# Mapping of Digital Industry Competitive Advantages: Market-Based View Approach

Ratih Purbasari\* Department of Business Administration, Faculty of Social and Political Science, Padjadjaran University

*Research* – Deasy Silvya Sari Department of International Relations, Faculty of Social and Political Science, Padjadjaran University

Zaenal Muttaqin Department of Business Administration, Faculty of Social and Political Science, Padjadjaran University

## ABSTRACT

This study aims to identify and map the digital industry in the context of competitive advantage in order to provide a better understanding of the development of the digital industry as an effort to increase competitive advantage, especially the Indonesian digital industry. This study uses a qualitative method with a descriptive analysis approach and contextual techniques regarding competitive advantage in the digital industry. For data analysis, this study uses a Market Based View approach with the Porter's Five Forces. The results of the study show that the competitive power of Indonesia's digital industry lies in the Digital Content & Application (Game and Animation) Industry. The Digital Content & Application (Game and Animation) industry has a better chance than the Digital Platform (e-Commerce) to continue to grow and be able to penetrate the international market. Recommendations that can be given from this research are that the government and private sector need to immediately develop telematics infrastructure for easy internet access that is faster with adequate capacity. Furthermore, the government also needs to develop Human Resources (HR) to obtain creative, innovative and entrepreneurial Indonesian human resources. Finally, the government needs to develop the domestic market for local products and developers to support the growth and development of a more competitive Indonesian digital industry.

Keywords: Digital Industry, Competitive Advantage, Market Based View Approach, Entrepreneurship.

# **1. INTRODUCTION**

In the last few decades, the growth in world knowledge has driven rapid technological and social advances (Albach, H., Meffert, H., Pinkwart, A., & Reichwald, R., 2015). Technology, communications and business are undergoing extensive transformations. The paradigm shift in the world of the Internet, telecommunications and cellular technology has greatly affected the business world around us (Fahri Karakas, 2009).

This era is then called the industrial revolution 4.0, which was triggered by the development of Information and Communication Technology (ICT) (Rojko, A., 2017).



This provided the foundation for the increased digitization of the business environment (Davies R., 2015; Kagermann H., 2015; Skobelev & Borovik., 2017), which thus has led to the development of the digital industry (Park, Hyungjin., Yoon, Hyenyoung., & Hwang, Junseok, 2016). Furthermore, the digital industry has become an industry that represents the development of knowledge and the era of the digital economy (Yeh, C.-C., & Xing, M.-H, 2016).

In the digital industry, the creation of goods and services occurs automatically, which largely functions without human intervention (Vogel-Heuser and Hess, 2016, Sprovieri, 2019) and describes trends in automation and data exchange in cyber-physical systems (CPS) technology, Internet of Things and Services (IoT and IoS), cloud computing, cognitive computing and artificial intelligence (AI) (Hofmann, et al, 2019). This condition then makes the current digital industry to be driven by global competition and in need of rapid adaptation of production to changing market demands (Rojko, A., 2017). With increasing competition in the digital industry, companies are required to do various things differently in order to survive and prosper. The company's competitive advantage need to be constantly improved to succeed in the global competition (Chiu, Vicki C. H & Lin, Trisha T. C, 2012).

In connection with this issue, the digital industry is also the main driver of industrial growth in Indonesia (entrepreneur.bisnis.com, 2020). A report from Temasek, Google, and Bain & Company (2019) stated that the growth of Indonesia's digital industry at the end of 2019 was the largest in Southeast Asia by touching the figure of USD 40 billion or reaching IDR 566.28 trillion. This achievement beat other ASEAN countries such as the Philippines (USD 7 billion), Malaysia (USD 11 billion), Vietnam (USD 12 billion), Singapore (USD 12 billion), and Thailand (USD 16 billion). It makes Indonesia the largest contributor to the development of the digital industry in Southeast Asia. At its peak in 2025, Indonesia's digital industry is expected to continue to rise to USD 133 billion or IDR 1,826 trillion (Alpha JWC Ventures, 2019).

The development of the digital industry is supported by internet media users in Indonesia, which continues to increase every year. Ease of access and internet devices make the growth of Indonesian internet users increase (Mochammad Fahlevi, et al., 2019). Indonesia's population of 200 million makes Indonesia a very potential market for the digital industry. Based on the latest We Are Social report in 2020, it is stated that there are 175.4 million internet users in Indonesia, meaning that 64% or more than half of the population has accessed the internet. The number of internet users continues to increase from the previous year by 17% or equivalent to the addition of 25 million internet users. From this report, it can be seen that there are 160 million users who are active on social media. This figure puts Indonesia in rank 6 of the most social countries with an average use of social media of 195 minutes per day (globalwebindex, 2020).

Some of the digital industries that are growing rapidly in Indonesia include the ecommerce platform industry (Mochammad Fahlevi, et al., 2019), as well as the digital content and application industry (Vidyantina Heppy Anandhita, 2015). More than 50% of internet users use social media to share content in Indonesia. Trust in social media in the development of news and information has revolutionized the distribution of content and has encouraged more content creators to share their work on social media, which also helps independent content creators to become recognized (dailysocial.id, 2017).

Unfortunately, Indonesia's digital industry is still facing various problems, as well as the digital platform and content and application industry as part of the digital industry itself. To date, there are more than 400 startup companies engaged in the digital industry. However, of the hundreds of startup companies, only few of them are potentially sustainable. As stated by Wilson Tjuatja Widjaja (2014), the growth of digital companies in Indonesia is quite fast, but most of them are still in the early adapters or trial and error stages (Betari Britain & Achmad Herlanto Anggono, 2014). In addition, most of them do not have qualified talents that fit the needs of the industry (Opensignal.com, 2020). In fact, human resources are the most important element in ensuring that the Indonesian digital platform and content & application industry is able to produce works of quality, useful, and make a significant economic contribution (Eko Nugroho, 2013).

The development of the digital platform and content & application industry cannot be separated from the use of technology, data, and international standardization processes. The ability to finance and access makes technology, data, and the international standardization process still not optimally presented. It is undeniable that some Indonesian digital platform and content & application industry developers still use pirated software to produce their works. The price factor for software which is still relatively high for most developers is the main reason for using pirated software. Apart from more affordable software, high-speed internet access, as well as other supporting technology infrastructure are still not sufficiently available. On the other hand, access to data (for development purposes), access to the latest technology/innovation, and international certification processes are also relatively difficult for developers to obtain. All these obstacles then contribute to the still weak competitiveness of Indonesia's digital industry in the international arena (Eko Nugroho, 2013). In fact, in facing the transition period entering the third millennium era, the government is required to have core competences capable of producing national competitive advantage. One of the key factors in generating competitive advantage is the availability of intellectual human capital who is creative, innovative, flexible and entrepreneurial (Ahmad Kamil, 2015).

