The Rise of the East Asian Gaming Industry: A Value-Added Chain Among the East Asian Game Companies During 2000–2010

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Abstract
From a historical perspective, this paper examines how these Asian game companies developed during the period 2000–2010. This research attempts to discern the relationships among the East Asian game companies when they become both game buyers and providers. Based on the model of the global value chain, suggested by Gereffi and others (2005), the results show that, first, the popularity of online games in the intra-Asian market is based on a collaborative relationship, while Korean and Chinese produced games are successfully operated in other markets. Second, the online game business became segmented in East Asia when game companies, in different markets, with their own advantages, were able to play different roles in order to add value to the modular form of the global value chain. Third, the value chains are not evolving along a single trajectory, if economic interdependence among game suppliers and buyers are further examined.

Keywords:
global value chain, Asian gaming industry, Asian MMOG, online PC game, game supplier and game buyer, online game operation

Introduction
Digital gaming, now, has become a popular entertainment form in the global market, especially in the Eastern Asian market, which has presented their own play rules and culture tastes (Chung, 2015; Jin & Schneider, 2016). As the Eastern Asian game market have been integrated into a regional
market, it requires to bring a regional concepts in game studies which has been developed in non-Western epistemologies and social formations (Liboriussen & Martin, 2016), while the research area has been defined as being a Western-oriented subject for a long time. By the end of 2020, there would be a total of 2.7 billion players across the globe, an increase of more than 135 million over those figures recorded in the previous year. The Asia-Pacific region, with 1.4 billion gamers, will account for more than half (54%) of all players worldwide (Newzoo, 2020). Due to the high speed of growth in the mobile gaming area, in 2018, the Asia-Pacific region accounted for 62% of all app game revenues worldwide, attaining $63.2 billion in total. It is worth noting that the role of these game companies, in China, Japan, and South Korea, is that they are the main force that drives the growth of the Asia-Pacific market (Newzoo, 2019). It is worth noting that there exists a three-stage gaming paradigm shift in the global gaming market, which is driven by Japan, South Korea, and today’s China (Hjorth, 2008): Japan first played a dominant position in global game market, indicating the hybrid of game industry based on the network of Japanese, American, and European holding companies since 1980 (Consalvo, 2006; Prisco, 2017), followed by the expansion of Korean game industry in the regional market since 2000 (Jin, 2010), and, then, Chinese game companies started to export their products from the same path of domestic-other Asian market as South Korea since 2010 (CNG, 2017; iResearch, 2019).

This paper focuses on how the East Asian game industry has developed and prospered, particularly in the commodified processes of PC (personal computer) online games in the regional market during the 2000s. At that time, the popularity of online PC games first raised from the Asian market, different from the Western market in which console games was the biggest market segment. Console games boomed in the US in the early 2000s, and became one of the leading forms of entertainment in 2008, and, whereas the industry was worth around US$22 billion in the USA in 2008, and $30 to $40 billion globally, in 2006, the top three markets were North America, Europe, and Japan (Fandom, 2017; Ni, 2007). The successful business model of console games has established the relationship of game console makers and game publishers, a locked-in relationship, and Nintendo, Sony, and Microsoft, the big three companies have controlled the market for a long time (Kline et al., 2003). However, in the East Asian market, the wide acceptance of digital entertainment started form online-PC games. Online gaming (OLG) generally falls into two primary categories: MMORPGs (massively multiplayer online role-playing games) and casual games. The genre of MMORPGs can, in Asia, be categorized into several types, including adventure, simulation, and strategy games. A casual game is a generic term for games played competitively online, but without the existence of a persistent online realm. Online-PC games were first popular in South Korea and then spread to other Asian countries, such as China and Taiwan. At that time, South Korea aggressively exported their digital cultural products to other Asian markets, because its domestic market is very competitive and it is hard to gain enough profits to support production costs (Kang, 2008).

