

The subsidy dispute derived from the long time competition between Airbus and Boeing

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Abstract:

In this paper, Airbus, as one of the oligopoly powers in the aviation industry, will be analyzed by Porter's Five Forces Model, revealing the current market position of Airbus. The core content will be focused on the non-market issue faced by Airbus derived from the intrinsic competition between Airbus and Boeing in the US market. With the increasingly fierce competition in the global market and the growing tensions among countries, the interventions from political power entangle the conflicts between firms. In this paper, the non-market issue related to the unfair subsidies received by the European Union is a typical case of firms in a significant industry acting under the states 'control in the global market. To fully analyze the non-market issue faced by Airbus, both political and cultural reasons will be listed so does the significance of the industry itself. On top of that, the developmental strategies of Airbus to survive and improve in the current global market, aligning with the sustainable development goals (SDGs) in the worldwide perspective, will also be discussed.

Keywords: Airbus; oligopoly; aviation industry; Boeing

1. Introduction

Airbus is a multinational aerospace company headquartered in France. It was jointly founded by France, Germany, Spain, and the United Kingdom in 1970. Initially, Airbus aimed at meeting the niche market for short—to medium-range, high-capacity jetliners and competing with long-established American manufacturers [1].

According to the official website of Airbus, its investment in innovation made its products gradually occupied larger market share, and now Airbus is the world's second-largest maker of commercial aircraft

[2].

Over the decades, Airbus has expanded its market presence in the United States where the benefits and stakes are exceptionally high. As an EU-based multinational, the company's progress of operating in the U.S. market was always at the heart of geopolitics and economic implications of transatlantic trade relations. The environment of the U.S. aviation market is shaped by intense competition and shifting political dynamics which leads to higher barriers and regulations. According to the trading facts from WTO, in recent years, Airbus has faced significant nonmarket

issues about the longstanding WTO Airbus-Boeing trade disputes and eventually led to the imposition of tariffs on EU goods.

In this essay, there will be three main parts. In the first part, the general information related to Airbus position in the market will be revealed, combined with the potential development of the aviation industry. In terms of analyzing the Airbus, Porter's Five Forces model is used to display more insightful and comprehensive information. The second part focuses on the introduction of non-market issue that the Airbus entangled with Boeing. The historical background and reasons from different aspects are demonstrated in this part as well. The last part aims at providing solutions and long-term strategy for Airbus to implement, combining the sustainable concepts in the global arena.

2. Information analysis

2.1 The development of the aircraft industry

Transportation has played a consequential role in supporting the collaboration and construction of the whole society in terms of trade, tourism, education etc. The main way of transportation, including air, road and water is all about efficiencies, speed, interconnectivity, and accessibility. However, according to the sustainable goal from the UN facing the growing population and limited resources, innovation and improvements should be promoted to adapt to the increasing demand for transportation, especially when urbanization becomes an inevitable trend, which can be proved by the prediction of UN that by 2050 two thirds of the world population will live in cities. In this situation, the aviation industry, which takes advantage of fast speed and great innovation in materials, energy, and efficiency, dispatches a promising trend of expanding its industry with the breakthrough of technologies [2].

Although the global economy showed a declining trend due to the influence of COVID-19, the recovery of the economy still indicates promising growth in the demand of the aviation industry [2-3].

2.2 Use Porter's five forces to analyze Airbus's market position

2.2.1 Existing rivalry

The aviation industry shows a current trend of duopoly. Two companies involved Airbus and Boeing occupy most of the market share. Boeing, an American company, consistently try to restrict the development of Airbus by adapting to more innovation and improving productivity as the biggest competitor of Airbus. Besides, with the increasing complexity and competition in the global market,

other countries also further developed their own domestic aircraft-making companies, such as the COMAC in China, Bombardier in Canada, Embraer in Brazil, etc. The strategic importance of the aviation industry related to transporting and national security leads to active attempts from different countries to break the existing duopoly. In conclusion, the existing competition is fierce [4].

2.2.2 Threat of New Entrants

To set up an aviation company, a massive amount of physical and human capitals are required [5]. Besides, the high fixed cost requires a large amount of set-up, increasing the barrier of entry. Apart from cost, the brand loyalty built by the existing companies may restrict passengers' choices as aircraft are highly related to risk and security. In this case, the overall threat of new entrants is low.

2.2.3 Bargaining power of buyers

Technically speaking, for aircraft services, the demand and requirements of consumers are varied and substantial. Therefore, the bargaining power of buyers can be high as they can compare products from each firm with sufficient choices. However, Airbus as one of the leading companies, contributing to the duopoly with Boeing, takes advantage of technology investment, cost of production, and brand loyalty in the aviation market. Especially under the influence of the two fatal crashes of Boeing 737, airlines in the U.S. have started to be concerned the safety checks and quality control processes in Boeing, which could lead them to choose Airbus over Boeing for safety reputation [6]. Based on this, the bargaining power of buyers is moderate.

