Enter the Dragon: Khillwar's Foray into the Mobile Gaming Market of China

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Abstract:

Khillwar is a mobile game developer from India faced growing competition. Its leadership position in India prompted it to scout out opportunities for growth outside the country. As a strategic move, the management team of Khillwar planned to expand into emerging markets and selected China as the new business battlefield. China seemed to be the promising land of opportunities for mobile game developers and operators. However, the Chinese market posed a number of significant challenges for foreign companies, making it risky to step into this market. This case discusses the opportunities and the key challenges associated with the decision to expand in China for an Indian mobile gaming software company such as Khillwar. The teaching case is focused on discussion of various issues that an IT company needs to consider when contemplating growth outside its country of origin. The students need to consider the pros and cons of expanding into the China market and make recommendations to the management of the Khillwar team on how to make the expansion smooth and successful. This case explains the challenges of expansion to a new IT market and, specifically, to a new emerging IT market for a successful IT company.

Keywords: China market, emerging market, globalization, international expansion, IT industry, Indian software firm, mobile gaming software

Editor's Note: A teaching note for this case can be obtained from indranil_bose@yahoo.com. Only active faculty who are currently listed in the AIS Faculty Directory are eligible to receive the teaching note.

I. INTRODUCTION

It was a sultry afternoon in June 2011. Bhrigu Mehta, the managing director of Khillwar, was heading to Shanghai for a one-week trip from Bangalore, India. In Shanghai, he would attend a week-long conference for Asian mobile game developers, and talk with some leading Chinese mobile game operators about the potential collaboration opportunities in the mobile gaming market. Bhrigu had to explore the current landscape of the Chinese mobile gaming industry so that he could convince his board of the need to expand in China. At the same time, he had the responsibility to scout out possible partners whom he could work with in Khillwar's ambitious China mission.

Since 2002, with the development of the national economy, the growing popularity of mobile services, as well as the huge improvement in the mobile networks infrastructure, mobile games had gradually become one of the most popular entertainment media in China. By 2009, the number of Chinese mobile gamers had reached 49.5 million, and was estimated to soar to 94.5 million by the end of 2013 [IDC, 2009]. With an ever-increasing customer base, the size of the Chinese mobile gaming market had reached nearly US$ 137.7 million by the end of September 2010 [Enfodesk, 2010]. The booming Chinese mobile gaming market had presented the world with a huge developmental space. Although there were numerous game developers in China, none of them were large enough to dominate the entire mobile gaming market, and there were untapped opportunities for new entrants, particularly the innovative ones.

The flight to Shanghai had been bumpy, but Bhrigu hoped that his trip in China would be smoother. Finishing his cup of lemon tea, he dug into the dossier that his market analyst had prepared. He wanted to be thorough in doing his homework before he met the Chinese game developers. His analyst had warned him: There were opportunities aplenty, but the Chinese dragon will be hard to tame.

II. THE GLOBAL MOBILE GAMING INDUSTRY

A Panorama of the Global Mobile Gaming Industry

Around the globe, mobile gaming enjoyed a growing popularity. From 2005 to 2008, the number of mobile gamers soared from 55 million to 183 million, contributing to a global revenue of US$ 6.9 billion in 2008. The solid growth in the gaming industry could be attributed to several major factors.

In the first place, the emergence of high-speed wireless networks played a leading role in enhancing user experiences, and driving the demand for mobile applications and Value Added Services (VAS). At the same time, development of mobile capabilities, such as touchscreens, 3D features, and online functionalities ushered in high-quality mobile games, which formed the cornerstone of the mobile gaming market. Rapid economic growth had driven the development of the mobile gaming market. With the development of the emerging market economy, more and more people were able to afford mobile phones with 3G features, thereby further fueling the development of mobile applications and services.

