

Industry Competitiveness Analysis Using Porter's Five Forces: Indonesian Multi-industry Study Case

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Abstract—The COVID-19 pandemic and high competition have impacted the Indonesian economy. To survive the situation, companies need to understand their industry competitiveness. This study aims to analyze the industry factors in three different kinds of industries, namely aviation, education, and e-commerce industry. The method used in this study is a case study by explaining the industry's background and characteristics and analyzing the industry factor by using Porter's Five Forces analysis in declining, stagnant, and improving business in the COVID-19 pandemic. Aviation, education, and e-commerce industry each represents the declining, stagnant, and improving industry in the COVID-19 pandemic situation. The result shows the different characteristics between each of the industry and how the industry forces, such as the threats of new entrants, the bargaining power of suppliers, the threat of substitutes, the bargaining power of buyers, and the rivalry among existing competitors can have different impacts on the industry competitiveness. This study gives insights on how an entrepreneur should face the competition in their industry. This study is limited to the research that is done in the pandemic situation, the number of industries researched, and the scope of the industry.

Keywords: Porter's Five Forces; Strategic Management; Industry Competitiveness

1. INTRODUCTION

The competition between companies has been changing recently. A lot of these changes came not only from the direct competitors but also from other competitive forces. In addition, the current COVID-19 pandemic situation has also changed the way industry works and how companies are competing against each other. Studies commonly used Porter's five forces analysis to analyze these forces and how they affect industry (Porter, 2008).

The Indonesian economy grew minus 2.1 percent in 2020 because of the COVID-19 pandemic (Muhyiddin & Nugroho, 2021). This situation is mainly not caused by internal factors but also by external factors. These factors are essential to analyze besides the internal condition of the company, especially nowadays, in the pandemic situation and the fast-changing technology. Porter's five forces analysis helps companies assess their industry's attractiveness and their competitive position within that industry (Stonehouse & Snowdon, 2007). It has been widely use in various industries, such as transportation, agriculture, manufacture, mining, and technology industry (Anastasiu et al., 2020; Isabelle et al., 2020; Kun et al., 2021; Wellner & Lakotta, 2020).

This study analyzes the industry environmental factors affecting the business in multiple industries, namely aviation, education, and e-commerce. The analysis was done using Porter's Five Forces framework. The effects are then discussed and summarized to strengthen the theories and benefit businesses, especially within these industries.

Michael E. Porter introduced Porter's five forces in 1979 (Jung & Jeong, 2021; Porter, 2008). It is a widely used theory in terms of strategic management (Stonehouse & Snowdon, 2007). Companies should understand the forces that shape competition, especially the most potent forces that determine the industry's profitability, to formulate the priority of their strategy (Porter, 2008). If a company understand the forces within its industry, it will be able to create a business-level strategy to help the company take advantage or protect itself from the forces (Baxter, 2019). Although the nature of Porter's five forces is qualitative analysis, it is still considered effective to analyze companies (Jung & Jeong, 2021). Therefore, Porter's five forces analysis can be used to understand the level of competition and how attractive the industry is, evaluate the industry's position, and reach a competitive advantage through strategies (Barutçu & Tunca, 2012).

Porter's five forces consist of threat to entry, the power of suppliers, the power of buyers, the threat of substitutes, and rivalry among existing competitors (Porter, 2008). Threat to entry refers to how easily new competitors can enter the market (Barutçu & Tunca, 2012). When the threat is high, the industry should lower the price or raise the investment to create barriers to new competitors. A supplier is considered robust if it has considerable power to control the industry, and most businesses rely heavily on the supplier (Porter, 2008). The power of buyers represents how easy the buyers can bargain to lower the price (Barutçu & Tunca, 2012). The threat of substitutes refers to how the easy the products or services can be substituted with others in the market (Handrian & Mansoor, 2021). The last one is rivalry among existing competitors, which refers to the industry's existing competitors (Porter, 2008).

2. RESEARCH METHOD

The method for this study is a case study. The study analyzes three companies in three different industries, representing the industry that is currently having problems in the pandemic situation, the relatively stable industry, and the industry that is currently growing. There are two parts of the analysis: (1) explaining the industry background and characteristics from each of the companies, and (2) analyzing industry competitiveness by using Porter's five forces model.