2.2.4 Bargaining power of supply

Airbus has many suppliers, and around 80% of Airbus' activity is sourced externally. Airbus works with more than 12,000 suppliers worldwide, who provide products and services for flying and non-flying parts. With an overall sourcing volume valued at approximately €49.6 billion, Airbus spends almost two-thirds of its revenue on external procurement. The demand of Airbus and other aviation companies accounts for a large proportion of a supplier group's volume or profits, which decreases the bargaining power of suppliers as they want to maintain their profits gained from the industry through reasonable pricing [7].

The great purchasing power of Airbus diminishes the bargaining power of suppliers, in this case, the overall bargaining power of supply is low.

2.2.5 The threat of substitutes

In terms of different industries, the threat of substitutes for Airbus are primarily other types of traveling methods, such as rail (trains) and road (automobile) These

alternatives pose less of a threat to Airbus because of the advantages of speed and convenience in long-distance air travel, especially oversea travels outweighed the benefits of choosing rail or road travel. However, there have been growing environmental concerns regarding air travel, as the carbon emissions contributed heavily toward global warming. So, Airbus may consider ways to commit more efforts on environmental friendly.

3. Non-market issue

3.1 Historical background

At the current state, Airbus's biggest competitor is Boeing, especially in the US market. These two companies have competed over innovation and efficiency, creating close substitutes to gain a bigger market share. Airbus has been supported by countries in EU in terms of receiving different types of subsidies, which lower the risk of innovating and investing [8].

Over the years, the EU has been providing Airbus with subsidies in various forms, such as lunch aid, debt forgiveness, grants, and equity infusions, based on the company's shares. In 2011, the WTO Appellate Body confirmed that the EU and four of its member states (Germany, France, the UK, and Spain) had provided more than \$18 billion in subsidized financing to Airbus. This subsidy led to Boeing losing sales of over 300 aircraft and a significant global market share, which would have otherwise resulted in increased revenue for U.S. producers and additional jobs for U.S. workers. In response, the US government considered these subsidies unfair and urged the European Commission (EC) to cease providing new subsidies to commercial aircraft manufacturers [9].

However, Airbus and the EU sought more time and additional subsidies for further aircraft production. Due to the lack of a resolution, the United States brought the case to the WTO [10]. However, because of the EU's persistence in providing subsidies and the inefficiency of the WTO, the US government opted for a non-market strategy by imposing additional taxes to protect its domestic aviation industry. In October 2019, the U.S. imposed tariffs on \$7.5 billion worth of European goods, including a 10% tariff on Airbus aircraft, following a WTO ruling in favor of the U.S [11]. This measure directly impacted Airbus's competitiveness in the U.S. market by elevating the cost of its aircraft for U.S. airlines.

The non-market issue over the unfair subsidies has been argued for long time. The actions taken by both Airbus and Boeing reflects the fierce competition in the aviation market, and how the market competition foster the non-market issues in terms of taxation and regulatory pol-

icies etc. However, it's still clear that the proxy argument between EU and the US at the venue of WTO indicates the challenging environment Airbus faced, which has been affected by political factors.

3.2 Reasons behind the issue

3.2.1 Intrinsic value of aviation industry

The aviation industry, as a core industry, is usually associated with trade and national security. For the US and EU, both try to gain more advantage in trade in the global market and prioritize their domestic industry for national defense. The aviation industry isn't limited to boosting the development of tourism by providing transport services, it also directly creates jobs for local markets, with examples including everything from pilots and cabin crew to air traffic controllers and aerospace engineers [12].

3.2.2 Political

The main actors US and the EU stand for different fields. Although Boeing and Airbus are two companies, the interventions from the US government and the EU greatly affect the development of the two companies in the global market. Apart from this, agencies such as the Federal Aviation Administration (FAA) in the U.S. and the European Union Aviation Safety Agency (EASA) both act in the competition between Airbus and Boeing by establishing regulatory policies. The high involvement of government agencies implies the political significance behind the competition between the two countries over the aviation industry. By controlling the aviation industry, the state can also create the benefits of exporting geopolitical power [13]. Based on this, the reason for the non-market issue can be understood by political reasons and international power dynamics [10].

3.2.3 Keep in power

The fundamental reason for the non-market issue is the competing pressure of Boeing received by the aggressive growth of Airbus. Airbus came to the aviation market over 50 years after Boeing. Initially, Boeing was a monopoly in the market, and the Airbus consortium only became a worthy competitor sometime in the late 80s. After that, the US government began to sue Airbus because of the unfair subsidies. This temporarily came to an end with the agreement on Large Civil Aircraft of 1992. However, as long as the Airbus kept expanding, the threat to Boeing remained. With no surprise, when it came to 2004, Airbus launched the A380 and A350 projects for the first time which made Boeing lose its leading position in the market for aircraft with more than 100 seats, the US government started to argue that Airbus had broken the W.T.O. Agreement on Subsidies and the General Agreements on Tariffs

and Trade (GATT) 1994 to stop Airbus from receiving subsidies. Therefore, it's reasonable to assume that the non-market issue provoked by the US was intentionally opposing the growth of Airbus in the market in terms of gaining more market shares.