The New ICT Ecosystem industry designed by Prof. Martin Fransman can be used to respond to these issues. The New ICT Ecosystem consists of 4 layers, namely the first layer (network elements), second layer (network), third layer (platform and content & applications) and the fourth layer (end consumers) (Vidyantina Heppy Anandhita, 2015). Following the current development of the digital industry in Indonesia, in this research, digital industry mapping will be carried out at layer 3, covering the digital platform and content & application industries. The digital platform industry includes e-Commerce, while the digital content & application industry includes games and animation (Simatupang, T. M., & Widjaja, F. B., 2012; Vidyantina Heppy Anandhita, 2015). To help map and analyze the competitive advantage position of the digital industry in Indonesia, this study uses a Market-Based View with Market Driven Components, which consists of Porter's five forces (Porter, 1980; Steininger, Dennis M., Huntgeburth, Jan C., & Veit, Daniel J., 2011), namely industry rivalry, entry barriers, buyer power, substitute products and power suppliers.

This study aims to identify and map the digital industry in the context of competitive advantage in order to provide a better understanding of the development of the digital industry as an effort to increase competitive advantage, especially the Indonesian digital industry. In addition, this research is expected to be able to help digital industry entrepreneurs improve their competitive ability, and help the government and other stakeholders in formulating policies that support the development of the quality of the digital industry so that it continues to be competitive.

#### **2. LITERATURE REVIEW**

#### 2.1. The Digital Industry

The last few years the world community has entered an era marked by digitization in various fields of life, especially the economy. Changes in the dynamics of the rate of movement, which were originally centralized, that humans as a vital subject in the growth and development of the economy have experienced a shift and have been replaced by mechanical automation and digitalization of technology in driving the economy (Hendra Suwardana, 2018). This era was later called the industrial revolution 4.0 which was triggered by the development of Information Technology. and Communication (ICT) (Rojko, A., 2017), which provides a foundation for the increased digitization of the business environment (Davies R., 2015; Kagermann H., 2015; Skobelev & Borovik., 2017), which has thus led to the development of the digital industry (Park, Hyungjin., Yoon, Hyenyoung., & Hwang, Junseok, 2016).

Industry 4.0 or the digital industry can be interpreted as an industrial era in which all entities in it can communicate with each other in real time at any time based on the use of internet technology and cyber-physical systems (CPS) to achieve the goal of achieving new value creation or optimization of value. already exist from every process in the industry (Hoedi Prasetyo & Wahyudi Sutopo, 2018). Specifically, in this digital industry, the creation of goods and services occurs automatically, most of which function without human intervention (Vogel-Heuser & Hess, 2016, Sprovieri, 2019) and illustrates trends in automation and data exchange in cyber-technology. physical systems (CPS), Internet of Things and Services (IoT and IoS), cloud computing, cognitive computing and artificial intelligence (AI) (Hofmann, et al, 2019).

Most of the opinions regarding the potential benefits of the digital industry are about improving the speed of production flexibility, improving customer service and increasing revenue. The realization of these potential benefits will have a positive impact on the economy of a country (Hoedi Prasetyo & Wahyudi Sutopo, 2018).

## 2.2. Competitive Advantage

Philip Selznick was the first to use the term competitive advantage in 1957. Penrose (1959) developed the concept of competitive advantage based on competence (Doris Gomezelj Omerzel & Rune Ellemose Gulev, 2011). Meanwhile, Hoffman, N.P (2000) mentioned Alderson (1965) as one of the first to realize that companies must strive for unique characteristics to differentiate themselves from competitors in the eyes of consumers. This concept was further developed by Wernerfelt (1984), Rumelt (1984) and Barney (1986). They propose the company as a unique collection of individual resources (Doris Gomezelj Omerzel & Rune Ellemose Gulev, 2011). This collection is increasingly knowledge-based (Mehri, A., & Khodadad Hosseini, S. H, 2005; Seyed Reza Jafarian & Mehdi Zeynali, 2016). Then, Hamel and Prahalad (1994) discussed the need for companies to learn how to create new advantages that will make them one step ahead of competitors Porter (1985) argues that competitive advantage is the main determinant of superior performance (Wang, Hui-Ling, 2014). Competitive advantage means the delivery of superior value to customers and economic value to the company (McGee, J., 2015). Thus, a country must create an environment in which companies will grow and develop in such a way as to be able to successfully compete in the international market (Doris Gomezelj Omerzel & Rune Ellemose Gulev, 2011).

Teece, DJ, Pisano, G and Shuen, A (1997) wrote that the company's competitive advantage is seen as a unique and different process (how to coordinate and combine), formed by (specific) company assets (such as a company's portfolio in the form of knowledge assets and complementary assets that are difficult for competitors to reach), and an evolutionary path. which is difficult to adopt or inherit. Mehri and Khodadad Hosseini (2005) explain that competitive advantage is a collection of unique capabilities of an economic unit that allows it to penetrate the desired market and give the unit the opportunity to dominate competitors (Seyed Reza Jafarian & Mehdi Zeynali, 2016). Porter (2008) defines competitive advantage as the ability obtained because it has the characteristics and resources to get higher performance (greater profit) than competitors in the same market or industry. From these opinions, the competitive advantage can be understood as the company's ability to provide customers with different, unique and difficult to imitate added value than that of its competitors, from which the company gets an advantage over competitors in a similar industry.

Porter (1985) argues that competitive advantage can be achieved through a strategy that has lower costs or is different from other small businesses. Lower costs mean that small businesses are relatively more efficient than competitors so that they are better able to produce quality goods and/or services at prices prevailing in the market. A differentiation strategy means that small businesses can produce unique or superior goods and services that result in the ability to charge a premium price resulting in higher profits (M. Gordon Hunter, 2015). The concept of competitive advantage is directly related to the value expected by the customer, so that in a comparative spectrum, if the value offered by an organization is more in accordance with the value expected by the customer, it will be concluded that the organization has an advantage in one or more criteria of being more competitive than its competitors (Mehri, A., & Khodadad Hosseini, S. H, 2005; Seyed Reza Jafarian & Mehdi Zeynali, 2016).

#### 2.4. Market-Based View

Market-Based View (MBV) argues that industry factors and external market orientation are the main determinants of firm performance (Bain 1968; Caves & Porter 1977; Peteraf & Bergen 2003; Porter 1980, 1985, 2008). One of the well-known theories in MBV is the Porter Five Forces Model (1980). The source of firm value is embedded in the competitive situation that characterizes the strategic position of the end product. Strategic position is the unique set of activities of a company that is different from its competitors. Or, the strategic position of a company is determined by how it carries out activities similar to other companies, but in very different ways. In formulating strategy, firms usually make an overall assessment of their own competitive advantage through an external environmental assessment based on the five forces model. The five strengths considered consist of: industry rivalry, entry barriers, supplier power, buyer power, and substitute products (Porter 1985). In this perspective, the source of a firm's market power explains its relative performance (Wang, Hui-Ling, 2014).