It is worth to note that some Asian MMOGs which is produced in one country is successfully operated in other markets, for instance, the popularity of Korean games in Mainland China and Taiwan (Chen, 2014; Yoon and Cheon, 2013). At the same time, this leads to a new business model for the online gaming industry, which is established in the Asian market, since the process commodified game has become segmented into its developers, publishers, distributors, and operators (Figure 1), in contrast to the traditional model, in which the developer both developed and operated the game (Figure 2). An important shift in the role of the corporate MMOG (massively multiplayer online game) developer is worth noting, this is a shift from a production and distribution model to a service model (Chen, 2009). The role of game operators has become important, due to the fact that the profitability of an MMOG can largely be attributed to a flexible localized operation,
besides sophisticated content design, advanced technological support, and a good marketing strategy (Stern 2002; Chen 2009).

When traced back to 2002, the online PC-based game market in the East Asian market attained an income of US$ 533 million, and South Korea and Taiwan were the top two largest markets, accounting for an 80% market share (Citimes, 2003). China has since developed into an important market with a high-speed growth rate, in the period from 2004 to 2008, and attains income of $22.9 billion (RMB) in 2008, due to its large market scale, as it had 300 million internet users at that time. China has also become a country which has an export game market, mainly to other Asian markets with annual growth, and this market has risen from an income of US$70 million in 2008, to US$230 million in 2010 (CNG, 2017, iResearch, 2008; Essence, 2017). In 2008, the worldwide online PC-based game market was worth as much as $10.7 billion. This amount includes retail sales, online revenue, digital distribution, and relevant ad sales (Fandom, 2017). Since 2009, the development of the online PC gaming industry in China has become mature, as its growth rate has declined year by year (iResearch, 2008; 2013). At the same time, mobile games, substituting OLGs, has become the most lucrative category for these Asian game companies since the first iPhone launched in 2007, which reveals game paradigm has been moved from PC games to mobile games (Newzoo, 2019; Zackariasson and Wilson, 2010).

This paper therefore examines how the East-Asian gaming industry has been developed, and the relationships between these game companies in Mainland China and Taiwan, Japan, and South Korea, whether as competitors or cooperators, during the 2000–2010 period when the flow of game products was circulating in the regional market. Based on the perspective of political economy, the research is conducted in order to understand the process of commodified game product in the East-Asian market, including production, publishing and distribution. A model of the global value chain that was put forward by Gereffi and other researchers (2005) is used, in order to analyze how these East Asian game companies successfully expanded their business scopes, when digital games has become important exports and imports for these countries under the path of economic globalization (note 1).
The intensified globalization is due to the development of global trade accompanied by the flows of Western capitals and the adoption of Western-based technologies. It can be explained as being those trans-border economic activities which are moved and mobilized, and which depend on lower-cost or value-added activities, as the capital has been invested globally by the Western-based enterprises, the US’s in particular (Hoogvelt, 1997; Robinson 2004; Ulrich, 2000). Since the late 20th century, particularly, due to the emerging neo-liberal mode (Larner, 2000), used to refer to market-oriented reform policies, including favoring policies that promote free-market capitalism, deregulation, and a reduction in government spending, it has intensified trans-border economic activities and interaction (Hoogvelt, 1997). Also, the post-Fordism mode, the new competition (Best, 1990), was raised to encourage flexibility and niche marketing in the global market, rather than to generalize the norm of mass-production. It means that some countries hold their competition because of their production networks or flexible specification (Block, 1990; Piore & Sabel, 1984; van Dijk, 1995).

Since the late 20th century, information communication technologies (ICTs) have been at the heart of corporate capital. Most importantly, the new economy works through, by, and with the Internet, and with those things that the Internet represents. The features of the new economy, as defined by Castell, are based upon information technology-based knowledge and innovation, new forms of performance that are characterized by information technology-based networking, and networking capability (1997). Also, new technology has restructured global industry and lead to a redistribution of jobs through an integrated international production line (Conley, 2000; Gereffi et al., 2005; Gereffi & Korzeniewicz, 1994) According to Sturgeon (2002), the model of a modular production network has been raised, based on a strategy that was adjusted by the large American corporations to overcome the market’s challenges. For instance, during the 1970s and 1980s, the USA's electronics industry focused on product creation and market penetration, while manufacturing capacities were shifted to globally operating turn-key supplier. The role of turn-key
suppliers means that they possess deep capabilities and an independent stance, which allows them to provide a full-range of services.