4. Solutions

4.1 Market solution

In response to the regulatory sanctions upon the safety and environmental requirement, Airbus itself could keep updating its function and quality of aircraft. Airbus could distinguish itself by putting more effort into innovation, particularly in areas of sustainability and reducing carbon footprint. In order to gain a competitive edge over Boeing, Airbus could continue the development of aircraft powered by Sustainable Aviation Fuels (SAFs) or electric engines. The improvement of Technology in equipment can greatly help Airbus to meet the requirements of supervising agencies such as the Federal Aviation Administration (FAA) upon different qualitative and environmental standards, thus the products may not be easily restricted and can be adapted to the global market efficiently. Another key point must be the security of safety issues. Airbus should set higher standards for its production process, to make sure every single part perfectly meets the safety standards. Brand loyalty and trust from the consumers are the keys to the longevity of a company in the aviation industry.

4.2 Non-market tactics

To alleviate the current problem during the fierce competition with Boeing. The first tactic can be the lobbying power of Airbus deriving from the local community in the US market and the cooperation with powerful airlines [13]. The first ally of Airbus could be the major airlines in the United States. Airlines such as Delta and American Airlines are among Airbus's most significant allies as they have ordered many aircraft from Airbus. For example, according to Airbus 2024, Delta will be adding up to 40 more Airbus A350-1000 wide-body aircraft to its fleet, as it continues to streamline its fleet by improving fuel efficiency and requiring less training costs and time. As the major customers of Airbus, they may use their considerable influence in U.S. politics to support Airbus, which can be done by helping lobby the government or Congress for measures that align with Airbus's interests, particularly on tariffs and new regulations. By matching Airbus 'objectives with those of Delta and other airlines, Airbus can strengthen its advocacy endeavors and secure backing

for policies that are advantageous to both the corporation and its airline collaborators. The coalition between Airbus and Delta can present a solid stance to U.S. aviation legislators that emphasize the operational benefits of sustaining Airbus's presence in the U.S. market.

4.3 Long-term strategies

In the long term, it's essential for Airbus to expand its diversification of products, increasing the adaptivity of the company to the changing market. Upgrading aircraft models can help Airbus capture a larger market share. For example, in the process of its development, several key models such as the A300, A310, A320 family, A330, A340, A350, and A380 have not only consolidated their position in the commercial aircraft market but also promoted continuous innovation and development of aviation technology. The A380 ultra-long-range double-decker has become a milestone in aviation history with its unparalleled capacity and comfort. In this case, Airbus should increase its diversification and balance of investment by expanding its investment more widely and inclusively, which can help to respond to the market change effectively, even with external shocks such as COVID-19, etc. Compared to Boeing, Airbus still has space to improve its diversification, reducing its risk of investment and increasing its resilience in facing potential challenges. Apart from innovation, with the increasing significance of environmental problems, it's essential for Airbus to tightly combine its developmental concept with sustainability.

When it comes to environmental problem, carbon dioxide emission should be the most obvious problem due to the fuel. From a global perspective, Aviation currently accounts for approximately 2 to 3% of global carbon emissions. Counting non-CO2 emissions, its overall contribution to climate change is significantly higher, which is likely to rise with the potential increase in demand for air travel. In response, Airbus can actively be involved in the Sustainable Aviation Fuel (SAF) plan by replacing existing fossil jet fuel with raw renewable materials. The application of SAF can effectively reduce greenhouse gas emissions by up to 80 percent, effectively working for the sustainable development goals (SDGs) especially those related to climate action. In terms of SDGs, in the annual report of Airbus 2023, Airbus has worked for at least 8 sustainable goals. In particular, Airbus's sustainability strategy remains aligned with four sustainability commitments that correspond to the relevant UN SDGs: to lead the journey towards clean aerospace; to build our business on the foundation of safety and quality; to respect human rights and foster inclusion; and to exemplify business integrity. Plus, Airbus also pays attention to human rights

and the education process. For example, the Human Rights Policy embedded in its management system shows respect from Airbus to its employees.

As mentioned before, with the changing global market, Airbus needs to increase cooperation, which can shift the potential risk of growing and expanding business. This idea can be evidenced by the Partnerships solidified in 2023, including an agreement with VDL Group to develop and manufacture a laser communication terminal for aircraft; a joint venture with Voyager Space to develop, build and operate the successor to the International Space Station and so on.

5. Conclusion

Airbus's operation in the U.S. aviation market is certainly a complex landscape with adapting non-market strategies in order to lower the risk associated with non-market issues. As it continues growing its market size in the global and the U.S. market, Airbus must leverage its competitive edge to compete with Boeing. The ongoing trade disputes between the EU and the US may for now suspended, but as the US is shifting toward more protectionist stance, the uncertainty for the future is very high. Through this project, it can be concluded that the importance of understanding and levigating both market and non-market strategies for Airbus to be successful in the US market is crucial. In the future, Airbus must continue enhancing its core productive technology and adapting to the global developmental trends in order to better face new shifts in the dynamic market and geopolitical landscape, and eventually strengthen its market position not only in the US but also in the global market in the long term.

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