In the five forces model it is described that we are also competing with our potential competitors, namely those who will enter, suppliers, buyers or consumers, and producers of substitute products. There are five forces that determine the characteristics of an industry's competitive advantage, namely:

1. Industry Rivalry

The first strength that is usually the focus of marketers is the intensity of rivalry or competition between players in the industry. Usually the intensity of competition is influenced by many factors, which include the structure of product costs. For instance, the larger the portion of fixed costs in the cost structure, the higher the intensity of competition. This is because each seller has a high level of break even points, so generally they have to sell products in large quantities, and if necessary, "slash prices" are done in order to reach the break even level.

2. Entry Barriers

The second strength is the threat of entry from new entrants. This strength is usually influenced by the size of the barriers to entry into the industry. Barriers to entry into the industry include the large investment costs required, licensing, access to raw materials, access to distribution channels, brand equity and many more. Usually the higher the barriers to entry, the lower the threat of entry from newcomers.

3. Supplier Power

The third strength is the bargaining power of suppliers. Usually, the smaller the number of suppliers, the more important the product being supplied, and the stronger the bargaining position.

4. Buyer Power

The fourth strength is the bargaining power of the buyer, where we can see that the bigger the purchase, the more options available to the buyer and in general the stronger the buyer's position.

5. Substitute Products

The last strength is the substituted products, how many substituted products are in the market. The availability of many substitute products will limit the flexibility of players in the industry to determine the selling price of the product.

# **3. RESEARCH METHOD**

This study aims to identify and map the digital industry in the context of competitive advantage in order to provide a better understanding of the development of the digital industry as an effort to increase the competitive advantage of Indonesia's digital industry.

This study uses a qualitative method with a descriptive analysis approach and contextual techniques regarding competitive advantage in the digital industry. The data collected is secondary data from literature studies and documentation studies regarding the concept of digital industry, competitive advantage, and Market-Based views from journals, documents, books, online news, websites relevant to the topic being studied.

To help map and analyze the competitive advantage position of the digital industry in Indonesia, this study uses a Market-Based View with five forces Market-Driven Components, namely industry rivalry, entry barriers, buyer power, substitute products and supplier power (Porter, 1980, 1985, 2008; Steininger, Dennis M, Huntgeburth, Jan C, & Veit, Daniel J., 2011).

Furthermore, to ensure the validity of the data, a triangulation process was carried out using data from previous studies, related to the conditions of excellence in Indonesia's digital industry competitiveness.

# 4. RESULTS AND DISCUSSION

## 4.1 Analysis on Mapping of Digital Industry Competitive Advantages in Indonesia

The following is the result of an analysis of competitive advantage mapping based on The Market-Based View of each digital industry category in Indonesia.

### 4.1.1. Digital Platform (E-Commerce)

Digital platforms provide opportunities for business actors to more easily and efficiently explore, create and provide value in meeting target market needs (Decky Hendarsyah, 2020). Digital platforms in the form of e-Commerce are an industry that is experiencing significant growth in Indonesia. This is based on the fact that 8 million Indonesians already shop online and it is predicted that this will continue to increase. This trend has also led many players who have been selling offline to also open online shops (opensignal.com, 2020). Therefore, at the end of 2014, the Indonesian Government under the coordination of the Coordinating Ministry for Economic Affairs collaborated with the Ministry of Communication and Information and related Ministries / institutions, stakeholders from associations and e-Commerce business actors, as well as world caliber consultants Ernst & Young, began working for develop e-Commerce Roadmap and prepare a good ecosystem to develop the local e-Commerce industry. This e-Commerce Roadmap is expected to support and encourage the real growth potential of Indonesian e-Commerce (kominfo.go.id, 2015a).

Indonesia's e-Commerce market itself is projected to increase from USD 1.90 billion in 2015 to USD 4.59 billion in 2020. This makes Indonesia one of the fastest growing e-Commerce markets in the ASEAN region, after Vietnam and the Philippines (Forst & Sullivan, 2018). Supported by access to digital technology that opens increasingly complex lines of information, including in terms of consumer purchasing decisions through extracting digital information as a reliable reference source and can even be a source of inspiration. The presence of technology changes the flow of consumer behavior patterns, such as previously conventional modes of transportation and shopping (involving face-to-face processes between producers and consumers), now added with access to digital services (online ordering) as a complement to transactions and interacting with the market. In considering consumer purchases in the security aspect of the digital economy, the usability and risk factors are determining factors for consumers whether to use e-Commerce applications or not. Perceived ease of use is essential in influencing customer participation in e-commerce (Mohd Suki, Ramayah, 2008; Kim & Song, 2010; Maia, Lunardi, Longaray, & Munhoz, 2018; Asmara Indahingwati, 2019).

The potential barriers to the growth of e-Commerce in Indonesia consist of six issues, namely funding, taxation, consumer protection, communication infrastructure, logistics, as well as education and human resources. These issues must be worked on together with related institutions in order to produce comprehensive and synchronized policies. The ministries and institutions include the Coordinating Ministry for Economic Affairs, the Ministry of Finance, the Ministry of Trade, the Ministry of Transportation, the Ministry of Communication and Information Technology, the Investment Coordinating Board, the Financial Services Authority, Bank Indonesia, the Ministry of Cooperatives and SMEs, Pos Indonesia, ASPERINDO, IdEA, and others (kominfo.go.id, 2015a).

#### 1. Industry Rivalry

The rivalry between players in the e-Commerce platform industry in Indonesia is quite intense. This is due to the rapid growth of the e-Commerce industry amidst the slowdown in the country's economy. The e-Commerce industry can become one of the backbones of the national economy. As of 2018, the value of the e-Commerce market share in Indonesia has reached \$ 18 billion, the largest in the region. Meanwhile, in 2020, the volume of the e-Commerce business in Indonesia is targeted to reach USD 130 billion with an annual growth rate of around 50 percent. In addition, most e-Commerce business players in Indonesia are small and medium scale enterprises (SMEs). SMEs have proven to be major drivers of the Indonesian economy. Through e-Commerce, Rudiantara (2015) hopes that SMEs can continue to be developed and support the progress of the Indonesian economy (kominfo.go.id., 2015a).

Currently, the e-Commerce landscape in Indonesia is dominated by four big players, namely Bukalapak, Lazada, Shopee and Tokopedia. Meanwhile, outside the four players, there are many other platforms that also continue to strengthen their presence, such as Blibli, Bhinneka, Mataharimall, etc. Players with special segments such as Sale Stock, Hijub, Berrybenka etc., also still have market share. Not to mention those in the B2B special segment, namely Bizzy, Mbiz etc. A survey conducted by MarkPlus (2018) shows that currently Shopee is in first place, competing closely with Tokopedia. Previously, DailySocial also conducted a survey on the popularity of e-commerce services, placing Shopee, Tokopedia, and Bukalapak at the top. This illustrates the fairly tight competition between e-Commerce services. Each e-commerce platform developer must continue to maximize various strategies to strengthen its presence in the market. For example, Bukalapak chose to maximize advertising costs which made Bukalapak the e-Commerce platform that advertised the most. In contrast to Shopee, which tries to strengthen branding by involving famous Asian figures (such as blackpink from Korea) and holding large events (dailysocial.id, 2018).

