

DYNAMICS IN THE ONLINE GAME INDUSTRY OF CHINA: A POLITICAL ECONOMIC ANALYSIS OF ITS COMPETITIVENESS

PEICHI CHUNG
JIANGPING YUAN¹

ABSTRACT

The Chinese online game industry is one of the fastest growing interactive entertainment industries in the world. The industry now launches more than 200 game titles to the market annually. Some popular game characters have become cultural icons in China. As the market landscape expands, the industry continues to attract new ventures. The Chinese online game industry is a fast follower of South Korea and the United States. This industry has an expanding gamer base with local media entrepreneurs now producing games that meet local consumer demand. The industry has become a competitor comparable to online game media giants in the global marketplace. This paper uses Michael Porter's competitive advantage model to study industry dynamics in the online game industry in China and engages in the globalization debate by analyzing industry factors contributing to the emergence of local game companies. Analysis of fieldwork interviews shows that China's competitive advantage includes factors such as the country's large market size, growing local demand, improvement of advanced game production skills, aggressive industry rivalry and agglomeration between the game industry and supporting industries. This paper also argues that corporate strategies that emphasize the local adaptation of China's particular media ownership structure and emerging consumer power are other factors that go beyond Porter's model. These factors show the competitiveness in the political and cultural dimensions of the online game industry of China.

Key Words: China, Online Game, Globalization, Diamond, Industry Dynamics

INTRODUCTION

The purpose of this paper is to study the rise of online game industry in China and examine the factors that have contributed to its development. Recent industry reports show that broadband development in China has grown rapidly, with tens of millions of new participants joining the internet world every year (Pew Internet Report, 2007). From 2004 to 2006, the internet population in China grew at double digit rates, rising from 18% in 2004 to 23% in 2006. As of 2007, China had a total of 137 million internet users, with more than 70% them under the age of 30 (So, 2008). The country also established itself as the world's largest mobile market with about 565 million users in 2007 (Research and Markets, 2008). China is

¹ COMMUNICATIONS AND NEW MEDIA PROGRAMME NATIONAL UNIVERSITY OF SINGAPORE CNMCP@NUS.EDU.SG
; JIANGPING.YUAN@HOTMAIL.COM - TEL: 65-65163430

now an emerging market that attracts the flow of foreign capital, achieving revenue of \$22 billion US dollars by 2008 (BBC, 2008).

China's online gaming sector has grown with the development of broadband technology. The country is now the second biggest internet market in the world, after the United States. Due to internet piracy, major global game companies such as Sony, Nintendo and Microsoft have kept away from the Chinese market (The Economist, 2008). The absence of console game players has led to the rise of online games in China. At the present time Ubisoft, Electronic Arts, and Vivendi are the three foreign companies that have entered China. These three companies operate their businesses by either engaging in mergers and acquisitions or joint ventures with local game companies. In 2007, Electronic Arts acquired a 15% share of the local game company, The9, worth USD 167 million (Chinadaily.com.cn, 2007).

Local game companies have been major players in China's online game industry. This development coincides with that of other traditional media industries in China, as these industries are under the influence of the state, with regulations that limit foreign imports and transnational capital (Zhao, 2008).

The online game industry started in 2000 when local companies went into business as distributors and imported Korean games to China (Cao & Downing, 2008). These companies soon became the major industry players where most of the market revenue was made. After eight years of development, China's online game industry is now a stable industry with homegrown companies that encompass all levels of the value chain, including development, publishing, distributing and selling. In 2007, 65% of China's online game market belonged to local software producers.

The current industry structure shows that there are two tiers of local game companies: first tier and second tier. Large-scale Chinese companies such as The9, Shanda and NetEase are the first tier companies, occupying seventy percent of total industry profit (Koo and Waide, 2006). Second tier corporations includes very specialized companies such as NineYou, 17Game, Kingsoft, Tencent and Perfect World. These companies serve as distributors or portal operators, some of them releasing foreign games, while the others produce local MMORPGs (Massive Multiplayer Online Role Playing Game) and casual games. For instance, Tencent is a second tier distributing company that provides instant-messaging services and a MySpace-like social networking site (The Economist, 2008). Perfect World Technology is a developer that produces the popular MMORPG game, *Perfect World*.

The company also produces *Wulin2*, the first online comedy game made for the Chinese market.

This paper will first evaluate the industry structure based upon Porter's model of competitive advantage. Four perspectives will be used to analyze empirical data that was collected from November to December 2007: factor conditions, demand conditions, supporting industries and firm strategies and rivalry. Ren & Yang conducted similar research in 2004 that studied the application of Porter's model to China's game industry. Our study follows the theoretical framework of Ren & Yang's, but goes beyond it, as their work was based upon secondary industry data, while our paper includes fifteen face-to-face interviews with high-ranked corporate managers of Chinese online game firms. We will apply Porter's model to empirical industry information to further study the industry players and the dynamics they contribute to the process of globalization of China's online gaming sector. The paper also studies political and cultural factors that are associated with the fast-transitioning Chinese society and their influence on the online game industry and will engage with the literature in the areas of global information flow, the East Asian online game industry, and media communication in China.

Literature Review and Theoretical Framework

Discussion of the recent emergence of the online game industry in China raises important questions about the roles of the market, state, culture and new communication technology in a country's (new) media industry. The relationship between local game companies, foreign game companies and the state is complicated in the case of China. On the one hand China heavily relies on direct foreign investment for its economic growth; on the other hand, the country also uses restrictive regulations to protect its (new) media industry (Dong & Shi, 2006; Kalathil, 2003; Zhao, 2008).