Furthermore, global production networks shape not only subdivisions of the manufacturing process but also the relationships between buyers and sellers. Gereffi (1994) notes that the relationships between suppliers and buyers are dynamic when the products are provided under the following conditions: the complexity of transactions, the ability to codify transactions between businesses, and capability in the supply-base. Based on this concept, market linkages do not have to be completely transitory. The essential point is that the costs of switching to new partners are low for both parties. The model of the value chain between the buyer and the supplier can be varied by modular, relational, and captive value chains and hierarchy (Gereffi et al., 2005). Figure 3 illustrates the above discussion in graphic forms, showing the five global value chain types arrayed along the spectrum of explicit coordination.

- Modular value chains. Suppliers in modular value chains make products to a customer’s specifications.
- Relational value chains. This typology may include management through reputation or through family and ethnic ties. Furthermore, the role of spatial proximity in supporting relational value chains is important.
- Captive value chains. In these networks, small suppliers are contractually dependent on much larger buyers, thus ensuring a high degree of monitoring and control by dominant firms.
- Hierarchy. This form is characterized by vertical integration. The dominant form of governance is managerial control, flowing from managers to subordinates, or from headquarters to subsidiaries and affiliates.

Figure 3. Five global value Governance types.
Meanwhile, the competition among the global companies has delivering a particular task within value chains, rather than in producing a particular product or service. For instance, in 2013, almost 60% of the trade in goods was in intermediates, that is, goods used as inputs in the production process. An important consequence of the integration of production networks is that imports matter as much as exports when it comes to contributing to job creation and to economic growth (Lamy, 2013). At the same time, countries are becoming increasingly international and economically interdependent due to the development of new technologies, ranging from ICTs to transportation, which support and enhance the growing interdependence of marketing activities and other business operations between corporations (Conley, 2000; Strange, 1992). When the financial resources and natural resources are more efficient and innovatively used, and personal and social connections among people are deeper and more profound, it further results in a series of collaborative models of consumption, production, and marketplace creation (Surugiu and Surugiu, 2015).

Technology Innovation in Video Games Industry and Game Consumption

Video games are divided by platforms: arcade games, console games, personal computer (PC) games, and hand-held games. The development of the gaming industry in the Western market can be seen as being both a technology and capital competition amongst the game companies. When examining the paradigm shift in the game industry, the innovative breakthroughs in technology implementation and industry practice have become some of the decisive forces inside the industry (Gretz, 2010; Zackariasson and Wilson, 2010). For instance, in the home video games market, these companies, for example, Atari, Nintendo, Sony, and Microsoft, compete with each other in different generations by providing innovative game design. Also, home video game market is a standard-based industry because users have to purchase or rent software which is compatible with their own console (Kline et al., 2003; Gallagher and Park, 2002; DID, 2018). Building an installed base and a network of complementary products are therefore critical factors, as the research shows that platform dominance is positively influenced by support from a greater breadth of titles by complementors (Babb et al., 2013; Gil and Warzynski, 2015; Srinivasan and Venkatraman, 2010).