The high competition in the e-commerce platform industry is further compounded by the Indonesian Government's policy to place Indonesia as the largest digital economy country in Southeast Asia by 2020. In accordance with the 2020 digital economy vision, Indonesia issued a number of policies to support the e-commerce ecosystem in Indonesia, such as Economic Policy Package 14 on e-commerce roadmap, 1 million free domain names, digitization of 50 million SMEs, and the movement of 1000 digital startups with a business valuation of USD 10 billion (opensignal.com, 2020.) Currently there are many business people e-commerce beginners, both online trading and digital start-ups with fresh and innovative ideas, who lack access or funding to develop their business. For this reason, the government will encourage the growth of new technopreneurs, both by involving leading technopreneurs mentors, data centers, technoparks, and providing funding (kominfo.go.id, 2015a). This policy will certainly further increase the number of e-Commerce business players with their respective advantages.

However, the consumptive and digital behavior of the Indonesian people, plus the increasing market reach, makes the e-commerce platform industry still provide great business potential. The e-Commerce sector in Indonesia only contributed 0.8% of total retail sales, far below China (11%) and the United States (8%) (opensignal.com, 2020). Thus, even though business players in the e-Commerce platform industry continue to increase which causes higher competition, the broad market share makes the e-Commerce platform business still attractive and promising.

#### 2. Entry Barriers

The entry barriers for the e-Commerce platform industry in Indonesia can be classified as low. As previously explained, various government policies were carried out to support the ease with which new e-Commerce platform businesses could enter this industry. In addition, the government fully supports the digitization of SMEs that were previously offline to online. This is because in the IT segment, the e-Commerce industry is an industry that is most highlighted and attractive to investors compared to other similar service industries or markets. The Indonesian government aims to increase the e-Commerce market value to USD 130 billion by 2020-2036, one of which is by supporting the digitization of 8 million SMEs by 2020. This is part of the government's goal to increase the value of SMEs by USD 10 billion by 2020. The Presidential Decree on the 2017-2019 National eCommerce System Roadmap, released in August 2017, has become one of the main drivers of the growth of the e-Commerce market in Indonesia (Forst & Sullivan, 2018). With this government support, it will be easier for new e-commerce platform businesses to join in to enliven this industry.

Indonesia together with twenty members of the Asia Pacific Economic Cooperation (APEC) emphasized the importance of the development of the digital economy and creative industry as an effort to encourage long-term strategic cooperation. This strategic plan is contained in the APEC Internet and Digital Economy Roadmap (AIDER). Some of AIDER's focuses are cooperation to improve digital infrastructure, Internet inclusiveness and the Digital Economy, as well as transforming traditional businesses to take advantage of the digital platform. Indonesia seeks to include creative industry issues in its strategic plan. The digital economy-based creative industry has created non-conservative jobs (kemlu.go.id, 2020).

However, several rules have been set by the government to regulate the obligations and responsibilities of digital platform providers in maintaining order of information traffic in the digital world, including (kominfo.go.id, 2016):

- a. Providing terms and conditions for Digital platform users and reporting tools
- b. Removal and blocking mechanisms for prohibited content
- c. Obligations and responsibilities of merchants (merchants)

#### 3. Buyer Power

The Buyer Power condition in the e-Commerce platform industry in Indonesia is considered **high**. The large number of purchases made by consumers through e-commerce causes consumers in this industry to have a strong position. This is because in a modern era like this, shopping that takes up a lot of time is out of date. Moreover, you have to go through city congestion to get to these shopping places. With e-Commerce, consumers will find it easy to shop quickly and be able to find various kinds of needs they need anywhere and anytime (Indonesia Investment Coordinating Board, 2020).

The potential of the e-Commerce industry in Indonesia has great potential. According to Ernst & Young's, the growth in the value of online business sales in the country has increased by 40 percent each year. There are approximately 93.4 million internet users and 71 million smartphone users in Indonesia. Not only for seeking information and chatting, people in big cities are now making the internet, especially e-Commerce, a part of their lifestyle. The consumptive behavior of tens of millions of

middle class people in Indonesia is the reason why e-Commerce in Indonesia will continue to grow (kominfo.go.id, 2015a).

## 4. Substitute Products

The conditions for substitute products in the e-Commerce platform industry in Indonesia is rather **high**. This is due to the large availability of substitute products circulating in the e-Commerce platform market, thus limiting the flexibility of players in this industry to determine the selling price of the product. In addition, e-Commerce business players are required to be able to create strong trust in their consumers. As stated by Rezaei, Amin, & Abolghasemi (2014) that trust is a perception of trust felt by users when using e-Commerce in shopping. Because trust in the e-commerce system is seen as a series related to virtue, competence, integrity formed by hard work, speed, accuracy, cost efficiency and system stability inherent in the e-Commerce platform (Mu & Pereyra-Rojas, 2017; Asmara Indahingwati, 2019)

# 5. Supplier Power

The condition of power suppliers in the e-Commerce platform industry in Indonesia is considered **low**. This is due to the large number of suppliers, making the strength of the bargaining position lower. In the e-Commerce platform industry, it is not just talking about buying and selling of goods and services via the internet. There are other industries connected to it. Such as providing delivery or logistics services, telecommunication providers, smart device manufacturers, and others. Thus, the e-Commerce industry must be guarded to be able to boost the pace of the national economy (kominfo.go.id, 2015a).

One of the important suppliers for the e-Commerce platform industry is telecommunication operators, which are currently competing to build massive infrastructure, ranging from 2G, 3G, to 4G networks. What is more, there is competition between operators which tends to be unhealthy and creates a tariff war, in which operators reduce the price as low as possible to increase their network utilization. This is also further strengthened by the proliferation of cheap smartphones that are in line with the purchasing power of the middle to lower class. Although the tariff war has had a bad impact on the telecommunications industry, its impact on society is very pronounced, where telecommunications is no longer considered an expensive item (wartaekonomi.co.id, 2018). With these conditions, supplier power tends to be low in the e-Commerce platform industry in Indonesia.

# 4.1.2. Digital Content and Applications (Games and Animation)

The potential for growth and the growing popularity of the digital content and application industry also occurs in Indonesia (Simatupang, T. M., & Widjaja, F. B, 2012). The digital content and application industry is an industry where information, knowledge, and the creativity of the actors are the main raw materials. Even the progress of Indonesian content industry players has increasingly gained international recognition with the inclusion of several national applications in Asia's Top Fifty Applications (kominfo.go.id, 2015b)

Indonesia is one of the largest countries using digital content, reaching 53 million, which means that almost all smartphone users in Indonesia are digital content users. In this case, Indonesia is ranked third in the world after the United States and Brazil (Andi Hamzah Fansury, et al, 2020). The development status of the digital content industry

reflects the level of the knowledge economy and digitization. Digital content production involves knowledge and innovation, which are both intensive and aesthetic qualities (Drake, 2005). The digital content industry aims at market orientation and customer needs, leading to greater customization (Hsin-Hann Tsai, Hong-Yuh Lee, & Hsiao-Cheng Yu, 2008). In the digital content industry, content is information in digital form about the product or service to be sold (Decky Hendarsyah, 2020).