3. RESULTS AND DISCUSSION

3.1 Aviation Industry

The aviation industry is one of the industries that is heavily impacted by the Covid-19 pandemic (OECD, 2020). This industry has an enormous drop in passengers. Transportation Minister Budi Karya Sumadi mentioned that the number of daily passengers in the aviation industry falls by 90 percent. In addition to that, in January 2021, there has been a massive decline by -45.8 percent growth compared to January 2020 within the travel, mobility, and accommodation e-commerce sector (We Are Social & Hootsuite, 2021).

Garuda Indonesia, the biggest airline in Indonesia with 69 destinations worldwide, faces the most challenging year caused by the COVID-19 pandemic. Garuda is the oldest airline in Indonesia, Indonesia's flag carrier, and the only full-service airline from Indonesia. Garuda was founded 72 years ago following Indonesia's Independence. Garuda was once called Koninklijke Luchtvaart Maatschappij – Interinsulair Bedrijf (KLM-IIB), and it was given from Netherlands Government to Indonesia based on the agreement made from Round-table Conference. Throughout the years, Garuda Indonesia has experienced four-time changes in name and listed 20 President Directors (Yuniarto, 2021).

Porter's five forces analysis was performed to see the larger picture of Garuda Indonesia's performance. Figure 1 shows the detail of the analysis.



Figure 1. Porter's Five Forces Analysis of Garuda Indonesia

3.1.1 Garuda Indonesia's Threat of New Entrants

Since Garuda Indonesia is the oldest airline in Indonesia, all the other competitors in the domestic industry are considered new entries. Hence, Garuda has many threats of new entries since all domestic airlines available in Indonesia are considered low-cost carriers. Therefore, these new airlines are using low-cost as their business model, which becomes their strength as they will always set their pricing lower than Garuda as a full-service carrier.

The aviation industry is one of the industries that need a large sum of capital at the beginning. Thus, the industry is hard to enter, especially for full-service airlines. So, even though many new entries in the Indonesian aviation industry, they run their business in low-cost service. In conclusion to these factors, the threat of new entries is considered to have only a low impact factor on Garuda's performances.

3.1.2 Garuda Indonesia's Bargaining Power of Suppliers

Garuda Indonesia's suppliers are Boeing and Airbus companies which supply their armadas. The other State-Owned Enterprises (SOEs) suppliers are PT. Pertamina, which became the only jet fuel supplier for Garuda Indonesia based on their agreement in March 2019, PT Aerofood ACS, as one of its subsidiaries, became Garuda's onboard catering service, and PT. Angkasa Pura as airport service management. This range of suppliers mostly came from SOEs. Most probably, this happened because there are agreements between SOEs to do partnerships around each other.

3.1.3 Garuda Indonesia's Threat of Substitutes

All other transportation services can be a substitute for domestic airline flights. Hence, in Garuda Indonesia's case, domestic airlines can be substituted with Indonesian train, bus fleet, ferry boat, travel minibus, and private vehicles. In comparison, cruise ships could substitute international airline flights with fewer choices of destinations.

COVID-19 pandemic forced people to minimize contact with others. This fact led to the weakened performance of the whole aviation industry during the COVID-19 pandemic. People have chosen to stay at home. Most of them forced or needed to travel will prefer to use their private vehicles instead of public transportation. Thus, the threat of substitutes is a high impact factor in Garuda's performances.

3.1.4 Garuda Indonesia's Bargaining Power of Buyers

As a full-service airline with a premium ticket price, most of Garuda's customers are company executives and middle-high people. According to Garuda's website, it has more than a thousand partnerships with large companies such as Astra International, Bank of Indonesia, Bank Central Asia, Bank Mandiri, Freeport, and other partnerships. These companies have special agreements with Garuda.

Nevertheless, there is a possibility that these companies would switch to other airlines if the schedule or budget do not meet their requirement. This condition could also apply to non-company customers such as regular middle-high people. These customers could choose other full-service airlines for international flights and Low-Cost Carrier for domestic flights.

