015; Shirawi, & Mohammed, 2015).

Core Competence Theory

The use of this core competence theory is used to analyze the competitiveness of the industry IAE views from its ability to provide services products to consumers. Thus, far IAE has competence in the design, engineering and production of aircraft that meet the needs of consumers many good government in the country and abroad.

Resource-Based Strategy Theory

The use of resource-based theory to analyze the condition of resource IAE. Resource capacity IAE become a benchmark for the competitiveness of its industry. Strategic use of resources that can be sized to support competitiveness IAE.

National Defense System

People's defense system is a defense effort to involve all elements of the nation's total, when facing any military threat total war. The component in question is the reserve and supporting. Spare and support in the legislation consisted of citizens, natural resources, artificial resources, as well as national infrastructure that can be mobilized to support the strength of the main component.

Defense Industrial Base

Many states have a base of national defense industry in the sense that they have a sector or group of industries that depend on defense spending in a certain level and the country was dependent on self-sufficiency at a certain level in the production of weapons for defense and war (Dunne, 1995).

In some countries even said also that the defense industrial base is a core part of the national defense policy (Sandler and Hartley, 1995). Maintenance of the defense industrial base that can provide the supply in the present, the future, and the conditions of military request urging the main goal of each ministry of defense

(Dunne et al., 2007).

Industry Support IAe on National Defense System

IAe has a role in supporting the needs of many national air defense equipment required by the government. IAe capabilities in providing several aircraft for military needs can be considered to contribute to the development of the national defense industry and realize the country's defense system.

So far, the existence of IAe as national aircraft industry that supports the needs of the military is still expected to be able to build a sustainable defense industry. This is because IAe is the only national aircraft industry is very reliable in meeting the needs of the air defense equipment to defend the country.

Although until now the condition "supplies chain" supporting components industry IAe 100 percent of raw materials used imports, but in the future, will try boosted their supporting industries. Their supporting industries tier 1, 2, 3 and 4 were carried out by the domestic industry, is expected to bolster the role

of the national aerospace industry for the economy and the realization of the national defense system.

Excellence in competing IAe can be identified as follows:

IAe has the potential to compete in terms of resources. Resources IAe most visible is the human resources and financial resources. Human resources IAe proven ability, but requires management and further development given the number of employees who retired quite a lot. IAe funding sources tended to improve after the conversion of debt into the following PMN and received additional funds for the revitalization and restructuring, so that companies are now becoming more "bankable".

IAe has the potential to compete to manage the company's strategy to compete in the aircraft industry. The process of organizational transformation can evoke IAe reputation as a company that can develop the aircraft industry.

IAe has the potential to compete on core competencies are held primarily in serving customers in

the product transport plane. The success of IAe to produce and develop the transport aircraft capable of delivering services to both government and consumers abroad.

IAe while able to provide support to the realization of the country's defense system. As the aircraft industry IAe can produce several aircraft that can be used by the military, especially for this type of transport aircraft.

Conclusions

Competitiveness aircraft industry IAe can be identified as the following. *First*, most components production aircraft rely IAe suppliers abroad. Nevertheless, during this IAe able to maintain good relations with its suppliers and can sustain the production of the aircraft.

Second, IAe capabilities in developing branding strategies such as building, taking market “captive market”, in serving the product in accordance with the wishes of consumers (customer oriented) and able to take on the government market optimally.

Third, IAe able to take niche market whose products are superior in its class. This also can be considered as a potential force IAe competitiveness.

Fourth, aircraft industry regulations have specific characteristics compared to other industries. So, it can be said strength in the face of potential substitutes become IAe competitiveness.

Fifth, no new competitor can compete in the aircraft industry at the national level which has the capability of design, engineering and production as IAe.

Recommendation

The IAe role is supporting (provide) national security. System security through the provision of air security system. Future studies could analyze the role of human resources and financial resources so that IAe could manage security systems effectively and efficiently.

However, in terms of the independence of the industry has not been quite good considering the number of components of industrial

production still relies on support from abroad. Therefore, IAe is expected to stimulate domestic supporting industries, to ensure the independence and sustainability of the national air defense procurement.

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