Many things must be done by the public and the government to increase the development of digital content in Indonesia, such as building high-speed internet infrastructure, increasing the readiness of the Indonesian people to adopt internet technology in every aspect of life. If these two things can be achieved, the development of digital content in Indonesia will surely advance (Andi Hamzah Fansury, et al, 2020).

The increasing number of cellular and multimedia telecommunication equipment users is expected to be an opportunity for the development of the content industry in Indonesia. This is supported by the character of the content industry which is open to providing opportunities for developers, especially the younger generation. Saleh Husin as Minister of Industry of the Republic of Indonesia said that for the creative industry in the animation and interactive games subsector, even though its contribution is still small to GDP, this industry has great potential to develop. Saleh Husin also encouraged the television industry to provide opportunities for animated products made by the nation's children in the form of broadcast slots. Through this method it is believed to be able to accelerate the development of the creative industry so that later it will be able to penetrate the film industry such as Hollywood, the advertising industry and global multimedia (kominfo.go.id, 2015b).

Meanwhile, the growth of interactive digital games in Indonesia has increased by 300% for 3 years. Indonesia has a target to increase this figure as well as the percentage of local game developers involved in the digital economy industry (kemlu.go.id, 2020). Video game play has been transformed into a game that is competitive, the term is commonly referred to as eSports. Many opportunities are open with the development of the eSports ecosystem. One of the things that is unique is that currently there are a lot of game-themed video content on the YouTube application. Research results report that the content most accessed in Indonesia is the game genre. Mobile games contribute 60% to the company's digital service revenue. The birth of eSports as a new industry is certainly supported by technological developments, one of which is smartphones. Research shows that currently the need for smartphones is not only for communication, but also for playing games. With the birth of IESPL (Indonesian Epsorts Premier League), it is hoped that games will no longer be considered a negative thing. But it can also be used to increase economic productivity, one of which is becoming a professional player or content creator (Roy Rinaldi & Iwan Krisnadi, 2019).

#### 1. Industry Rivalry

The intensity of rivalry between players in the digital content and application industry in Indonesia is high. The development of infrastructure and information technology and the growth of the productive age population have made Indonesia a market as well as a candidate for a very tempting pool of talents for the digital content and application industry. This is evidenced by the increasing number of foreign digital game and animation content and application providers that provide services and even open branch offices specifically in Indonesia. In the game industry today, there are at least two big players who have opened branch offices in Indonesia: Gameloft in Yogyakarta and Square Enix Smile World (which is a consortium of 3 well-known companies: Square Enix, Gotanda Denshi, & Smile-Lab) in Surabaya. Sina Weibo, a well-known social networking site from China has also started opening a branch office in Indonesia (Eko Nugroho, 2013).

In addition, support from the Indonesian Government can boost the growth of the game industry in Indonesia, considering that there are currently 43 million players in Indonesia. In 2017, the revenue from digital games reached billions of dollars. Indonesia even now has a number of national gaming leagues (wartaekonomi.co.id, 2019). The development of esports in Indonesia has been very fast in recent times. Based on research conducted by Newzoo, Mobile Games revealed that with better telecommunication infrastructure and increasingly competitive mobile games, Asia Pacific now contributes 52 percent of the total world gaming market. Worldwide, Newzoo estimates that Indonesia is the 17th largest gaming market with a total revenue of USD1.084 billion (Roy Rinaldi & Iwan Krisnadi, 2019).

The private sector has also begun to actively work by sponsoring esports teams in Indonesia. Seeing so much interest in esports, thanks to the collaboration of Bekraf, Kemenpora, Kemenkominfo, KSP in collaboration with IESPL (Indonesia Epsorts Premier League), making the 2019 Esports Presidential Cup as a form of support from the Government for the growth of esports in Indonesia (Roy Rinaldi & Iwan Krisnadi, 2019). All support from both the government and the private sector will encourage high and healthy competition in the digital content and application industry in Indonesia.

#### 2. Entry Barriers

The entry barriers for the digital content and application industry in Indonesia can be classified as **low**. This has led to many content creators appearing and enlivening this industry. The high growth in consumption of mobile content, shows the interest of Indonesian people to share content, which provides opportunities for content creators to meet consumer demands, including articles, videos, memes, comic series and series, and so on. With the growing consumption of digital content in Indonesia, there will be more professional content creators who will introduce themselves as We-Media, a term for those who are engaged in the world of independent publishers and individual content providers who can make an impact (dailysocial.id, 2017).

In addition, as explained in the industry rivalry indicators, with the existence of private institutions supported by the government through the IESPL (Indonesia Epsorts Premier League) as an institution that regulates eSports regulations in Indonesia, it has the authority to regulate eSports regulations and competitions. With this institution, the existence and competition of eSports as well as the strength of the eSports industry will continue to survive. The increasing number of eSports competitions will provide young people with choices to be creative and take part in the world of eSports. Opportunities as a pro player and content creator are very open. Along with the development of online games, game developer jobs are a job that is in high demand (Roy Rinaldi & Iwan Krisnadi, 2019).

However, aside from low entry barriers due to high industrial growth and support from the government and the private sector, digital industry business players or content and application creators must pay attention to fairly strict rules and regulations regarding content shared with application users. This is related to efforts to protect the freedom to share content in the digital content and application industry in Indonesia, so the content delivered is also regulated. Content that is prohibited from being uploaded, includes (kominfo.go.id, 2016):

- a. Goods and/or services that contain negative content (pornography, gambling, violence, and content for goods and services that violate laws and regulations)
- b. Goods and/or services that do not have a license to be traded in accordance with statutory provisions

# 3. Buyer Power

The condition of the buyer power of the digital content and application industry in Indonesia can be classified as **low**. In 2017, Indonesia experienced an increase in digital content consumption due to increased use of social networks. The increase in cellular networks will continue to drive digital content consumption. The increasing number of users of cellular and multimedia telecommunication equipment is expected to be an opportunity for the development of the content industry in Indonesia. This is supported by the character of the content industry which is open to providing opportunities for developers, especially the millennial generation, to be more active (Andi Hamzah Fansury, et al, 2020). Report from social blade In 2017 showed that the most widely accessed YouTube content was game content with 260 million viewers (Roy Rinaldi & Iwan Krisnadi, 2019).

