A STRATEGY ALLIANCE BETWEEN PT DIRGANTARA INDONESIA AND AIRBUS MILITARY (CASE STUDY PT DIRGANTARA INDONESIA)

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Abstract—PT Dirgantara Indonesia (PT DI) is one of the aircraft manufacturing companies in Indonesia. The tight of competition in aerospace industry needs to improve its performance to gain niche market. Therefore, Ministry State of Own Enterprises has instructed PT Perusahaan Pengelola Aset (PT PPA) and PT DI to restructure and revitalize company with supported by Airbus Military as a strategic alliance partner, in order to increase the performance of production capacity, aircraft sales, and financial. This study focuses on the lifecycle of strategic alliance between PT DI and Airbus Military that consists of planning, formation, operation and termination phase. Strategic alliance is classified into stakeholder support, matching strategic, cross-culture understanding, initial goals and reason, forms of co-operation, alliance initial agreement, human resource management, organizational arrangement, management control system, internal drivers, and external drivers. We use technic in-depth interview and internal data to analyze the strategic alliance between PT DI and Airbus Military. The life cycle of strategic alliance within one and half years between PT DI and Airbus Military includes planning phase, formation phase, and operation phase. After identifying the life cycle of strategic alliance phases, PT DI should improve performance and take benefits from this strategic alliance. Strategic alliance agreement between PT DI and Airbus Military is joint operation or non-equity alliance. It is expected to evolve become equity alliance that requires share of ownership among parties. This study provides strategic alliance evolution that requires company to place trust and commitment, organizational, society, technological, and financial. The result gives contributions for the strategic alliance theory especially in alliance evolution.

Keywords: strategic alliance, aircraft manufacturing, alliance evolution

1. Introduction

Strategic alliances can be effective ways to diffuse new technologies faster, enter a new market, pass government restrictions, and learn from the leader companies in aircraft manufacturing. Strategic alliance projects often fail because of mistaken that made by management. By using a well-managed strategic alliances agreement, companies can gain in markets that would otherwise be uneconomical (Elmuti & Kathawala, 2001). To create a successful alliance, we must consider time and energy well. It is essential that corporations enter into strategic alliances arrangements with a comprehensive plan outlining detailed expectations, requirements, and expected benefits (Elmuti & Kathawala, 2001).

PT DI is one of the indigenous aerospace companies in Asia with core competence in aircraft design, development and manufacturing of civilian and military regional commuter aircraft. Since being established in 1976, the company has successfully exploited its ability as industry of aircraft manufacture. The main business issues of PT DI are: limitation of production capacity and facility aircraft manufacture, stagnation of aircraft sales per year. These are caused by limited working capital, time delivery schedule, and unbalanced between competence employee and cost. By restructuring financial and revitalizing production can improve its corporate performance to face the challenges in the aerospace industry.
The purpose of this study is to define a strategic alliance life cycle-phase between PT DI and Airbus Military as basic evolution alliance agreement in the future. In addition, the researches provide contributions for the strategic alliance theory especially in the evolution of strategic alliance.

2. Business Issue Exploration

Now days, price competition among aircraft manufacturers can lead to press the cost. Alteration of transportation regulatory encourages the development of new classes of aircraft product variation range. Indonesia’s aerospace sector has traditionally received strong financial and political support from Indonesian Government. However shortage of capital becomes the greatest obstacle in aircraft industry. Recently PT DI also faces those problems, as the result organic growth is difficult to improve performance. Inorganic growth makes an appropriate choice for PT DI to restructure and revitalize alliance collaboration with Airbus Military. This strategic alliance collaboration is expected to be mutual benefit for both parties in the future.

A. Conceptual Framework

The Airbus Military of this study is to determine the steps of strategic alliances between PT DI and Airbus Military in the aircraft manufacturing industry. Selecting the right partner plays important role in aircraft industry, such as gain distribution to access new market and foreign market, gain access to resources (financial, facilities, expertise), enhance and retain competitive advantage like a defend market share and economy of scale (reduce cost, increase efficiency and effectiveness).