The technological application and the use of PC games in hardware and software has been constantly complemented by the development of computer and internet technology (Allen and Kim, 2006; Gallagher and Park, 2002). For instance, Anglo-American online computer games first evolved into text-based games, like Adventure (originally called ADVENT), which was written by William Crowther in 1975 and 1976, and Zork (by infocom in 1977), and, then, into early graphical adventure games like Wizardry (by Sir-Tech in 1981) (Stern, 2002). These early games were established within a multiplayer real-time virtual world, a multi-user dungeon (MUD), the origin of later MMORPGs (Bartle, 2010). Since 1995, MMORPGS started to appear in the West and in Eastern Asia, for instance, Ultima online (Electronic Arts) in the US in 1997, and Lineage (NC soft) in South Korea in 1998 (Zackariasson & Wilson, 2010). It is worth noting that the breakthroughs in information technology, for instance, the internet being open to commercial traffic, the release of Microsoft’s Windows 95 operating system and the continuing decrease in the price of home personal computers, allowed games for the PC and Mac to gain significant popularity in the late 1990s (Allen and Kim, 2006). During the early part of the 21st century, the technologies of 3D graphics games and massive multiplayer networked communications have been merged in order to make possible today’s 3D MMORPGs, such as Everquest (by Sony in1999) and World of Warcraft (by Blizzard in 2004). Despite originating from MUD, the world-wide popularity of World of Warcraft (WoW) is based on the facts that it offers a wide range of player types access and a more complex game world that has been transformed from the original MUD platform (Mortensen, 2006; Stern, 2002).
Besides that, digital games and other media, such as TV dramas and popular songs, in East Asia are emerging as a regional cultural market from the foundations of expertise that has been gained in local and national markets (Chua, 2004; Lee and Huang, 2002; Zhu, 2008). In South Korea, the development of game industry has been benefitted by the governmental support and the pour-in of foreign capitals (Jin and Chee, 2008). Korean digital culture is shaped by the powerful technosocial forces, reflected on internet usage, online communication, and game consumption, such as the popularity of PC bang (internet café) and the rising of esports (Huhh, 2008; Doh and Whang, 2014). China’s game industry has developed with rapid growth since 2004 (Cao & Downing, 2008), and the huge game market is characterized by a great number of players who are in different social and economic backgrounds, presented in game-playing, game-laboring, and on-line social behavior, such as gold farmer and in-game marriage (Chan, 2006; Liu, 2017; Wu et al., 2007). When further examining the forces behind the formation of the gaming industry in China, we cannot ignore the role of government power alongside the cultural and economic forces. From the standpoint of government, a “push and control” internet policy suggests that the leadership has relaxed its ideological claims (for economic promises), yet it still wants to control online content (Zhang, 2007). By following a State-driven model, online games in China have indeed become a means through which to market Chinese culture, which is based on a state-concept: game industry nationalism (Fung, 2016).

**A Modular Model of Value Chain in the east Asian OLG Market**

From the prospective of media industry study, the creation of a digital game can be divided into three distinct stages: development, publishing, and distribution. However, the practice the games industry presents a complicated process because development, publishing, and distribution functions can be combined or separated, different from the music and film industries, where those functions are typically integrated into one production label (Dyer-Witheford & Sharman, 2005; Kerr, 2006; Jin and Chee, 2008). Since 2000, the online PC games industry in East Asia has been segmented into game producers and game operators, while the game products are produced in one country and operated in other local markets. This is due to these Asian game companies having their own advantages in game production and/or game operation, and then they have further established a collative relationship, because online PC games can be supplied based on the model of a modular value chain (figure 4).

With the advanced technology on producing and operating MMORPGs, South Korean game developers have the capabilities to supply flexible services while exporting their digital cultural

![Figure 4. Modular value chains.](image-url)
products to other markets. In 1999, the Korean OLG alone was earning $86.3 billion (Won), and this income grew to US$ 2.4 million in 2008. South Korea also became one of the largest game exporting countries, 50 of its games operated in 80 countries, with 31.9% of the worlds’ market share, and Japan and China were the main export markets, accounting for market shares of 34.6% and 23.6% in 2007 (Kang, 2008). For instance, the popularity of Lineage, which overwhelmed the Asian market, appealing to a mass of core users, and became one of the most popular fantasy MMORPGs in the world. Until 2015, Lineage was still one of the top 10 grossing pay-to-play MMO games, its revenue reaching US$330 million, following the top number five game, WoW (Effendi, 2016). Differently from South Korea, the Chinese online gaming (OLG) industry was started, by operators such as Shanda and The9, in order to import Korean games. Since 2004, Chinese game companies have started to develop their game products with governmental support, for instance, the Westward Journey series, in 2003, and Zhengtu Online, in 2006. These games were the two first self-produced games to have attracted a million subscribers (Chew, 2016; Xinhuanet, 2005; Xinhuanet, 2011). Since 2005, Chinese-produced game products have also been exported to tens of overseas markets, and, until 2009, the South Asian market was the main export market for Chinese produced games (CNG, 2015). Meanwhile, the video game industry in China is on the verge of becoming one of its most valuable cultural exports, with its revenues attaining US$ 15 billion in 2020 (CCTV, 2020; Minter, 2016; ).