In Indonesia, the existence of eSports was initially only felt by players from eSporst and also eSports fans themselves. The beginning of the development of eSports in Indonesia started from small tournaments in internet cafes with prizes of millions of rupiah to, currently, tournaments that have a total prize pool of up to billions of rupiah, from local ones to tournaments that have a national scale, from those with only a few Until now, the eSports team, Indonesia itself already has several big eSports teams such as Boom ID, Evos, RRQ, Nxl, and many other teams that already have achievements in Indonesia on an international scale. In 2018 Indonesia ranks 17th with 82 million gamers who spend 1,130 million dollars playing games. This number has increased by about 10% every year and has the potential to grow. Moreover, in terms of data consumption from the online mobile gaming segment, it also increases data usage by 20% to 30% higher than normal users. With the increasingly diverse eSports competition, there will be more digital content consumers who call themselves prosumers, consumers who are also involved in content production, which will contribute to the increase in digital content creators in Indonesia (dailysocial.id, 2017).

Apart from digital content in the games sector, the digital content industry and applications in the animation sector also continue to innovate in improving the quality of their products or services. For example, a good and attractive animated product will strengthen the relationship between customers and employees. Greater customer trust and loyalty creates increased profits, which makes the company more attractive to new investors and expands the market further. to satisfy customer needs. Increasing the added value of services / products increases the value of service output and keeps customer satisfaction and loyalty high (Hsin-Hann Tsai, Hong-Yuh Lee, & Hsiao-Cheng Yu, 2008). This condition shows that high purchase interest from users but The options available for the types of games and animation are still very limited, thus making buyers a low power position in the digital content industry and applications in the game and animation category in Indonesia.

# 4. Substitute Products

The conditions for substitute products for the digital content industry and applications in Indonesia can be classified as **low**. As has also been explained in the buyer power indicator, the options available for games and animation are still in the digital content and application industry in Indonesia. Coupled with the development of high-speed internet infrastructure that the government still has to do (Andi Hamzah Fansury, et al, 2020), making substitute products in the digital content industry and applications for the game and animation category in Indonesia is still very limited.

#### 5. Supplier Power

The condition of the power supplier for the digital content and application industry in Indonesia can be classified as high. Currently eSports is one of the wetlands in the digital industry. There are many competitions or tournaments both on a national and international scale that invite enthusiasm from game lovers and get a positive response from sponsors. In the Asian Games in 2018, eSports has become part of Asian sports events and has officially become one of the sports that are competed. Of course, this can be an opportunity for cellular operators to spread their wings amidst the saturation of the cellular business. Games have a significant influence on the consumption of internet usage, because online games require a stable connection and high traffic. Therefore, operators play an important role here in providing reliable connectivity to support the development of eSports. However, the uneven network infrastructure is an obstacle in the middle of the development of the eSports industry in Indonesia. The survey results show that there are still many gamers who experience problems with connectivity instability. For this reason, operators must compete to create a comfortable environment in playing games to support the existence of eSports. The involvement of sponsors in competitions certainly makes eSports will continue to survive in the digital industry (Roy Rinaldi & Iwan Krisnadi, 2019).

Several operators, such as Telkomsel and XL, have started to provide game-specific digital services, which provide game-specific data packages. Telkomsel penetrates the digital content business through the world of games, as well as special game data packages but also offers in-game bonuses. Currently Telkomsel has around 180 million subscribers with 62 million of them actively playing both casual and hard games. PT Hutchison 3 Indonesia has also started serving the gaming segment. With a market segmentation that focuses on young people, operator 3 sees the potential for growth in this segment. Meanwhile, PT XL Axiata through the Axis brand also released the Axis Owsem package for online game lovers. With unlimited quota that can be used to play Mobile Legends, AoV, Free Fire, Vain Glory, Asphlat 9, Modern Combat 5 and Hago without limits. Currently, Telkomsel still dominates the use of games, while other operators are still under 20%. This of course can be a concern for other operators to improve services, especially in terms of connectivity (Roy Rinaldi & Iwan Krisnadi, 2019). This condition shows that the number of suppliers in the digital content and application industry in Indonesia is still limited, so it has a high supply power.

The analysis result on the mapping of the digital industry in Indonesia can be formulated as follows:

Table.1 Mapping of Digital mutiting Competitive Auvantages in mutilesia					
Digital Industry Category	The Market-Based View (MBV)				
	Market-Driven, Five Forces (Porter, 1980; 1985; 2008)				
	Industry	Entry	Buyer	Substitute	Supplier
	Rivalry	Barriers	Power	Products	Power
Digial Platform (e-Commerce)	High	Low	High	High	Low
Digital Content & Application	High	Low	Low	Low	High
(Game and Animation)					

Table.1 Mapping of Digital Industry Competitive Advantages in Indonesia

Source: research data analysis (2020)

From the mapping of the two digital industry categories, it can be seen that the digital industry which has a more dominant competitive advantage is the digital content and applications industry (Game and Animation). This is because the digital content and applications industry (Game and Animation) has a better chance than the digital platform (e-Commerce) to continue to grow and be able to penetrate the international market. This industry has low bargaining power for buyers and substitute products, so it has a stronger competitive advantage than the digital platform (e-Commerce) industry which has only one advantage, namely low supplier power.

The main strength of the Indonesian digital industry ecosystem is the young generation who continue to innovate and be creative, especially in the digital content and applications industry (Game and Animation), where Indonesia has a greater opportunity to compete with the global content industry. The digital content and applications industry market has a larger share than the revenue from e-commerce transactions or ecosystem enablers (online payment / mobile payment mechanisms). The driving factor for the digital content and applications industry market is the growth of local entrepreneurs in the content industry and the number of application developers who see Indonesia as the basis for global content development (Vidyantina Heppy Anandhita, 2015).

#### 5. CONCLUSION

To conclude, the strength of Indonesia's digital industry competitiveness is in the digital content and applications industry (Game and Animation). The digital content and applications industry (Game and Animation) has a better chance than the digital platform (e-Commerce) to continue to grow and be able to penetrate the international market. This industry has low bargaining power for buyers and substitute products, so it has a stronger competitive advantage than the digital platform (e-Commerce) industry which has only one advantage, namely low supplier power. The direction of government policies that are pro digital industry will have a positive impact on economic growth and increase the competitiveness of the industry.

#### 6. RECOMMENDATION

The recommendation that can be given from this research are that the government and the private sector need to immediately develop telematics infrastructure for easy internet access that is faster with adequate capacity. Furthermore, the government also needs to develop Human Resources (HR) to obtain creative, innovative and entrepreneurial Indonesian human resources. Finally, the government needs to develop the domestic market for local products and developers to be able to support the growth and development of a more competitive Indonesian digital industry.