Media Globalization and the Online Game Industry in China

Such complex networks among different factors reflect the consequences of globalization that evolve from the rise of international media companies. It has been argued that globalization intensifies and connects people in different geographic locations, furthering information exchange (Thussu, 2006). Du Gay (1997) argues that transnational companies are the primary agents of globalization. Gershon (1997) points out that the economic expansion of

transnational media companies forms a media landscape that is based upon fierce competition and continuous economic consolidation among media companies around the world. The result of the expansion of these media companies is that complex networks are formed and social relations are changed (Rantanen, 2005).

Media industry is a cultural industry. It is important to examine the cultural flow from the local media market. Western media giants have actively localized their media content in order to enter local markets. In response to global trade by transnational media companies, several media production centers emerged in the global media market. They receive regional support from their audiences, who share a similar culture (Hesmondhalgh, 2007). For instance, in India the liberalization of television nurtures a market for Rupert Murdoch and his News Corporation enters the Indian market with Zee TV, popularizing a reporting style that is a hybridized news genre based upon Bollywood popular culture and the Hindu language (Thussu, 2007). The appeal to audiences with shared culture is also seen in the case of telenovelas in Latin America. The case of South Korean movies, online games, and television dramas in Asia also indicates that cultural flow originated in these media centers co-exists with media messages produced by traditional media giants (Jin & Chee, 2008; Shim, 2006).

The complicated intersection between western global media and local industry stakeholders also exists in the media industries of China, be it in the field of television, film or the internet (Dover, 2008; Curtin, 2007; Keane, 2006). Curtin (2007) explains that Chinese media players now adopt an open approach to directly intersect and contest with western media. The creative industry in China has quickly adapted, so that Chinese new media products, in particular online games, are now compatible with those produced by transnational media giants. Keane (2006) considers this type of cultural economy a combination of innovation and imitation. The high priority China places on achieving economic goals makes local new media firms concentrate on quickly achieving technology transfer and acquiring R&D skills from international media companies. The innovation lies at the distribution level rather than the conceptual level.

Existing literature regarding China's online games and new media exhibits an emphasis on the perspective of government and industry (Cao & Downing, 2008; Damm, 2007; Ernkvist & Strom, 2008; Golub & Lingley, 2008; Ren & Yang, 2004; Zhang, 2006; Zhao, 2008). Studies that focus on the government concentrate on the issue of censorship and internet regulation (Damm, 2007; Ernkvist & Strom, 2008; Zhang, 2006) and argue that the online game industry is deeply shaped by the political environment. For instance, Ernkvist &

Strom (2008) state that the Chinese government restricts activities of foreign game companies in China and proposes regulation on the local game firms in order to maintain a “healthy” gaming industry. Because it believes online games as an area of moral crisis which may bring down the social order, the government imposes restrictive policies to regulate problems such as internet addiction and internet gambling (Golub & Lingley, 2008).

Studies of the online game industry include preliminary accounts of its structure. Ren and Yang’s research presents a business-based account of the online game industry, highlighting the development of market and infrastructure and the economic performance of the largest local company, Shanda. Cao and Downing (2008) engage in a political economic analysis of the video game industry structure, the development of the MMOG industry and the influence of China’s state policy. Based on the current literature, this study further offers an empirical account of the collective performance of local game companies.

Porter’s Diamond Model and the Four Attributes of Competitiveness

China’s rapid rise in the online game industry complicates existing discussions that use the neo-liberal paradigm to examine the market and democracy and define counter-global flow. What are the industry dynamics and how do these factors explain China’s current development of online gaming industry? Porter’s model offers a systematic framework to examine the intermediate world of the online game industry and explain the industry dynamics formed by local game companies. Unlike traditional theories of international trade that consider comparative advantage as an endowed factor, Porter argues that the competitiveness and wealth of a nation are created, not inherited. Competitive advantage is determined by four attributes: (1) factor conditions, (2) demand conditions, (3) development of related and supporting industries and (4) firm strategy, structure and rivalry:

Firstly, factor conditions refer to “inputs necessary to compete in an industry” (Porter, 1990: 76). In this category, Porter identifies key factors and non-key factors. He states that key factors such as specialized and include skilled labor, capital and infrastructure; while non-key factors are generalized and include unskilled labor and raw material. Specialized factors are created by production and non-key factors can be obtained by any company. Since skilled labor, capital and infrastructure are important, Porter believes that these key factors are more valuable and significant to competitive advantage because they are the hardest to imitate. To

him, non-key factors can be obtained easily and hence do not generate sustained competitive advantage to an industry.

Secondly, under demand conditions, domestic demand is considered as the single most powerful determinant of competitiveness in service industries. Firms that are facing a sophisticated domestic market are more likely to sell superior products because the market demands high quality and places more pressure on firms to innovate. Porter describes market size and growth, the sophistication of local buyers, and the linkage of local buyers to global trends as the three major attributes of demand conditions. That is, as market growth encourages the expansion of firms, the sophistication and demands of local buyers push the firms to provide better products or services. As the discriminating values of local consumers spread to other countries, the more competitive advantage the local industries have in their effort to expand consumer demand in the global marketplace.

Thirdly, Porter thinks that strong supporting and related industries are important to the competitiveness of firms. These include both upstream and downstream industries. For the online game industry, the supporting and related industries not only include downstream industries such as firms that manage the distribution and operation of game titles and broadband service, and upstream industries that include animation and the movie industry (Ren and Yang, 2004). The phenomenon of competitors and upstream and downstream industries locating in the same area is known as industry clustering or agglomeration. An obvious advantage of industry clustering is the potential technology spillover among competitors, but potential disadvantages could be the job-hopping of employees among peer companies.