There are four phases in the strategic alliance life cycle to measure key successful factors include:

1. Planning phase
2. Formation phase
3. Operation phase
4. Termination phase

![Alliance Lifecycle Phase](image)

Figure 1. Alliance Lifecycle Phase

Source: (Wahyuni, 2003), (Lorange & Roos, 1992), (Mockler., 1999), (Wandebori, deBruijn, & Steenhuis, 2011)

Each phase has variable factors to measure data validity and compares actual result with proposed theoretical.

Planning Phase

Three factors are identified to influenced planning phase are: stakeholder support, matching strategic, and cross culture understanding.
Stakeholder Support
PT DI is one of the strategic industries in Indonesia and wholly owned by Ministry of State Owned Enterprises (MSoE). According to the Basu (1994), and Moore (1992), stakeholder support can divide into internal organization support and society support. There are two important dimensions to screening business strategic partner candidate.

Matching Strategic

Cross-culture Understanding
To examine cross culture, we not only identify organizational structure, but also distinguish characteristic of their country companies, industry, and professional cultures. To reach a successful strategic alliance must cultivate a transparent culture around companies (Biggs, 2006). The component to assess cultural understanding are trust and commitment.

Formation Phase
This phase is to define strategic alliance that will be used with chosen partner. This phase has four key factors includes initial goals and reason, forms of co-operation, partner selection, and alliance initial agreement.

Initial goals and reason
Short term and long term goals with strategic alliance partner without competency and compatibility can lead to the different direction among partners. PT DI and Airbus Military should place the main goals as the key important factors in this phase.

Forms of co-operation
Both partners should be the most appropriate forms of co-operation for the strategic alliance collaboration. During alliance agreements, it always appears uncertainty situation and flexibility conditions.

Partner selection
Companies need select partners carefully because there are risk consideration and investment involvement. The process of partner selection is step to reach successful of strategic alliance.

Alliance initial agreement
Alliance initial agreement is related to the difficult issue of how to place value on the partner’s initial contribution to the alliance (Child & Faulkner, 1998). There are many issues related to the initial agreement before making among partners, include the revenue sharing, intellectual copyrights, warranties, and the most important is how to resolve conflicts that appear between partners, because this can be an obstacle in the future.

Operation Phase
Most of successful companies in achieving alliance learning objectives depend on several dimensions of knowledge and organizational structure. There are three main elements in the operation phase; human resource management, organizational management, and management control system.

Human Resource Management
Human resources management refers to all of the dedicated activity that an organization uses to affect the behaviors of all the people who work for it (Jackson & Schuler, 2003). A good human resources management that identifies each person’s skills, that motivates employees to use those skills and places the appropriate individuals at the key positions will have a great impact on the alliance’s effectiveness.

Organizational Management
According to the Pucik (1988), competitive advantage of a firm can be protected only through the organization’s capability to accumulate invisible assets by a carefully planned and executed process of organizational learning. In terms of the strategic alliance, organizational management needed to give the best practice for each employee who has working during the collaboration agreements.

Management Control System
Management control system is defined as the process by which managers influence other members of the organization to implement the organization’s strategies (Anthony & Govindarajan, 1994). The top management should be given the positive influence to all of employee. And during the process influencing between top management and each of employee, there will be appear important information regarding critical issue for the successful management and strategic alliance performance indicator. Also among parties through the management can be control about strategic alliance goals as well as planning phase before.

**Termination Phase**

Both parties can make two important decisions to terminate strategic alliance agreement, first is underperforming strategic alliance agreement, and second is evolving the strategic alliance to next level agreement that can be more beneficial for both parties. Either two decisions above, there are always influences by two factor; internal drivers and external drivers.

**Internal Drivers**

Synergizing among strategic alliance objectives, strategic alliance expectancy and strategic alliance leadership are influenced for top management to take a decision to continue or terminate the collaboration agreement in the future. In addition, corporate leadership can lead the alliance into termination (Das & Teng, 1998).

**External Drivers**

The external environment can lead the alliance into termination; causes alliance formed is broadly shaped by general economic conditions and the institutional frameworks in countries of operation, including legal requirements, macro-economic policies, price control, financial capital markets, distribution channels, and method of contract enforcement (Das & Teng, 1998). Nowadays most of the alliance agreement between multinational companies in different countries, which government intervention can provides either major constraint or huge opportunities.