Many companies started to do work from home policy for their employees during the COVID-19 pandemic. As a result, these companies are more likely also to minimize the mobility of their employees. Less mobility means minor traveling, and their ticket booking order would drop low following this new policy throughout the COVID-19 pandemic. Thus, this will highly impact Garuda's performance as most of its ticket booking came from its partnership with large companies.

3.1.5 Garuda Indonesia's Rivalry among Existing Competitors

Garuda's direct competitors as a full-service airline mainly come from international airlines such as Singapore Airlines, Japan Airline, Qatar Airways, Qantas Airline, and other international airlines. Usually, the rivalry between these airlines is based on ticket price and services.

COVID-19 pandemic impacted the performance of Garuda Indonesia and the whole party connected to the aviation industry. Moreover, some of Garuda's existing competitors from international airlines went bankrupt and were forced to close their business due to the COVID-19 pandemic. Hence, we could conclude that rivalry among existing competitors only moderately contributed to Garuda's performance as its competitors are experiencing a similar decline throughout the COVID-19 pandemic.

3.2 Education Industry

Throughout the pandemic, the education sector is forced to distance learning due to closures of school buildings and prohibition of the masses. Hence, the consequences obtained are learning losses resulting from this pandemic crisis. Around 6.25 million students all over the country should experience distance learning. (Gupta & Khairina, 2020).

Despite the sudden changes in learning methods, the number of students and schools remains stable (BPS-Statistics, 2021), as education has become one of the basic human needs in this modern era. This study analyzes Yayasan Pesantren Islam (YPI) Al-Azhar as one of Indonesia's oldest and biggest Islamic educational foundations to understand the pandemic's effect on education.

YPI Al-Azhar was founded in 1952 by 14 Islamic figures in Jakarta within the name of Yayasan Pesantren Islam. Two of the most important persons of these founders are dr. Syamsuddin, former Social Minister of Indonesia and Sjamsuridjal, the late Jakarta Mayor. While the other founders are Islamic leaders and businessman such as Soedirdjo, Tan In Hok, Gazali Syahlan, H. Sjuuib Sastradiwirja, Abdullah Salim, Rais Chamis, Ganda, Kartapradja, Sardjono, H. Sulaiman Rasjid, Faray Martak, Jacub Rasjid, Hasan Argubie, and Hariri Hady. While Buya Prof. Dr. Hamka was acting as the Grand Imam at The Grand Mosque of Al-Azhar. In the year of 1961, the late Grand Syekh of Al-Azhar Cairo named Mahmoud Syaltout visited the mosque and gave the name of the mosque "Al-Azhar."

Porter's five forces analysis was done to see YPI Al-Azhar's outside threats and to give better conclusion in YPI Al-Azhar's current condition caused by the pandemic. Details can be seen on Figure 2.



Figure 2. Porter's Five Forces Analysis of YPI Al-Azhar

3.2.1 YPI Al-Azhar's Threat of New Entrants

Nowadays there are a lot of new schools that are relatively new but are already have good reputations. Based on the observations performed in the Jakarta's Bintaro district where YPI Al-Azhar has one school branch named Islamic

Elementary School of Al-Azhar 17 Bintaro, there are around ten other elementary schools managed by smaller educational institutions such as Tara Salvia Elementary School, Islamic Elementary School of Al-Falaah, Islamic Elementary School of An-Nisa, Sekolah Alam Bintaro, Auliya Islamic Integrated Elementary School, Khalifa Islamic Montessori School, Mutiara Harapan International School, Budi Mulia Elementary School, Pembangunan Jaya Elementary School, Harapan Ibu Elementary School, and Bakti Mulya Elementary School. These schools have their teaching and learning methods different from YPI Al-Azhar has but are very similar in terms of school fees and market segment.

Lately, the demand for good education keeps on increasing. As we can see in the previous paragraph, within the Bintaro district only, ten other elementary schools are like the Islamic Elementary School of Al-Azhar 17 Bintaro – one of YPI Al-Azhar's branches. Moreover, only a modest number of capitals are needed to open a new school. Hence, the threat of new entries is considered high for YPI Al-Azhar educational business.