And lastly, Porter argues that firm strategy, structure and rivalry are the fourth set of attributes which influence the competitiveness of a nation. Porter believes that nations will tend to be more competitive in industries in which the style of management is well-suited to the national environment. According to Porter, the national environment includes attitudes towards authority or management, norms of interpersonal interaction, social norms of individualistic or group behavior, and professional standards. In terms of rivalry, Porter believes that intense competition from vigorous domestic rivalry encourages innovation in product development and marketing, cost efficiency, and quality improvement, as well as efforts to explore new markets domestically and internationally. However, international competition is not as motivating, as there are already enough differences among companies in their home countries.

In general, Porter sees the Diamond as a system because the four determinants are not independent or separated from each other. His model is a comprehensive, systematic and qualitative framework which can be used to analyze the competitive advantages of an industry at the national level. Most studies tend to use the Diamond Model as a valid measurement tool or generally accepted truth to describe and analyze a specific industry. Porter himself uses the model to examine competitive advantage in various industries of economically developed countries, including the UK, US, Germany and Japan, and implications to policy-making and corporate strategy considerations. The World Economic Forum and the British Department of Trade and Industry use it as a base framework to compare the competitive advantages of a certain industries between different countries (WEF, 2005).

The Case of China

The Chinese online game industry is a cultural industry and is not driven by economic forces alone (Wang, Goonasekera & Servaes, 2000). Influencing factors such as the collectivistic culture, decentralized economy and the one-child policy were equally important in shaping the social and cultural trends that led to the rise of online game industry in China.

The collectivistic culture is the particular interpersonal relationship with which the Chinese perceive themselves in relation to others and which defines their social obligations in Chinese society.

The change from a planned to a decentralized economy is another factor that has transformed Chinese society. “China's contemporary cultural features have changed from a single, authoritative voice to multiple voices, from hegemony to plurality” (Zhang, 2007). Chinese online gamers are mostly young people ranging in age from 18 to 30. This population comes from the generation under the influence of the one-child policy. These only children have cultivated a growing obsession with consumerism and belong to a better-educated generation than their parents, who grew up during the Cultural Revolution. Elegant (2007) calls this single child generation is the “me-generation” -- self-motivated young people, many of whom have traveled to other countries. In his article it is recorded that around 37 million of them traveled overseas in 2007.

The History of the Online Game Industry in China (2000 – 2007)

China's rise in the online game industry illustrates the type of industry dynamics that is strongly shaped by local economic, political and social factors. A review of the history shows that the online game industry in China did not begin until early 2000, when privately-

owned local companies started to distribute foreign games into the Chinese market. Before the late 1990s, there was virtually no online game industry in China. Most of the foreign game titles were from Korea. The Korean games dominated the domestic Chinese market during this early period, but soon local Chinese online game distributors and operators developed in-house games. These companies created an agglomeration effect by working with both local and foreign firms and then entering all dimensions of the value chain in the game industry. From 2005 on, the number of Chinese homegrown game titles exceeded the number of foreign games in the local market (IDC, 2006) and were beginning to be exported to various markets in Asia.

According to Table 1, the development of the industry can be divided into three stages: 2000-2002, 2003-2005 and 2006-2007 (the present). Stage I (2000 – 2002) was a period when local game companies emerged as distributors of Korean games and achieved success in the Chinese market. Industry data before 2002 is not available, partly due to the fact that the industry was not formed as a separate IT industry at that time. After 2002, the number of game titles developed by local Chinese companies surpassed the games imported from Korea. During Stage II (2002 – 2005) local game companies started to engage in merger and acquisition activities in order to gain the competitive advantage. Stage III began in 2005, as Chinese game titles became more popular than foreign games in the Chinese market. Major companies that rose during this stage include Giant and Perfect World. Both were ranked among the top five game companies in China in 2006 (CNNIC, 2007).

In 2006, the top five companies occupied a total of 72.7 percent of the local market (iResearch, 2007). However, the market was still not fully developed, as the number of existing gamers only constituted a small portion of the total population of 1.4 billion. The iResearch reported that 100 new users were added into the internet population every minute in China. In 2007 there were a total of 210 million online subscribers in China (CNNIC, 2007). When economic growth allows more Chinese families to own computers, “the pace of developing entertainment industry accelerates” (Wolf, 1999; Latham, 2007). Online games are now an important and rapidly diffused entertainment medium in China, with 32.6 million gamers by the end of 2006. The number of gamers is expected to double to 69 million by the year 2011 (IDC, 2007).

Industry Analysis

Applying the Diamond

This section considers the basic application of Porter's model to the Chinese online game industry. In the analysis section, pseudonyms are used in the interviews, which were conducted during fieldwork by Jiangping Yuan, from November to December 2007. This analysis includes 15 local game companies, such as NetEase, Perfect World, Sohu, Kingsoft, Apex, Moli, Tianchang, Iyoyo, Shanda, NetDragon, The9, Joyzone, Giant, Optic Communications and Quarter Digital. Most of these companies are leading online game companies, collectively occupying more than 80% of the Chinese online game market share (iResearch, 2007). Table 2 provides the market performance of these overseas listed companies. Some of the eight online game companies are listed on the New York Stock Exchange, while the others are listed on the Hong Kong Stock Exchange. These eight companies are, respectively, first tier companies Shanda, NetEase, Giant and The9; and second tier companies Net Dragon, Perfect World, Kingsoft and Sohu. Altogether, they accounted for a total of 72.08% of the market revenue in 2007.

Most of the interviewees are with top management whose work deals directly with corporate strategy and marketing. With the exception of NetDragon, which has its headquarters in Fuzhou in the southern part of China, all of the companies are either based in Beijing or in Shanghai. Face-to-face interviews with NetEase, Perfect World, Kingsoft, Sohu and Apex employees was conducted in Beijing; interviews with Moli, Tianchang, Iyoyo, Shanda, The9, Joyzone, Giant, Optic Communications and Quarter Digital employees were conducted in Shanghai. The NetDragon interview was a telephone interview, due to geographical difficulty of traveling to the city of Fuzhou.