**B. Method of Data Collection and Analysis**

As an exploratory study, the research design utilizes a qualitative case study approach to gather in-depth information about the development of strategic alliance. Methodology using open-ended interview causes some of primary and secondary data might be still confidential for public researcher. It causes the strategic alliance between PT DI and Airbus Military still on going to prevent anything undesirable.

Data collecting from in-depth interview result conducted with PT DI respondents who has get involved in the process of alliance cooperation with Airbus Military, combined with secondary data from the alliance agreement, which data analysis will comparing with theoretical literature study. Particular interview questions about each of strategic alliance phases built to gather more deep current performance and information during collaboration between PT DI and Airbus Military. And the results has multiple evidence about the successfully progress of the strategic alliance agreement between parties.

**C. Analysis of Business Situation**

As a one of strategic corporate in Indonesia, PT DI has many external interventions especially from their stakeholder. Consequently, every single PT DI’s top management decision has public interest and responsibility. Regarding these factors, business situation analysis from strategic alliance of PT DI and Airbus Military will be elaborated from Political Economic Social and Technological (PEST) Analysis.
**Political Factor**

Government intervention provides the major constraint and opportunities for strategic alliance information. This is due Indonesian Government as a main stakeholder should give PT DI working capital loan each of period, because currently PT DI financial performance is not good enough, this is proven many aircraft and aircraft component project in the period 2008-2009 cannot be fulfill. Indeed, every single PT DI's management decision should be announce to Indonesian Government to get approval. In other hand, Government could be a great marketer for PT DI product in international market. This happen during alliance agreement with Airbus Military, which is belong to Spain Government. Strategic alliance between these two companies is a result from Government intervention among Indonesia and Spain (Europe). Airbus Military is difficulty to selling their aircraft military product in Asia, and then through joint agreement with PT DI, they expecting could be easier to selling and market their product. Political factor is very influence for strategic decision and key important decision especially in Indonesia politic culture.

**Economic Factors**

Indonesia’s financial sector made remarkable progress, the country did not witness major economic setback as a result of the impact from global financial crisis. Fitch and Moody’s recently moved Indonesia’s credit rating back to investment grade for the first time since the 1997/1998 crisis (Indonesia Economic Quarterly, April, 2012). This situation is great opportunity for PT DI and Indonesia Government to find a strategic partner in aircraft industries. In other side, Spain as Airbus Military headquarter has poor financial situation after global financial crisis, so they are also looking a match strategic partner to develop and market their product. This strategic alliance could be had a mutual benefit for both parties, PT DI wants to increasing their sales and get more aircraft project order, and Airbus Military wants to get a low cost operational component development and marketing their product to development country which is country location mostly in Asia. In addition, international alliance could be give company gain access to an established, attractive distribution channel, globally attractive product to market efficiently and effectively, and may provide a way to defend or retained against competitors who have entered their markets by competing on the competitor’s turf

**Social Factors**

International alliance will be increasing difficulty to monitor behavior and enforce contract, and if still using traditional bureaucratic approaches will not work. For this reason, organization must use clan control (Ouchi, 1980), which uses social factors, such as corporate culture, traditions, shared values, and commitment to control behavior. PT DI and Airbus Military should be clear understands about this matter, they must be suggest that mutual trust and commitment in relationship reduces the danger of opportunistic behaviors and may eliminate the need of bureaucratic control mechanism. For example, PT DI personnel should be understood about Airbus Military personnel behavior and habits, as well the differentiate culture and social life between Indonesia and Spain.
Technological Factors

The rapid technology may exceed the human resource skills and capabilities, and for this reason the company must be focused on core competencies. Company should allow to develop multiple and overlapping technologies and skills into future generations of every new product. This process can be augmented by investment in key skills, such as flexible manufacturing and total quality management. Back to the mutual trust and commitment, both PT DI and Airbus Military should have a compatible person in each position which is shared knowledge and technological will be run smoothly. In addition, internet era bring the rapidly changing information database, which the competitor information will be update, and PT DI and Airbus Military as strategic alliance partner should be anticipate with any kind of competitor’s gesture.