Compared to those of other Asian competitors at that time, the quality of Japanese oriented MMOGs was lower in terms of their 3D game production and internet server technology, although Japan has a competitive capability in the video game industry. In the online PC games’ sector, Japan relied on imported games from other Asian companies. In 2004, 503 MMOGs operated in Japan, including 102 from South Korea and 14 from China, according to JOGA (the Japan Online Game Association) (RU, 2008). A similar situation can be found in Taiwan’s market. Since the Taiwanese game companies could not solve the technological barriers to producing 3D game products, they started to acquire imported game products in order to solve the problems raised by market demands, although Taiwan developed many popular PC games in the 1990s. According to the International Data Corporation (IDC), Korean, Japanese, and Chinese produced online games took up 75% of the market share in Taiwan in 2006 (note 2).

**Korean Game Provider and Taiwanese Game Operator**

The South Korean game companies sensed the market value of online games was overseas, and started to develop their game industry with government support. At the same time, the South Korean gaming market is limited and competitive, very few games can recoup their costs if solely operated in the domestic market, that is, fewer than 5 games made profits in 2007, since more than 80 games were launched at the same time (Kang, 2008). The South Korean game companies thus aggressively explored overseas markets in order to increase their revenues through licensing their game products, or by setting up branch offices (Chen, 2009).

Diversified forms of content, such as Maple Story and Crazy Racing Kart Rider (Kart Rider), were also developed by Korean game companies, which increased the number of MMOG users in the market. Previously, all of the popular MMORPGs, for example, Ultima Online, Lineage, and Everquest, had been set in a fantasy world populated by fictional races and monsters, with players choosing classes in order to gain specific skills or powers. These games solely appealed to hard-core users, who were mostly male and in the age group 15 to 25. At the same time, Maple Story and Kart Rider were widely accepted by other Eastern Asian gamers, due to their localized content and different market strategy. When a South Korean produced game is introduced into another market,
the content is revised in order to meet the demands and tastes of local users, and this revision is based on the local operator’s requests. Those game supplier’s services include the technological support of the Internet system, the manufacturing of virtual items, and the revision of content in accordance with the buyer’s demands, for instance, in the case of Maple Story and Kart Rider, in Taiwan.

Maple Story, which was released in 2003, makes use of 2D capacity scenarios and scrolling story lines. In 2005, Gamania introduced the game to Taiwan, and adopted a different marketing strategy by attracting a younger group, who were those under the age of 12. Eventually, the game successfully attracted new players, because it provides an easier way to play games. Since then, the cute game has been widely accepted in the intra-Asian markets, including South Korea, Japan, Singapore, and Taiwan (Chen, 2014). As of May, 2020, the game had reached over 180 million registered users worldwide (Nexon, 2020). Kart Rider, another cute racing MMOG, which was released in 2004, was a sensational hit in the South Korean market. The game is presented in a simple fashion: the goal of the game is to drive the kart as fast as you can, so as to beat the other players. There are an estimated 15 million users of the Korean version, and over 25% of South Koreans under the age of 15 years have played the game at least once. This was also the first game to outsell WoW in South Korea (Hjorth, 2006). In Taiwan, Kart Rider, introduced in 2006, appealed to 70,000 users, including equal numbers of women and men, with an average age of over 25, the demographic for users of this game is represented by more middle-class players. Surprisingly, Gamania found office workers also joined in with the racing game, and they did this simply for quick entertainment. Kart Rider, as a popular MMOG, appealed to very different groups of users in South Korea and Taiwan, because the content was localized, and a different marketing strategy was adopted by the local game operator. The IDC’s 2007 survey showed that the revenue of the Taiwanese OLG market increased by 40% in 2006, due to the new market segments that were created by Maple Story and Kart Rider (note 3).

Chinese Game Providers and Taiwanese Game Operators

Since 2004, Chinese game companies have become important game providers for Taiwan’s game companies. The Chinese produced MMOGs have advantages in the Taiwanese market, in terms of lower license fees and the cultural proximity between the two territories (Chen, 2009). For instance, Kongsoft’s Jianxia Qingyuan Online (JX Online), a very popular wuxia romance MMORPG in Mainland China (Chew, 2016), was launched in Taiwan in 2004, appealing to at least 40,000 users, and becoming the most successful Chinese game in Taiwan at that time. Besides these factors, Chinese game developers are able to remodel games quickly in order to suit the demands and tastes of local players. Since that time, more MMOGs have become free to play, so as to attract more users to log-in. For the Taiwan operator, these Chinese game developers are good at providing a variety of profit-making models, further helping the game operators to lengthen the life span of a game.