Four concepts are used to understand the basic application of Porter's Diamond to the online game industry of China: production, distribution, supporting industries and firm strategy. Ren and Yang (2004) argue that the success of the online game industry of China is due to attributes such as factors, demand, supporting industries and firm strategy. These attributes include skilled resources, an advanced online game technology base, the rapid growth of the number of internet users, the emerging market trend toward entertainment, fast broadband development, the support of the Chinese telecom industry, the easy availability of internet cafes, and the increasing financial activities of domestic online game companies in both international and domestic markets. They argue that, for instance, that China has the skilled resources that can allow them to leap industry barriers in the areas of information

technology and innovation, as “Chinese software makers are nearly reaching the level of their Korean counterparts in terms of graphics skills and other technical aspects in 2D games” (*ibid*).

Next section extends Ren and Yang’s basic application of Porter’s model to the context of the political economy of communication, where a comparable analysis can be made to existing literature that discusses the complexity of media globalization in the works of global Hollywood:

a. Production

This study discovered that China’s production standards lag behind those of major international game companies. Their products are not compatible to Korean and western quality, exemplified by games such as *World of Warcraft* from Blizzard. However, easy capital allows these local game companies to enjoy market competition by having the freedom to move between publishers that release marketable foreign products and developers that experiment with self-innovated games in the local market. For instance, the 3D game of *Chengdu*, produced by Giant, has proved the expertise with which local game companies understand local gamers and have the ability to produce game titles in their content creation that meet the tastes of their market.

In an interview, a corporate manager from Giants, Mr. Lin, considers that technology transfer contributes to local game companies establishing in-house development. Despite the fact that foreign game companies such as Electronic Arts, Ubisoft, and some Korean game companies still produce higher quality game products than local game developers, China’s status as an outsourcing resource for these game companies provides an alternative source of skilled labor to quickly build talent resources and human capital for the online game industry. Mr. Lin sees the replacement of the EA brand in the Chinese market with local products as just “a matter of time.” Interview data from Mr. Zhao, corporate manager of Kingsoft, supports a similar viewpoint. As Chinese games now become popular in Southeast Asian countries like Vietnam, game companies start hiring experienced professionals from Korea. Mr. Zhang, corporate manager with NetEase, defines the current competitive advantages of the online game industry in China:

I think the quality of our online game product is comparable in the global market. I have been on frequent business trips to Korea and the US to learn about industry and product updates from around the world. I know that Chinese online game makers are almost reaching the level of their Korean counterparts in terms of graphic design and

other technical aspects, but we are still learning from them (Mr. Zhang from NetEase, interviewed on Nov 28th, 2007).

Chinese online game companies gain easy capital, especially those that are listed on overseas stock markets. These companies have adequate financial resources for corporate development and expansion. They not only obtain large funds from foreign stock markets, but also earn big profits from the domestic market.

Money is never an issue for leading online game companies. You will never hear any big online game company being fearful of capital inadequacy. We are a Nasdaq listed company with 300 million yuan in the cash flow category only. I am sure other big names are in a similar situation. Even smaller companies with 2 to 20 staff could get private equity or venture capital to invest in their businesses (Mr. Zhang from NetEase, interviewed on Nov 28th, 2007).

With adequate capital, these bigger game companies are aggressive in engaging in merger and acquisition activities. Shanda is the best example:

We discuss acquiring or cooperating with smaller rivals each and every month. We have an “18 Plan” and a “20 Plan”, which means on the 18th and 20th of each month, we talk about purchasing or cooperating with smaller game companies, including the developers, web design companies and so on (Ms. Hua from Shanda Interactive, interviewed on Dec 19th, 2007).

Venture capitalists are actively searching for opportunities to get into the Chinese new media industry. The competition among start-ups adds pressure in business planning and strategy.

I have nothing but a proposal. My plan in the online gaming business will win a niche market and a partner expertise in technology. Since our establishment a few months ago, more than 20 venture capitalists have approached us to listen to our business plan. Like money-hungry start-ups, many investors are concurrently actively searching for opportunities to enter this market. Nothing is more important than a persuasive profit-making story (Mr. Wang from Apex, interviewed on Nov 30th, 2007).

Expertise in producing content that fits the tastes of the local consumer is seen in the statement of the manager from one of the three largest online game companies, NetEase:

We now have employees numbering about 1,000. Seventy percent of them are game developers. Around 250 people are in customer service. Our game developers and game directors are very strong... We collect comments from our customers and adjust their needs into the game design. This production style increases our quality

standards in game development. We have started participating and winning awards in international game exhibition competitions (Mr. Pang, interviewed on Nov 28th, 2007).

b. Distribution

Online game companies in China built successful distribution networks to deliver their game content to consumers through sophisticated customer service. While game companies studied foreign games in order to understand the desires of consumers in their early game design concepts, the game companies also tried to identify the unique traits of Chinese gamers by requiring game company employees to play the games during their working hours at the companies.

A manager from Joyzone who has observed small-scale Chinese game developers competing in the market considers those companies to have the expertise to “activate the local virtual community”:

We have hundreds of staff involved in customer service. They are usually game fans... A typical working day for them is that they play games, stay online to interact with other gamers, deal with phone calls and virtual messages from gamers, and send client feedback to R&D department to timely modify our game titles. Sometimes they initiate game events to attract more gamers (Mr. Wen from Joyzone, interviewed on Dec 19th, 2007).