3. Business Solution

The research purposes to define a strategic alliance life cycle-phase between PT DI and Airbus Military as an evolution criterion of their alliance agreement in the future. As an exploratory study, the research design utilizes a qualitative case study approach to gather in-depth information about the development of strategic alliance. Which is data collecting from in-depth interview result, processing with secondary data and data analysis compare with theoretical literature study. Methodology using open-ended interview causes some of primary and secondary data might be still confidential for public researcher. It is causing the strategic alliance between PT DI and Airbus Military still on going to prevent anything undesirable.

D. Alternative of Business Solution

Strategic alliance has become an integral part of corporate planning, most likely alliance agreement between PT DI and Airbus Military. PT DI seek strategic partners for revitalization and restructuring their company with the fully support from Airbus Military.

As a strategic corporate own by government, the stakeholder intervention is the most important factor to every single decision making. There are two types of stakeholder;

1. Internal stakeholder, such as top management, staff/employee, technical personnel and local subcontractor working for PT DI.
2. External stakeholder, such as Indonesian Government by Minister of State Own Enterprises as majority shares, PT Perusahaan Pengelola Asset (PT PPA) as the company provides the project financing for all PT DI project during alliance with Airbus Military, and other foreign vendor support the raw material and aircraft components.

The strategic alliance learning progress allows partners to make it their alliance increasingly over the time. It is related to strategic alliance always characterized bring the parties unique strength to solve each of problems during alliance agreement. PT DI objective improvement may one of the stakeholder requirements to evaluate how far this strategic alliance held. PT DI’s main objective alliance agreement becomes to be recognized member of the global aerospace industry. To achieve this objective, PT DI had to give positive feedback to their stakeholders, with fully consideration about internal and external analysis. Currently, the strategic alliance between PT DI and Airbus Military is the joint operation or non-equity alliance, expected this alliance agreement will evolve to equity alliance which requires equity of ownership in the alliance.

E. Analysis of Business Solution

A first step in building an alliance evolution framework is recognizing the planning phase condition may determine alliance outcomes. One of key to success in strategic alliance is effective collaboration between the parties. The presented PT DI and Airbus Military pattern involves the relationship is market commonality and its influence on the collective’s strengths the alliance. This alliance was Airbus Military to realizing economies of scales through overlapping business but not overlapping market. The alliance collaboration between PT DI and Airbus Military has been held around one and half years, which still having few parameter indicator.
This research divides into five indicator performance alliance evaluation:

1. Financial performance
2. Organizational performance
3. Technological performance
4. Trust and commitment performance
5. Society performance

**Financial performance**
Based on information from interviews, PT DI’s financial performance during the last year has good improvement especially an Airbus component. It is evident from improvement CN-235 sales component, which one year before 2012 only 4-5 sales component, during the alliance increases until 9 component sales per year.

**Organizational performance**
PT DI and Airbus Military has their own responsibility during strategic alliance, but they are should give the best effort for collaborate agreement implementation. Airbus Military will be provide support to PT DI in conducting the alliances, and exclusively limited to the scope and purpose of the present cooperation. Airbus Military will be prepared working plans and estimated requires effort from PT DI and Airbus Military, as far as their experience in aircraft industry.

**Technological performance**
The results of technological performance during one last year are business process improvement, aircraft development product, and implementation of integrated information technology (IT) system. Airbus Military supported the PT DI’s business process such as the commercial process, from the market analysis until commercial aircraft for several customers. Other is operation production process from the aero structure machinery, aircraft integration manufacturing such as customer support and supply chain operating model, until transfer knowledge engineering process such as market research analysis and product strategy definition. IT system will be improved integrated database on each part of supply chain, procurement and supporting production activities, which Airbus Military to facilitate management control system.

**Trust and commitment performance**
Trust has been identified as important factors to makes relationship, strategic alliances, and network collaboration of firm will successful. Otherwise, trust is based on belief of one of the partner about how the other alliance partner will behave in the relationship especially during strategic alliance period. PT DI and Airbus Military has been a long relationship, which this will be a key factor to continuously this alliance for the future. On the last one year, the trust factor seems to indicate the positive trend. Expecting with this trust factor this strategic alliance may evolve toward deeper cooperation, it is not only join operation collaboration but equity strategic alliance can make this relationship is growing better.
Society performance
The management control system for the relationship requires a clear definition of the scope of the project and how the partner linked together. Based on long history of cooperation between PT DI and Airbus Military, both sides keep maintain this relationship until today. Certainly, to achieve the objectives regarding the alliance agreement have been made before.