In 2005, Perfect World, a Chinese MMORPG, was launched by Taiwan’s Game Filer. It is worth noting that a feature and fashion system is customized during the game-play, whereby players can create the looks and the costumes they want. The character design is therefore very hard to recognize as being authentically Chinese, no matter which character or costume is chosen. All of them possess a hybrid representation, with a mix of Oriental and Caucasian aesthetic values in their looks and body shapes. Besides this, the custom designs for the characters closely follow Western fashion, such as smoky eyes and trendy evening gowns. In the case of Perfect World, the Taiwanese company spent heavily on marketing, in order to reshape the games. A Taiwanese supermodel, Lin Chi Ling, became the spokesman for the game, and was paid about NT$10 million dollars for the endorsement. This game was thus identified as a “trendy” game in Taiwan (note 4).
Interestingly, *Perfect World* was originally launched unsuccessfully in China in 2004. Taiwan’s Game Filer obtained the license for the game, adapted it into a free game, and made it a major success in Taiwan. In 2006, a new version, *Perfect World International*, which is based on Taiwanese content, was launched, and it has since become one of the most popular games in China. As a result, this Chinese-oriented game has become very successful in the global market, and has been exported to over a hundred countries. It was rated as the most popular MMORPG in Japan, Russia and Brazil. By 2015, they had over 50 million registered players worldwide (*Altay, 2015*).

**The Inter-Dependence Between The Asian Game Companies**

According to Gereffi *et al.* (2005), varied types of value chain can be varied by modular, relational, captive value chains, and a hierarchy that is developed according to the position of suppliers and buyers. However, when the model is generally used to examine the relationships of these Asian companies, it is not able to describe the relationship of inequity and disproportion, as the buyers and the suppliers hold advantages in market scales, sources, or technology. The weight of interdependence between them should therefore be further considered, as one side needs to increase the revenues of game products, and the other needs a quality game product in its game market. Interdependence implies mutual dependence, which is characterized by reciprocal effects among countries, or among actors in different countries, according to Keohane and Nye (1977). Interdependence thus needs to be considered in terms of relative relationships of dependence, between States and corporations, and between different corporations, when analyzing the process of purchase (*Strange, 1992*). When a political economy prospective is used to examine the relationships between Asian game companies, the relationships of the game suppliers and the game buyers are asymmetric, and this is reflected in the cases of South Korean and Chinese game companies, and Japanese and Taiwanese game companies, where one side holds the advantage in terms of the market and/or technology.

**Captive Value Chains Between Korean Game Providers and Chinese Game Operators**

China has been an important market for the South Korean game companies. From 2000 to 2004, the South Korean-produced games gained a dominant position in China. After that time, Chinese game companies began to control the market, because of the policy which limited the importing of foreign games and provided sponsors to aid the development of Chinese game developers. Korean games, nevertheless, still have an appeal to a large number of Chinese users. For instance, in 2002, *Legend of Mir*, developed by Wemade in 2001, accounted for 68% of the market share in China, with 18 million subscribers. In 2004, its Chinese operator, Shanda (Shengqu Games), acquired 50% of the property for *Legend of Mir II*, through buying a controlling 29% stake of Actoz Soft. This transaction solidified an alliance between Shanda and the Korean game content suppliers in China’s market (*Mure, 2004*); the *LoM series* drew Shanda’s main revenues until 2010 (*Aipai, 2011*).