Local game companies learn from foreign games through working on research and development projects with Korean game companies. In the minds of the Chinese entrepreneurs, the creation of consumer demand is significant. Learning from foreign game companies is more important than maintaining the pride of Chinese nationalism. Mr. Wang, a corporate manager from Optic Communication comments on his willingness to work with foreign companies:

In the field of communications we trade with foreign companies in order to learn their technological knowledge. In online games, the same rule applies. There is no doubt that local game companies can access the market, but the Korean game companies have the skills. At this moment we should not limit ourselves with a narrow sense of Chinese nationalism. We should work with Koreans. We should ask them how much of their skill they are able to offer to us if we trade them this share of the local market in China (Mr. Wang, interviewed on December 24, 2007).

A specific example of this is local game companies working with Korean companies to create smooth content delivery channels in China. A typical project includes the promotion of pro-gamer competitive activities that originally started in South Korea. According to the interview with Mr. Wang, Optic Communications formed a digital competition club in 2004.

The company contracted seven professional gamers such as “Chen Ming”, “Lin Shiao Kang”, and “Shu Bin” who were popular game players in online game competition among the local consumers. This was the first pro-gamer team representing China to attend international game events, including World of E-Sport Game and World of Cyber Game².

On the internal level, local game companies also actively engage in marketing plans to understand the market structure and potential market niches in China. In general, the Chinese market has a strong demand for games that feature traditional Chinese fantasy stories. In 2007, the top ten online games in the market were *Fantasy Westward Journey*, *Zhengtu*, *World of Warcraft*, *Wen Dao*, *Mo Yu*, *Westward Journey Online II*, *Shaiya*, *Mir II*, *Sun* and *Yulgang* (China Analyst, 2007). The majority of these titles are local games produced by companies such as Perfect World, NetEase and Sohu. The rise of these games has created local demand in PK³ genre games and martial arts games.

The idea of learning from consumers to understand market demand is supported in the following interview, in which Mr. Lin from Giant expresses how he arrives at his understanding of his company’s consumers by playing games himself. He states:

Ultimately, it’s the accurate analysis of market demand that counts. I play games almost every day, whenever I have time, because I want to personally experience the game as an ordinary gamer (Mr.Lin from Giant, interviewed on Dec 18th, 2007).

Chinese gamers are often perceived as being very devoted and having a high degree of involvement in their game play. Mr. Wang of Perfect World explains the high degree of participation among some gamers:

The gamers like to play our games maybe because of the beautifully designed virtual space and the possibility of showing off. I heard that one gamer is called “fashion model” because he did not join any of the collective activities. He just stood there with the most shining clothes and weapons. He has been standing there for several months, but spent more than 10 thousand per month purchasing the items (Mr. Wang, Perfect World, interviewed on November 29, 2007).

² World of Cyber Game (WCG) and World of E-Sport Game (WEG) are two international game competition activities that originate in South Korea. The sponsors of both competitions are South Korean multinational corporations of Samsung and CJ Entertainment. Both competitions aim to promote South Korean corporations and their products. The difference between the WCG and the WEG is that the former focuses on the international market and holds competitions in different parts of the world, while the WEG has a regional focus on China. Both WCG and WEG are reputable for the participation of professional gamers from all over the world.

³ PK is a popular slang term among Chinese hardcore gamers. The term means “Player Kill”. It indicates strong violence in the virtual world where gamers go online to simply kill other players. This PK game play has become popular in most MMORPG and first-person shooting game genres among the local gamers in China.

Local game companies consider gamers who live in middle-sized and small cities as the major gamer group for local demand. This classification is based upon the ability of most Chinese gamers to manage their daily media consumption in a way that they can afford. The following quote from a corporate manager of NetEase indicates such a pattern:

The demand of gamers is pretty much diversified. There are now many categories of consumers. For example, the gamer group that we target in Shanghai is substantially different from that for Zhengtu. It's like the movie-making business. Different people have different tastes. Specifically, the gamers for NetEase are usually teenagers or those in the 20s in small and medium-sized cities. This group of people has little pressure to make a living and a moderate amount of cash to spend, so the price of 40 cents an hour is acceptable to them (Mr. Pang, NetEase, interviewed on November 28, 2007).

Gamer sophistication and demanding domestic buyers push the firms to provide better products and services. The fieldwork data shows that the success or failure of the Chinese online game industry will depend on the capability of these companies to meet their domestic demands. As some companies focus on delivering content that attracts consumers by building up their virtual identity within the games, some others focus on low-priced models. Consequently, new distribution models that fit the taste of local markets have appeared in China. The Chinese market requires “free-to-play” content if an “item-based” charging business model is offered. That is, unlike most western online games that rely on monthly subscriptions to secure market revenue, most online games in China offer their games for free. The companies profit when players purchase virtual items in the course of their game play. Mr. Lin from Giant mentions the formation of such a market in the following interview:

We pioneered launching free-to-play game titles, or you may call it the item-based business model, and became very successful. But this model does not mean that we could not make money, even though 80% of our gamers do not spend a penny. We can still make money. Why? Chinese gamers, or consumers, have a different habit of consumption. They enjoy collective work, staying on a winning team, showing off their superior items to establish identification, and etc. And we provide such a platform (Mr. Lin from Giant, interviewed on Dec 18th, 2007).

c. Related and Supporting Industries

The fieldwork supports the fact that there are strong related and supporting companies located near the online game companies. Online game companies are mostly located in the

high-tech areas of Beijing and Shanghai. An obvious advantage of this is the easy and quick adoption of technologies within the industry clusters.

The effect of the concentration of peer companies in the same region is seen in technology acquisition and in the prevalence of job-hopping among competitors. The technology spillover helps follower companies to catch up to first movers, but job-hopping of employees among peer companies weakens them, while a company located at a distance from industry clusters may retain their employees.