## REFERENCES

- [1] Ahmad Kamil. (2015), "Industri Kreatif Indonesia: Pendekatan Analisis Kinerja Industri", *Media Trend*, Vol. 10 No.2 Oktober 2015, hal. 165-182.
- [2] Alderson, Wroe. (1965), "Dynamic Marketing Behavior: A Functionalist Theory of Marketing", Homewood, IL: *Richard D. Irwin, Inc.*
- [3] Albach, H., Meffert, H., Pinkwart, A., & Reichwald, R. (2015)," Management of Permanent Change", doi:10.1007/978-3-658-05014-6.
- [4] Andi Hamzah Fansury, Restu Januarty, Ali Wira Rahman & Syawal. (2020)," Digital Content For Millenial Generations: Teaching The English Foreign Language Learner On Covid-19 Pandemic, *Journal Of Southwest Jiaotong* University, Vol. 55 No. 3 June 2020
- [5] Asmara Indahingwati, Ansir Launtu, Hasmin Tamsah, Ahmad Firman, Aditya Halim Perdana Kusuma Putra, & Aan Aswari. (2019), "How Digital Technology Driven Millennial Consumer Behaviour in Indonesia", *Journal of Distribution Science*, 17-8 (2019) 25-34.
- [6] Barney, J. B. (1986), "Strategic FactorMarkets: Expectations, Luck and Business Strategy", *Management Science*, 32 (10): 231–41.
- [7] Betari Britania & Achmad Herlanto Anggono. (2014)," Analyzing the Factors Affecting Business Performance of Startup Companies in Digital Creative Industry in Indonesia", *Proceedings Book of ICBSSS*, 2014, Malaysia Handbook on Business Strategy and Social Sciences.
- [8] Chiu, Vicki C. H & Lin, Trisha T. C. (2012), "National competitive advantage and cultural proximity: Comparison study of digital content industries in China and Taiwan", *Journal of Media and Communication Studies*, 4(1). doi:10.5897/jmcs11.027.
- [9] Davies R. (2015), "Industry 4.0. Digitalisation for productivity and growth", *Briefing for the European Parliament* (PE 568.337), September 2015. European Parliamentary Research Service.
- [10] Decky Hendarsyah. (2020), "Pemasaran Digital Dalam Kewirausahaan, IQTISHADUNA: Jurnal Ilmiah Ekonomi Kita, Vol 9 No 1 (2020).
- [11] Doris Gomezelj Omerzel & Rune Ellemose Gulev. (2011)," Knowledge Resources and Competitive Advantage", *Managing Global Transitions*, 9 (4): 335–354.
- [12] Drake, G. (2005), "This place gives me space: Place and creativity in the creative industries", *Geoforum*, 34, 511–524.
- [13] Eko Nugroho. (2013),"Strategi Pengembangan Industri Game, Konten, dan Aplikasi Digital Indonesia", Oktober 2013.
- [14] Fahri Karakas, (2009), "Welcome to World 2.0: the new digital ecosystem", *Journal* of Business Strategy, Vol. 30 Iss 4 pp. 23 30.
- [15] Forst & Sullivan. (2018), "Digital Market Overview: Indonesia. (2018), A Frost & Sullivan White Paper, May 25, 2018.
- [16] Hamel, G& Prahalad. (1994), "Competing for the Future", Harvard University Press, Boston.
- [17] Hendra Suwardana. (2018), "Revolusi Industri 4.0 Berbasis Revolusi Mental", JATI UNIK, 2018, Vol.1, No.2, Hal 109-118.
- [18] Hoedi Prasetyo & Wahyudi Sutopo. (2018)," Industri 4.0: Telaah Klasifikasi Aspek Dan Arah Perkembangan Riset", *Jurnal Teknik Industri*, Vol. 13, No. 1, Januari 2018.

- [19] Hofmann, et al. (2019), "Supply chain management and Industry 4.0: conducting research in the digital age", *International Journal of Physical Distribution & Logistics Management*, Vol. 49 No. 10, 2019 pp. 945-955.
- [20] Hoffmann, NP. (2000), "An Examination of the "Sustainable Competitive Advantage" Concept: Past, Present, and Future", *Academy of Marketing Science Review*, volume 2000 no. 4.
- [21] Hsin-Hann Tsai, Hong-Yuh Lee, & Hsiao-Cheng Yu. (2008),"Developing the Digital Content Industry in Taiwan", *Review of Policy Research*, Volume 25, Number 2 (2008).
- [22] Kagermann H. (2015), "Change Through Digitization; Value Creation in the Age of Industry 4.0", In: Albach H, Meffert H, Pinkwart A, Reichwald R (eds), *Management of Permanent Change*, Springer Fachmedien, Wiesbaden, pp 23–45.
- [23] Kim, H., & Song, J. (2010), "The quality of word-of-mouth in the online shopping mall", *Journal of Research in Interactive Marketing*, 4(4), 376-390.
- [24] Maia, C., Lunardi, G., Longaray, A., & Munhoz, P. (2018), "Factors and characteristics that influence consumers' participation in social commerce", *Revista de Gestão, REGE*, 31(4).
- [25] McGee, J. (2015), "Market-Based View", Wiley Encyclopedia of Management, 1– 1. doi:10.1002/9781118785317.weom120075.
- [26] Mehri, A., & Khodadad Hosseini, S. H. (2005), "Design a competitive advantage model for the automotive industry", *Journal of Humanities*, 9(2), 189–212.
- [27] M. Gordon Hunter (2015), "Competitive Advantage", *IGI Global*. http://doi:10.4018/978-1-4666-8708-0.ch008.
- [28] Mohd Suki, N., Ramayah, T., Mohd Suki, N., Mohd Suki, N., Mohd Suki, N., & Mohd Suki, N. (2008), "Internet shopping acceptance: Examining the influence of intrinsic versus extrinsic motivations", *Direct Marketing: An International Journal*, 2(2), 97-110.
- [29] Mochammad Fahlevi, Mohamad Saparudin, Sari Maemunah, Dasih Irma & Muhamad Ekhsan. (2019)," Cybercrime Business Digital in Indonesia", E3S Web of Conferences 125 21001, *ICENIS*, 2019.
- [30] Mu, E., & Pereyra-Rojas, M. (2017), "Practical Decision Making", Springer Briefs in Operations Research, 10(5), 48-60.
- [31] Park, Hyungjin., Yoon, Hyenyoung., & Hwang, Junseok. (2016)," Prospect of the Next-generation digital content industry: Three perspective approach to the User acceptance of the Realistic content technology", *ICACT*, 2016.
- [32] Penrose, E. T. (1959), "The Theory of the Growth of the Firm", New York: *John Willey and Sons*.
- [33] Porter, Michael E. (1980),"Competitive strategy: techniques for analyzing industries and competitors: with a new introduction", New York: Free Press.
- [34] Porter, Michael E. (1985), "Competitive Advantage: Creating and Sustaining Superior Performance", Free Press, New York.
- [35] Porter, Michael E. (2008), "The Five Competitive Forces That Shape Strategy", *Harvard Business Review*, January 2008.
- [36] Rezaei, S., Amin, M., & Abolghasemi, M. (2014), "User satisfaction with mobile websites: the impact of perceived usefulness (PU), perceived ease of use (PEOU) and trust", *Nankai Business Review International*, 5(3), 258–274.