3.2.2 YPI Al-Azhar's Bargaining Power of Suppliers

Like any other school, YPI Al-Azhar mostly has suppliers in stationary, schoolbooks, uniforms, and banking institutions. However, suppliers can easily switch to other schools since many more similar schools are in the same market segment.

As a private foundation, YPI Al-Azhar has its power in choosing suppliers. Moreover, as they are many suppliers, switching suppliers would not be a concern for YPI Al-Azhar. In conclusion, the bargaining power of suppliers has a considerably low impact on YPI Al-Azhar's business.

3.2.3 YPI Al-Azhar's Threat of Substitutes

This pandemic era brings new opportunities regarding educational business. There are many alternatives to conventional schools like YPI Al-Azhar's branches of schools. Online schools, homeschooling institutions, religion courses, and online courses are becoming alternatives to traditional conventional schools. Before the pandemic, a homeschooling institution called Kak Seto's Homeschooling was in the Bintaro district and performed a distant learning method. After the pandemic, there are a few completely online schools arose in Indonesia. One of them is Sekolah Murid Merdeka that offers a complete online school with no entrance fee. So, parents should only pay monthly tuition fees and save more money than putting their children in regular conventional schools. Religion course is a choice for parents who put their children in general/public/non-religious schools but still want them to learn about religion. In the Bintaro district alone, religion courses are available in almost every mosque.

Based on the explanation above, we could notice a shift happened within the education business. Since the Indonesian government is forcing schools to perform distant learning due to the COVID-19 pandemic, many online schools and courses are rising. This shift brings easiness in terms of opening schools for educators. Moreover, schools mainly created for distance learning are less expensive than conventional schools with a specific online learning program designed for blended learning. Therefore, the threat of substitutes is considerably high in the educational business.

3.2.4 YPI Al-Azhar's Bargaining Power of Buyers

Based on previous explanations about the availability of other conventional schools in smaller institutions and online schools, customers have many options in choosing schools for their children. Hence, these factors will be their consideration of choosing schools, teachers' quality, religious views, facility, school fee, environment, safety, and schools' image.

Moreover, the number of homeschooling institutions, online schools, and online courses is also rising. This fact enhances parents' choices in schools. Many parents choose to put their children in non-conventional schools for many reasons. Safety, health, cost, and learning method are their primary consideration in choosing online schools. Therefore, the threat of substitutes is also considerably high for YPI Al-Azhar educational business.

3.2.5 YPI Al-Azhar's Rivalry among Existing Competitors

As YPI Al-Azhar's schools are widely spread all over Indonesia, there are few existing competitors within the same considerable range. These institutions are BPK Penabur, Bina Nusantara Group, Yayasan Pendidikan Muhammadiyah, and Yayasan Budi Luhur Sakti. Moreover, an educational institution needs years of development growth to be as substantial as YPI Al-Azhar's educational institution. Moreover, YPI Al-Azhar's existing competitors already have their customer segments as most of them have different religious views, cost differences, learning methods, and institutional focus. Thus, we could conclude that rivalry among existing competitors' influence on YPI Al-Azhar's business is low.

3.3 E-Commerce Industry

The E-commerce industry is the last industry that was analyzed in this paper. As we know, this pandemic has brought blessing to the digital start-up industry as they experienced a rising number of transactions—especially the ones in e-commerce, payment, logistic, agriculture, and health industry. Based on the Ministry of Communication and Information data, the rising usage of the e-commerce sector in Indonesia has increased significantly by 91 percent, followed by the rising internet penetration by 73.7 percent (Berita Satu, 2021).

Porter's five forces analysis was performed to see the external threats that Tokopedia might have. Figure 3 shows the detail of the analysis.



Figure 3. Porter's Five Forces Analysis of Tokopedia

3.3.1 Tokopedia's Threat of New Entrants

As the regular full-service e-commerce sector became 'ordinary' throughout Indonesian consumers, new entrants came into a more specific market with broader choices of similar products. For example, e-commerce Sayurbox, Segari, and Tanihub focus on daily groceries such as instant food, fresh vegetables, dairy and eggs, fresh meat, and frozen foods. While online e-commerce Dekoruma and Fabelio, on the other side, are selling furniture and other home living products with a broad range of choices. Hence, they could take Tokopedia's market based on their specified products.