Our team is stable because we are located in Fuzhou, far away from the game company-centric areas of Beijing and Shanghai. The chance of our employees being approached by rival companies is unlikely to occur (Ms. Sun from NetDragon, interviewed on Dec 17th, 2007).

The emergence of the online game industry has opened up numerous opportunities for related and supporting industries to facilitate the formation of industry clusters. The supporting industries including computer hardware manufacturers, game and animation developers, telecom operators and Internet cafés -- earned 33 billion yuan (US\$4.3 billion) from online game-related business in 2006 (CNNIC, 2007). Ms. Sun of NetDragon explains the linkage of the online game industry to other supporting industries:

We are moving from being purely a game operator to a company that combines businesses in game development, marketing, operation and customer service. The online game industry is a highly lucrative business. Our business is strongly supported by related and supporting industries, as well as the local government (Ms. Sun from NetDragon, interviewed on Dec 17th, 2007).

Increasing connections with the Chinese movie industry has had a widespread effect on the game industry. International demand for cultural products involving Chinese martial arts and history has supported the movie and animation industries. These supporting industries supply high-quality and low-cost production talent who further stimulate new ideas and create synergy among the industries.

Our popular online game title, Zhuxian, is the adoption of a popular online novel. Our to-be-launched product, *Chibi*, is derived from a TV play with a same name. Every Chinese knows it is a story of ancient Chinese history (Mr. Chen from Perfect World, interviewed on Nov 29h, 2007).

Therefore, the combination of the online game industry with other traditional media leads to the production of cultural content that can appeal to the overseas market.

An example of collaboration among talent in different industries can be seen in a game entitled *The Sign*, produced by Shanda. The production of this game involved a musician and a director from the movie industry. Musician He Xuntian (composer of *Sister Drum*) composed the background music for the game, and film director Chen Kaige (director of *Farewell My Concubine*) served as art director.

Due in part to this kind of collaboration between industries, Chinese online games now penetrate into overseas markets in Taiwan, Vietnam, South East Asia and some countries in the west. The following interview explicates how Chinese online game companies benefit from supporting industries in their exportation of cultural content that contains traditional concepts of Chinese culture.

There is no worry over cultural hindrances of local game companies exploring the overseas market. We believe that the purely traditional oriental element might be the unique selling point for our game products, be it in the demonstration of Chinese cuisine or in the story-telling of our history. All of it is content that we are familiar with, but it is still fresh to foreigners. Eastern culture is accepted in the west, as we see in the Chinese movie industry (Mr. Wang, general manager, interviewed on December 20, 2007).

d. Firm Strategies and Rivalry

An analysis of firm strategies and rivalry using the Diamond Model shows a particular style of industry dynamics, based upon free market competition within China's controlled economic system. Strong governmental regulation restricting the entry of foreign game companies creates an industry environment that allows fierce competition only among local game companies. Foreign game companies face regulatory challenges that are too restrictive to follow. Cultural challenges from the local gamers also hinder their competitiveness. This restricted environment leads to the possibility of collaboration between local and foreign game companies.

Mr. Wang from Optic Communication explains the competition for employees among local companies which he experiences in the constant talent search of headhunter companies calling his employees. He states that mobility is high both within the corporation itself and between corporations:

My company has about 400-600 staff. The mobility of staff in the online game industry in Shanghai is high. There are headhunters commissioned by rival companies to call our employees with new job opportunities. It is

difficult to hire experienced and well-educated staff (Mr. Wang, Interviewed on December 24, 2007).

In another case, Mr. Wu switched careers due to the fast promotion track and wealth prospects in the online game industry. Mobility is seen as a high motivation for transferring to the online game industry from other industries.

I was in architecture three years ago. I entered the online game industry because I am a game fan and this is an amazing area. It is not easy to make the transition, but this industry is so exciting... (Mr. Wu from Optic Communications, interviewed on Dec 14th, 2007).

In addition, the interviewees believe a causal relationship exists between intensive domestic competition among rivals and the creation and sustainability of a competitive advantage. The extent and impact of domestic rivalry in China's online game industry is important to motivate the entire industry. In domestic-oriented work, it is reasonable to conclude that strong competition has fostered improvement and new product development. Vigorous domestic competition encourages product development and marketing, cost efficiency, quality improvement and pressure for companies to explore new markets domestically and internationally.

The industry is dominated by privately owned companies; barriers to entry and exit are relatively low, and there are dozens, if not hundreds, of new entrants each year. As a result, thousands of companies jostle for a place in the online game market, creating an additional competitive pressure (Ms. Hu from Quarter Digital, interviewed on Dec 20th, 2007).

Though different in their target segment of gamers, the interviewees are similar in their attitude toward domestic and foreign competitors. Domestic companies are considered as the major competitors of most local game companies in the Chinese online game market.

Direct competition comes from domestic rivals, though different companies targets different categories of consumers. We do feel pressure from them and want to know what our peers are considering (Mr. Zhang from NetEase, interviewed on Nov 28th, 2007).

Foreign rivals are generally not involved in competing for the Chinese domestic market. These foreign companies use China as a purely R&D center. The strategies adopted by the multinational game companies including EA and Ubisoft are

a continuation of existing services in their parent companies. These MNC subsidiaries serve their parent company's clients, usually with quality products tailored to Western consumers.

These companies are not competing with us for the domestic market. I don't see them as foreign rivals because we are targeting different markets. Though they are big names, EA and Ubisoft's standing in China is beneficial rather than threatening. China is currently an outsource center of EA and other foreign brands. The cost efficiency is obvious in the relatively lower cost of human capital. In the US, it costs US\$200,000 to hire a senior game developer, but in China, it's RMB200,000, only 1/7 of the US standard (Mr. Lin from Giant, interviewed on Dec 18th, 2007).