In 2013, China became South Korea’s largest export market, taking in nearly 40% of the country’s total game exports, followed by Japan and Southeast Asia (*Song, 2014*). However, the success of Korean cultural products in the Chinese marketplace does not depend on their original design, but on how they are localized, and this is tied to Chinese local operators, who have control of their distribution, and who understand the users’ tastes. For example, *Cross Fire* (Neowiz) was revised for a year before it operated in China, in 2007, and it has had a total revenue exceeding 10.5 billion won since its launch (*Kim, 2020*). For the Korean game companies, China has become a made-to-measure market in which the game content was compressively re-made to target an
expected profit-making market (Wang, 2012; Zhang, 2014). This may also be reflected in the success of *Dungeon Fighter Online* (DNF), which was operated by Tencent in China in 2011. Before its public operation, the game was evaluated by the Chinese gamers so that it would achieve market satisfaction. The game content has been revised, for instance, in its PK system and dungeon map, as the Chinese gamers prefer to win during combat and to have a certain freshness during gameplay. Also, a unique fashion and equipment system is designed to reinforce the strength and power of the avatar. Actually, South Korea’s *DNF* was claimed to be a popular “national game,” and it had 170,000 users in 2007. Despite this, in China, the localized version immediately attracted over one million users, when it began to be operated in 2008 (note 5). In 2016, Tencent extended a 10-year publishing deal with Neople. Actually, the same situation is not found in other markets: the game was originally available through Nexon in North America and Europe, but after shutting down in 2013 it was relaunched by Neople in 2015 (Mmo culture, 2016). In 2018, this game reaped a revenue of 1.3 trillion won, with a revenue of 1.2 trillion won in China alone (Kim, 2020).

Based on this case, a captive value chain is established which shows a managerial hierarchy with the supply chain (figure 5). With the advantages of a great market and operational skills, the Chinese dominate companies, such as Tencent and Shanda, and have a high degree of monitoring and control on the process of purchase, while small Korean suppliers were contractually dependent on much large Chinese buyers. At the same time, acquisitions and mergers accompanied this process when game buyers have to ensure the supply of game products. In 2019, the exports of South Korea attained US$ 6.6 billion, and China was still the biggest overseas market for South Korea, accounting for 40.6%, although China has restricted sales of South Korean games since 2017 (gamelook, 2020).

![Figure 5. Captive value chains.](image-url)
Relational Value Chains Between Japanese Game Providers and Taiwanese Game Operators

The advantages of Japan’s gaming industry include its more than 20-year history of developing console games, its originality in developing a game, the IP ownership of many game series, and its unique graphic designs. However, its game products lag behind in technology. For instance, on its visuals, the graphics of Japanese games are mostly 2D, while other game companies are constantly improving on, and developing, 3D games (O’Sullivan, 2020). Despite that, its MMOGs carry a perceived sense of status, with their unsurpassed expertise in console game production. This is especially true in relation to the Chinese fans (Liao, 2016). It was reflected in the popularity of Japan’s game *Stone Age*, which was produced by Japan System Supply in 1999. The 2D MMORPG was one of the few games successfully operated in Mainland China and Taiwan in the early 2000s.

Actually, the links between Japanese game providers and Taiwanese game buyers was established along the lines of relational value chains, and of long-term cooperation, due to the rise of the video game industry. The mutual inter-dependence that has arisen is regulated through both social and proximity ties. Both sides had this close cooperation through the production of video games and their technical R&D. The exchange of tacit information and technology transfer existed between the Taiwanese and Japanese though frequent face-to-face interactions. It is reflected in the case of Taiwan’s Softstar, who has a long relationship with the Japanese game industry (note 6). At that time, it imported few Japanese MMOGs, such as *Uncharted Waters* and *Cross Gate*, but they do have a brand awareness, which appeals to groups of players in the Taiwanese market.

*Cross Gate*, a 2D cute role-play game, was developed by Dwango, and published by Square Enix in the Japanese market in June, 2001. Two months later, the game was being operated in Taiwan. This game is also one of the games that has been operated for the longest time in Mainland China and Taiwan, although it was closed down in Japan in 2007 (Wiki, 2021). For the Japanese game producer, *Cross Gate* was originally designed for a small market, allowing only a limited number of
players to log-in. When the game was operated in a larger game space, the original internet techniques and design could not support the heavier volume of telecommunications traffic. So, Square Enix released the source code, and the Taiwanese operator, Softstar, revised the content, including the security of the software and content updates, themselves. Despite this, any revision and new content in this game needs the advance permission of Japan’s Square Enix. Additionally, Square Enix took 30% of the annual revenues of Cross Gate from Taiwan’s Softstar as an annual royalty fee, as a result of the game producer owning the game property and the famous established IP address (note 7).