From the observation above, we could see that competition tension between companies in the e-commerce sector is intense. It is then becoming more intense during this pandemic era where people tend to avoid conventional offline stores and chose to do online shopping on e-commerce instead. Hence, within this conclusion, we could state that threat of new entrants to Tokopedia's business development is relatively high.

3.3.2 Tokopedia's Bargaining Power of Suppliers

Tokopedia suppliers' range from courier services such as JNE, Grab, GoJek, AnterAja, and SiCepat; service providers, such as Pegadaian and Mandiri Investasi for financial services; and Sepulsa for billing and data plan provider. These suppliers are also its competitors' suppliers since they have very similar services and products. Thus, these suppliers could easily switch between existing e-commerce services.

As the e-commerce sector is rising, the number of courier services, digital financial services, and billing services is also rising. Thus, Tokopedia can easily switch between suppliers since there is a substantial rising number of suppliers. Nevertheless, financial services suppliers hold more substantial bargaining power as they are trusted to keep Tokopedia's customer's money for a certain amount of time. Therefore, changing or shifting financial services suppliers would not be as easy as changing the other suppliers because they are related to the customer's financial deposit. Thus, the bargaining power of suppliers in Tokopedia's business is considered a moderate issue.

3.3.3 Tokopedia's Threats of Substitutes

Throughout The COVID-19 pandemic, essential stores are allowed to open full service, and other stores are allowed to open within a specific time. Hence, Tokopedia's substitutes are offline stores that are still open and provide the same products, such as traditional markets, supermarkets, wholesalers, and pharmacies that are essential stores. For non-essential stores, Tokopedia's substitutes are official offline stores for non-essential goods and offline boutiques for fashion products.

Although offline stores are open during this pandemic era, online shopping services are still rising. Moreover, as people tend to stay at home, offline stores are starting to cooperate with e-commerce to boost sales. Hence, the threat of substitutes to Tokopedia's business development only contributes low impact.

3.3.4 Tokopedia's Bargaining Power of Buyers

As Tokopedia has a broad range of competitors from specific e-commerce to full-service e-commerce, customers could easily choose between their needs and concerns. For example, customers that need essential products such as groceries tend to use specific online grocery services such as Sayurbox, Segari, and Tanihub for their daily supplies. In contrast, customers with unspecified and inessential products would choose Tokopedia and other full-service online e-commerce. Nevertheless, some of the e-commerce customers have their preferences based on each e-commerce brand image. Thus, the bargaining power of customers has a moderate impact on Tokopedia's business development as some customers are loyal customers to Tokopedia.

3.3.5 Tokopedia's Rivalry among Existing Competitors

In May 2021, Tokopedia has announced its merger with Start-Up Decacorn, GoJek, and becoming GoTo. This merger is the most significant collaboration in Indonesia and the biggest among internet and media services in Asia. According to Nailul Huda, a researcher from the Center of Innovation and Digital Economy from INDEF, the merger of Tokopedia and GoJek is dedicated to competing for SEA Group and the collaboration of Grab-OVO-EMTEK (CNN Indonesia, 2021).

Thus, we can conclude that Tokopedia's biggest competitors are the SEA Group and the collaboration of Grab-OVO-Emtek. Moreover, Tokopedia has other regular e-commerce competitors such as Bukalapak, Lazada, Blibli, and JD.ID. Therefore, throughout this merger with GoJek, we could conclude that rivalry among existing competitors moderately affects Tokopedia's business development.

4. CONCLUSION

The pandemic condition has affected the way business runs. This study analyzed the industry competitiveness of declining, stagnant, and improving industries by using Porter's five forces analysis. The results showed the contrast of power dominance related to the industry. This study has several limitations. First, this study was done in pandemic conditions. Comparison between industry at the pandemic and post-pandemic situation will enrich the theory. Second, this study only used examples from three industries. Further study should analyze more industries to understand more on the strategy between industries. Lastly, this study used examples from Indonesia. Analyzing industries from other countries can improve the results.

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