- [37] Rojko, A. (2017), "Industry 4.0 Concept: Background and Overview", *International Journal of Interactive Mobile Technologies (iJIM)*, 11(5), 77. doi:10.3991/ijim.v11i5.7072.
- [38] Roy Rinaldi & Iwan Krisnadi. (2019),"Analisa Dampak Perkembangan Esports Terhadap Persaingan Operator Seluler Di Indonesia", Universitas Mercubuana, Manajemen ICT.
- [39] Rumelt, R. P. (1984), "Towards a Strategic Theory of the Firm", In Competitive strategic Management, edited by R. B. Lamb: 556–70. Englewood Cliffs, nj: *Prentice Hall*.
- [40] Seyed Reza Jafarian & Mehdi Zeynali. (2016), "Investigating the impact of competitive strategy, knowledge management and the acceptance of electronic commerce on financial performance (Case Study: Bank Shahr in East Azerbaijan Province)", *International Journal of Organizational Leadership*, 5(2016).
- [41] Simatupang, T. M., & Widjaja, F. B. (2012)," Benchmarking of Innovation Capability in the Digital Industry", *Procedia, Social and Behavioral Sciences*, 65, 948–954. doi:10.1016/j.sbspro.2012.11.225
- [42] Steininger, Dennis M, Huntgeburth, Jan C, & Veit, Daniel J. (2011), "Conceptualizing Business Models for Competitive Advantage Research by Integrating the Resource and Market-Based Views", AMCIS, 2011 Proceedings - All Submissions. Paper 286.
- [43] Teece, DJ, Pisano, G& Shuen, A. (1997), "Dynamic capabilities and strategic management", *Strategic Management Journal*, vol. 18, no.7, pp. 509-533.
- [44] Vidyantina Heppy Anandhita. (2015)," Analisis Ekosistem TIK Indonesia Unutk Mendorong Perkembangan Industri Lokal dan Ekonomi Kreatif, Jurnal Penelitian Pos dan Informatika, JPPI, Vol 5 No 1 (2015) 49 – 64.
- [45] Vogel-Heuser, B. & Hess, D. (2016), "Industry 4.0 prerequisites and visions", IEEE *Transactions on Automation Science and Engineering*, Vol. 13 No. 2, pp. 411-413.
- [46] Wang, Hui-Ling. (2014), "Theories for competitive advantage", *Faculty of Business Papers* (Archive). 408.
- [47] Wernerfelt, B. (1984), "A Resource Based View of the Firm", *Strategic Management Journal*, 5 (3): 171–80.
- [48] Yeh, C.-C., & Xing, M.-H. (2016), "Key factors influencing digital content industry in Taiwan from the triple helix perspective", *Technology Analysis & Strategic Management*, 28(6), 691–702.

## **WEBSITE SOURCES:**

- [1] Alpha JWC Ventures. (2019), "Pertumbuhan Ekonomi Digital Indonesia Menjadi yang Paling Pesat di ASEAN", Retrieve From https://www.alphajwc.com/en/pertumbuhan-ekonomi-digital-indonesia-menjadiyang-paling-pesat-di-asean/, Dec 06, 2019.
- [2] Indonesia Investment Coordinating Board. (2020), "Indonesia Garap Industri Digital Untuk Investasi", Retrieve From https://www.bkpm.go.id/id/artikel-investasi/detail/indonesia-garap-industri-digital-untuk-investasi.
- [3] dailysocial.id. (2017), "Pertumbuhan Konsumsi Konten Digital: Peluang bagi Kreator Konten di Indonesia, Retrieve From

https://dailysocial.id/wire/pertumbuhan-konsumsi-konten-digital-peluang-bagikreator-konten-di-indonesia, January 10, 2017.

- [4] dailysocial.id. (2018), "Indonesia menjadi pangsa pasar digital terbesar di wilayah regional", Retrieve From https://dailysocial.id/post/persaingan-bisnis-digital-2018, Randi Eka, Nov 30, 2018.
- [5] entrepreneur.bisnis.com. (2020), "Ekonomi Digital Picu Pertumbuhan Fintech, Ecommerce dan UKM", Retrieve From https://entrepreneur.bisnis.com/read/20200206/52/1198248/ekonomi-digital-picu pertumbuhan-fintech-ecommerce-dan ukm?utm\_source=Desktop&utm\_medium=Artikel&utm\_campaign=BacaJuga\_2, Mia Chitra Dinisari, Feb 06, 2020.
- [6] globalwebindex.(2020), "Social media marketing trends in 2020", Retrieve From https://www.globalwebindex.com/reports/social.
- [7] kemlu.go.id. (2020), "Indonesia Kembangkan Potensi Industri Kreatif dan Ekonomi Digital Melalui Forum Kerja Sama APEC", Retrieve From <u>https://kemlu.go.id/portal/id/read/1418/berita/indonesia-kembangkan-potensi-industri-kreatif-dan-ekonomi-digital-melalui-forum-kerja-sama-apec</u>, June 27, 2020.
- [8] kominfo.go.id. (2015a), "Indonesia Akan Jadi Pemain Ekonomi Digital Terbesar di Asia Tenggara", Retrieve From <u>https://kominfo.go.id/index.php/content/detail/6441/Indonesia+Akan+Jadi+Pemain</u> +Ekonomi+Digital+Terbesar+di+Asia+Tenggara/0/berita satker, Nov 22, 2015.
- [9] kominfo.go.id. (2015b), "Industri Konten Dalam Negeri Potensial Untuk Dikembangkan", Retrieve From <u>https://kominfo.go.id/index.php/content/detail/5473/Industri+Konten+Dalam+Nege</u> ri+Potensial+Untuk+Dikembangkan/0/sorotan\_media, August 13, 2015,
- [10] kominfo.go.id. (2016), "Siaran Pers No. 98/HM/KOMINFO/12/2016, Tentang Surat Edaran Batasan Dan Tanggung Jawab Penyedia Platform Dan Merchant Electronic Commerce (Safeharbour)", Retrieve From https://kominfo.go.id/content/detail/8625/siaran-pers-no 98hmkominfo122016tentang-surat-edaran-batasan-dan-tanggung-jawab-penyedia-platform-danmerchant-electronic-commerce-safeharbour/ Dec, 2016.
- [11] opensignal.com. (2020), "Kesenjangan digital yang nyata di Indonesia", Retrieve From https://www.opensignal.com/.
- [12] Sprovieri, J. (2019), "Industry 4.0 is well underway", available at: <u>www.assemblymag.com/articles/</u> 94970-industry-40-is-well-underway (accessed March 12, 2020).
- [13] wartaekonomi.co.id. (2018), "Inilah 62 Perusahaan Peraih Indonesia Digital Innovation Award 2018", Retrieve From <u>https://www.wartaekonomi.co.id/read182224/inilah-62-perusahaan-peraih-indonesia-digital-innovation-award-2018</u>, May 25, 2018.
- [14] wartaekonomi.co.id. (2019), "Menkominfo: Pemerintah Percepat Pertumbuhan Industri Digital di Indonesia", Retrieve From <u>https://www.wartaekonomi.co.id/read213270/menkominfo-pemerintah-percepat-pertumbuhan-industri-digital-di-indonesia</u>, Jan 28, 2019.