4. Conclusion and Implementation Plan

Although the use of subjective performance measure provides much needed information regarding the limitations data collection methodology of using respondents from one partner only. Clearly the level of satisfaction with this research would enhance the reliability of the subjective measures. Hence, reliance on a single partner company respondent as a data source appears to be justifiable option, particularly when the respondent represents one of the key stakeholders.

The strategic alliance is the most possible way taken by PT DI to restructure and revitalize its company. For this purposes, external and internal analysis are the main consideration why PT DI decide to form alliance agreement with Airbus Military. Military aircraft market in Asia-Pacific is still having a huge potential than other continent. For that reason, Airbus Military wants to expand their commercial presence and business existence in Asia-Pacific to cooperate with PT DI. Along with external analysis, internal analysis has influence during implementation of strategic alliance. Airbus Military’s human resources experiences, skills and capabilities expected to share and transfer knowledge to PT DI’s personnel, because a strategic alliance is not only the partners trade access to each other’s skills or products but also mechanism to acquiring partner’s product, services, and personnel’s skills. They shall develop high quality internal communication, effective and efficiently to achieve their goals during the alliance period.

The behavior partner in the collaboration process usually offers clues to the other about its motives and hidden agenda beyond or the explicitly shared goals of the collaboration. The main responsible of top management commitment is remembering their personnel to keep working together based on each scope of work agreement what they have made before. Partners have to keep learning not only about the environment of the partnership but also norms and values that create communication styles, attitude, management style and professional culture. Insufficient information during strategic alliance can be impairing communication and relationship between partners, moreover mislead and negative interpretations in the future agreement.

The strategic alliance evolution contributes to competitiveness each of strategic alliance lifecycle phases. And if the entire prerequisites fulfill by the alliance parties, the evolution of strategic alliance
will be acquired. Successful of strategic alliance are likely to evolve towards broader and mutually beneficial for both parties.

![Diagram of Alliance Evolution]

**Trust & Commitment**

Trust and commitment can make to the next level of alliance agreement, as long as the parties can shows higher levels of commitment to fulfill alliance agreement. Currently, PT DI and Airbus Military performed non-equity strategic alliance, which they agreed to cooperate only in manufacturing development, selling product and services. In the future, PT DI and Airbus Military expected to increase their alliance agreement to equity alliance form, where they entered into collaboration with the property rights of the shares in the partner community.

**Organizational**

As well as trust and commitment, organizational arrangement also can transform from independent organizational to become new organizational formation and capabilities to developed a new business unit that expected by PT DI and Airbus Military can improve their sales, productivity and financial performance. It is possible to develop a new market in aircraft manufacturing industries. The improvement of corporate performance is characterized by increasing market share. Through this strategic alliance PT DI need to revitalize production manufacture and restructure financial performance. If PT DI can achieve these goals achieved, Indonesian Government as major stakeholder will be able to secure public offering if its ownership.

**Financial**

Indeed, the increase of market share will provide profit to the company. In the short period, PT DI could achieve huge profit margin. In the long period, PT DI is more likely as the prominent the world class aircraft manufacture, where it can create the economies of scale to provide a competitive price. The strategic alliance relationships require companies to place more emphasis on relatively subjective criteria such as trust and commitment. Level of trust in strategic alliance is the decision to rely on the alliance partner under the condition of uncertainty and vulnerability with expectancy that each party will be not detrimental and opportunistically actions. Indeed, non-financial and financial performance become a benchmark the extent to which performance of strategic alliance.

The success of strategic alliance evolution provides possibilities of process to reach business goals and objectives between partners. For example, previous postponed projects of PT DI can bring sharing of revenue for both partners and invent new aircraft model. Moreover, this research found that the strategic alliance progress and development are influenced by external environments and internal conditions. For the future, strategic alliance between PT DI and Airbus Military must consider alliance evolution, which is evolved from non-equity alliance to equity alliance.
References