Based on this case, a relational value chain is established between Japanese and Taiwanese game companies in figure 6, which comes from a long-term cooperative relationship that has existed in video games and the PC game industry, and the support of spatial proximity. Even though the supplier and the buyer were kept on check through contracts. It was appropriate for both sides to maintain their cooperation. It is due to this relationship between the game supplier and the game buyer that they are not just collaborative partners, but competitors as well. The game companies will therefore take on contractual agreements as safeguards, once they hold the advantage of innovation, when the production of online games have become modularized and standardized.

Conclusion

The discussion above has shed some light on how online games industry has been developed since 2000. Although these innovative technologies’ implementation in the development of games was oriented at the Western market, it is these Asian game companies that have expanded their industry practice: increasing the applicability of online games by decreasing the barriers to playing, and increasing the number of market segments by providing different forms of content. Within critical game studies, virtual games in 21st century is regarded as a paradigmatic media of Empire, which is reflected on global capitals, the set of dominant institutions and inequality labor work, according to Dyer-Witheford and de Peuter (2009). From the perspective of political economy, this research specifically focuses on how these Asian companies practiced on the stages of production and operation as the game itself as a commodity in the regional market. Based on the contours of the value chain model, this is further discussed in the following paragraphs:

First, the modular form of the global value chain appears to be playing an increasingly central role in the global economy, as standards, information technology, and the capabilities of suppliers, improve (Gereffi et al., 2005). Besides this, global production networks shape not only the subdivisions of the manufacturing process, but also the relationships between buyers and sellers, which have the advantages of internalizing tacit knowledge and pooling capacity utilization for greater economies of scale. It is due to the suppliers and the buyers that there is added value in the whole industry chain, which is reflected in the case studies. In addition, the value chains are not evolving along a single trajectory, if the interdependence between suppliers and buyers are further examined. The reciprocal effects among countries, or among actors in different markets, influence the transaction process between supplier and buyer, and the continuous interaction through adjusted contracts to maintain their cooperation, since one side controls the market or keeps their technological advantage.

Second, the different models of the global value chain (Gereffi et al., 2005) can be solely used to discern the changes in the Asian Pacific gaming market in the period 2000 to 2010. During that time, a collaborative relationship existed between these Asian areas, and this helped to push the architecture of global value chains, moving such architecture towards the relational, modular, captive, and market types. It is worth noting that there is no single best way to organize the value chains,
because the operations of trans-border economic activities are not static, and they are not always collaborative among these companies, and these will be adjusted when one side holds competitive advantages in gaming industry.

The limitation of this study is that it is not able to provide a comprehensive angle through which to explain the development of the Eastern Asian game industry, during the period 2000–2010, by examining only a few cases. At the same time, actually, the relationships of these Asian game companies are unstructured, and they form a more complex situation, as the ecosystem in the regional market is loose. Besides that, when the value chain module is used to examine the relationship of these Asian game companies, neither culture, political nor social influences on how the Asian OLG industry was developed, are considered. It needs subsequent research and more references to fill in East Asian game research when game consumption and use habits can be varied by regional markets.

(Note 1) Data were collected in China and Taiwan. It is based on a wide range of online game protagonists, more than 70 in number, and including executives, general managers, spokesmen and journalists, government officials, and analysts from Taiwan, China, South Korea, and Japan, were interviewed. Related news and reports on websites during the period of 2000–2020 are also included.

(Note 2) The data are from Research Manager of IDC (International Data Corporation) Jay Yang in Taiwan in 2007.

(Note 3) The data are from 2006 report of Institution of information industry in Taiwan in 2007.

(Note 4) The data are from an interview with General Manager of Softworld International Chun Po Wang in Taiwan in 2008.

(Note 5) The data are from a newspaper Journalist in Mainland China in 2016 through internet.

(Note 6) During that time, Taiwan’s Softstar was a member of Software Technology and Communication (STAC). The organization’s 23 members control the Japanese game industry, accounting for 60% of Japanese game development and production, which is one of the most important organizations of Japanese game firms.

(Note 7) The data are from an interview with Project Leader of Software Chiu Jung Chun in Taiwan in 2007.

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