Nevertheless, international competition is not as motivating as that among domestic companies. If these foreign giants start to explore the Chinese online game market, they might face a challenge: how can a common set of institutional foundations be supportive of different structures and processes of the online game industry within different social contexts? This partly explains why foreign rivals need to cooperate with a local Chinese partner.

The result of direct competition among local game companies is that successful companies that break the entry barriers and remain competitive in the Chinese market gradually expand their services to the global market. For instance, Shanda has successfully gone through stages of merger and acquisitions with domestic companies and is now starting to build strategic alliances with international media companies including Walt Disney from the US and NC Soft from Korea. The history of merger and acquisition activities of Shanda, illustrated in Table 3 provides an example of a local game company using collaborative and competitive strategies to gain entrance into the international market. The following comment explains the global expansion plan of Giant into the US market:

Our problem now is that we do not understand the US market. But since many American games outsource their production to China, this collaboration gives us some preparation to develop talent. One day when they are ready, these outsourcing companies, will not need a logo from EA anymore. We can then use our own brand. This way we will be able to be on our own in those markets (Mr. He, Giant, interviewed on December 18, 2007).

Going Beyond the Diamond

There is a lack of study of other external influences on the growth of an industry in developing countries, such as world economic integration and local cultural preferences.

According to Porter, the influencing factors that could either benefit or harm the four determinants of competitive advantage are chance and government. Chance includes elements that go beyond the control of firms or industries. It usually refers to major changes in the macro environment, including war, substantial change in demand, drastic shifts in the exchange rate, and major technological breakthroughs and inventions.

Another factor that could influence the four determinants is government involvement in policy-making. Porter believes that government involvement is outside the four attributes of the Diamond because government itself could not create competitive advantage; the government can only be a positive or negative influence on the four determinants through its policies.

a. The Chance Factor

In the category of chance, the data shows that the external influences on the sources of competitive advantage for the Chinese online game industry derive from variables associated with traditional Chinese culture and its influence on the open economy. Chinese collectivistic culture motivates people to value their relationships and social obligations within a team, though diversified consumer taste, the aspiration for teamwork, and efforts to build self-identity in the virtual world might also be major motivations for playing MMORPGs.

For instance, in Chinese collectivistic culture, self is identified in terms of relationship with others and social responsibility. The strong identification with the game indicates a difference of collective cultures between East and West. Mr. Zhang compares such cultural differences to a preference for either coffee or tea.

For Chinese people, home-grown games are like tea and the imported ones are like coffee. We think that most Chinese will choose tea (Mr. Zhang from NetEase, interviewed on Nov 28th, 2007).

Ms. Hua sees this difference among western gamers and Chinese gamers in their preference for console games or online games:

People in Europe and the US like to play console games. At least that is the fact at present. Console games tend to encourage development of individual potential. They are more interested in conquering more difficult and complex games in the process of playing (Ms. Hua from Shanda Interactive, interviewed on Dec 19th, 2007).

China's economic reform transformed the centralized planned economy to a decentralized one. As a result, Chinese culture has changed from an authoritative voice to one

with multiple voices (Zhang, 2007), Diversification of demand comes from appreciation and acceptance of different cultures. An interviewee from a small game company states that the insertion of European cultural elements in the game title can attract more Chinese gamers:

We want to target the domestic market in an indirect way. We want to sell our products in European markets before returning to China. We believe that the European element in our title could help boost sales in the Chinese domestic market (Ms. Hu from Quarter Digital, interviewed on Dec 20th, 2007).

For instance, Illustration 1 shows the visual representation of a female character named Rose, in the game *Westward Journey Online*. The story takes place in the Tang Dynasty; however, the appearance of the female character does not appear historical. Rather, Rose is an image of a modern female. Graphic design such as this shows that a mixture of eastern and western cultural elements is accepted by Chinese gamers.

b. The Government Factor

The political factors influencing the industry include the one-child policy, government tax reduction schemes in support of creative industry, the Internet Addiction Prevention System, and the most importantly – media censorship. The game players are mostly young people who value consumerism and grew up without sisters or brothers. There is a natural thirst for socializing in this single-child generation.

I think the success of our games and Tencent may be because of China's one-child policy. The new generation is more lonely and hence, they are more eager to interact with others (Mr. Zhang from NetEase, interviewed on Nov 28th, 2007).

The online game platform itself is a good social space for group entertainment. These gamers usually voice their complaints online or via phone calls whenever they come across a problem in playing a game, creating constant pressure on game companies in their game title development and modification.

Local game companies work closely with the government to carry out the government's policies. For instance, in 2006 the government applied a new policy to reduce the negative influences that online games can have on the general public. The regulation requires major internet companies including Shanda, NetEase, The9, Kuanzhong, Sina and Sohu to install a rating system that monitors the number of playing hours among the gamers. This Addiction Prevention System is to prevent online users from spending long hours playing games. The system sends out warnings

to players who play games in a game server for more than three hours. This monitoring system again reflects the controlled environment of China's internet regulation and the media censorship that the state uses to control the direction of the development of the online game industry. The following interview from Mr. Pang of NetEase confirms the influence of media censorship in the process of content creation for a game:

Media censorship exists in many countries. Now we need to look at this issue more carefully and more objectively... We do not want to have different opinions from the government. Violence, pornography and issues that are political all need to be avoided. For instance, for game that is about *Falun Kong*, we cannot design a virtual scene that allows the players to explode the *Forbidden City*. We are aware of the issues, so we do not ask for trouble by irritating the government (Mr. Pang, NetEase, interviewed on November 28, 2007).

Conclusion

This study concludes that there is a competitive advantage in the online game industry of China based upon Porter's model. Industry dynamics are seen in the aspects of production, distribution, supporting industries and firm strategies where local game companies learn from foreign game companies at the beginning of their development. The industry grew from the initial stage of local game companies functioning as distributors of foreign games to the later stage where the full industry value chain is developed from developer to publisher. Porter's argument about influencing factors is seen in internet regulation policies. The industry reflects strong consumer demand for media content that is relevant to local culture. Media censorship also plays an important role in controlling information that can be produced by local game companies. This paper argues that the above factors together generate sources of competitive advantage for China. China's culture is collectivistic, as individuals identify themselves in terms of their obligations to and relationship with others. In addition, China's transition from a centrally-planned economy to a decentralized market-driven economy offers a freely competitive environment for the local online game industry to grow. The government policies that promote creative industry also result in the success of local products that can be successfully exported to international markets to meet the needs of global consumers.

In the globalization debate, global media intensify and connect people in different geographic locations in order to engage in media information exchange. Western media

continues to localize their media content and enter various media markets around the world. This case study shows that China has the potential to establish local new media industry through broadband technology. The size of market and government support offers an environment of free competition to local game companies. Global media giants serve in the role of facilitator, transferring R&D knowledge and production skills through joint ventures and business partnerships with local game distributors.

The content created by local game companies demonstrates a hybrid dimension of globalization where eastern and western cultural elements co-exist in the production of a game. Such a mixture of globalized images reflects the emergence of consumerism in local Chinese game players and demonstrates a form of popular culture that welcomes western influence on media products. Globalization in this context means the creation of a digital media commodity that follows a recognizable format in creating game narratives and graphic design already proven in pre-existing successful international games. Wasko (2008) argues that the creation of a film commodity needs to take into account the concern of reducing market uncertainty in film production. Similarly, the success of Korean and American games in China leads to the acceptance of international digital media art among local gamers. The success of local titles such as Perfect World shows that the combination of western visual art with kung fu narratives creates a selling niche for local game companies. This formula reduces the problem of market uncertainty for a game. It also demonstrates the complexity of globalization as the process is initiated by local game players rather than multinational game companies in China.

By applying Porter's model to this study, we see that the online game industry in China is influenced by increased competition from domestic rivalry in investment, product development, labor skills accumulation and ICT infrastructure. Domestic market size and growth, complex demand and the synergy of related industries play key roles in creating the competitive edge. The presence of global competitors in the local market benefits the industry in project management and talent building. Sophistication of domestic demand weakens the standing of foreign game titles and supports the export of homegrown titles. The online game industry's related and supporting industries demonstrate conditions similar to the IT and film industries. Domestic competition builds competitiveness, but the influence of global competition is still in the process of development.

This study concludes that China's online game industry is working in a self-reinforcing system to create international competitive advantages. The developmental

perspective of Porter's Diamond suggests that the Chinese online game industry is moving from the investment-driven stage to the innovation-driven stage. The research shows that a follower nation like China can develop a competitive advantage in new media industry. The application of Porter's model has helped to identify the sources of competitive advantage associated with a developing economy and has shown how political and economic influences affect the dynamics of an emerging industry.

Table 1: The total number of online games in China and their countries of origin from 2002 to 2007

	Total	China	Korea	Europe & US	Japan
2002	61	30	27	2	2
2003	114	47	60	4	3
2004	164	73	81	6	4
2005	209	109	91	5	4
2006	222	154	50	12	6
2007	203	133	64	3	3

Place of origin and number of game titles operated in China (2002 – 2007)

Source: <http://games.sina.com.cn/n/2008-01-07/1454230275.shtml> accessed on February 14th, 2008

Table 2: Revenue of overseas listed Chinese online game companies in 2007

	Market share	Annual revenue (US dollars)
Shanda	18.75%	352,000,000
NetEase	14.72%	274,000,000
Giant	12.10%	227,000,000
The9	10%	195,000,000
Net Dragon	5.04%	94,000,000
Perfect World	5.38%	101,000,000
Kingsoft	4.35%	81,000,000
Sohu	1%	25,000,00
Others	27.92%	526,000,000
Total	100%	1,877,000,000
Total revenue of world online game industry:		8,707,000,000

Notes: Though the public listed online game companies are usually the leading online game companies in China, this list is not a market share ranking. Other companies that were interviewed, including Optic Communications and Joyzone are not listed due to the unavailability of official financial data on their web sites.

Source: iResearch (China Internet Research Center). All the corporate revenue figures have been reconfirmed by verified annual financial reports on the corporate websites. From http://www.iresearch.com.cn/html/consulting/online_game/Graph_id_9821.html | http://www.iresearch.com.cn/html/consulting/online_game/Graph_id_9821.html accessed on June 18th, 2008

Table 3:

Shanda and its history of merger and acquisitions activities from 2003 to 2007

Year	Title of Firm	Type of Firm
2003	Chengdu Jisheng Technology	Local distributor
2004	Beijing Digital-Red Software Application Technology	Local developer
“	Zona	International developer (US)
“	Shanghai Haofang Online Information Technology	Local developer
“	Qidian	Local portal operator
“	Actoz Soft	International publisher (Korea)
2005	Gametea	Local distributor
2006	Walt Disney Company (strategic alliance)	International media company (US)
2007	Chengdu Aurora Technology Development Co.	Local developer
	NC Soft (strategic alliance)	International publisher (Korea)

Source: <http://www.snda.com/en/about/history.htm>

Illustration 1: Image of Woman Represented in *Westward Fantasy Online*



Source: NetEase Web Site at <http://xy3.163.com/2007/6/29/917_179487.html>

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