Besides, the mobile gaming market had several distinct characteristics, as discussed below:

- Large potential customer base: The International Telecommunication Union (ITU) estimated that the number of mobile subscriptions around the globe would hit 5.3 billion before 2011, including 950 million 3G service subscriptions [ITU, 2010]. The number of mobile users had already outstripped the number of computer users in every country, except the U.S. Accordingly, the potential market of mobile gaming might be much larger than the PC gaming market.

- Portability: In comparison to game consoles and PCs, mobile games were not an ideal gaming platform due to limitations in the size, visual effect, and operability of the mobile devices. However, these disadvantages had largely been offset by the portability of mobile games in mobile devices, which helped remove the spatial limitations of having entertainment and made mobile games a popular choice for leisure gaming.

- Low technical threshold and low entry barriers: The mobile gaming market around the world was fragmented because neither advanced technology nor enormous investment was needed for an incumbent to enter the mobile gaming market.

- Better accessibility: Different from traditional PC games, mobile games could be easily promoted through built-in menus of mobile devices, allowing gamers to directly connect to game platforms through a click.

- Short product life cycles: The short shelf life of mobile games was a great concern for investors in the gaming industry [Fleming, 2008]. The average shelf-life of a mobile game was typically six to twelve months [Mariya, 2010], which made it extremely difficult to maintain customers in the long run.

- Various mobile platforms: The presence of a large variety of mobile platforms, including iOS, Android, Symbian OS, Windows Mobile, and J2ME, drove the demand for cross-platform compatibilities.

India Mobile Gaming Market

At an estimated size of US$ 40 million, the Indian mobile gaming industry contributed more than 5 percent of the total mobile VAS revenue [FICCI and KPMG, 2009]. With the increasing penetration of data-enabled handsets and a huge subscriber base of 500 million [Ribeiro, 2009], it was estimated that the Indian telecommunications industry would continue to grow in 2011. However, in sharp contrast to expectations, the mobile gaming industry in India had experienced sluggish growth. The annual report of Indiagames Ltd., the largest online games developer and publisher in India, stated that there were four major factors that retarded the growth of the gaming industry. These included limited awareness of gaming products, shortage of infrastructure, and dropping ARPU (Average Revenue per User) and size of wallet. Furthermore, rampant piracy was another problem that threatened the development of the mobile gaming industry. It was estimated that more than US$ 500 million would be lost in India because of piracy every year. Game developers identified the high piracy rate as one of the biggest challenges in expanding their business in India [Sinha, 2007].

With one of the world's highly talented pool of programmers, India had become the center of a booming IT industry. The huge development potential of the mobile gaming market had always attracted numerous Indian companies to invest in this industry. Prominent Indian companies in the mobile gaming industry included Indiagames, MAUJ Mobile, and Zapak. (as shown in Table 1). A number of smaller players are not shown in this table. These companies followed different business models and revenue models. The list of prominent business models is shown in Table 2. Indiagames adopted a typical integrated model, playing the role of developer, publisher, and distributor and would reach its customers through its own websites. Trine Entertainment followed a co-publishing model, sharing its revenue with game developers. The other companies followed a service development model, uniquely working as game developers. These companies generally reached customers through network operators. In the service development model, mobile game developers could keep only 40 to 50 percent of the total revenue generated from the selling of mobile games, while the remainder was shared with mobile network operators [Tata Strategic Management Group, 2010].

Table 1: Key Gaming Companies in the India Mobile Gaming Market			
Company Name	Year of Establishment	Services	Capital Size as %age of Khillwar's Capital Size
Indiagames	1999	• Mobile game development • Online game development • Game distribution	67%
MAUJ Mobile	1997	• Mobile content and applications • Mobile software and services • Mobile media solutions	56%
Zapak	1995	• Cross-platform game development • Publishing for the self developed content	54%
Games2win	2000	• Mobile game development • Outsourced game content creation services provider	51%
Dhruva	1997	• Cross-platform game development • Outsourced game content creation	48%
Nazara Technologies	2001	• Cross-platform game development • Outsourced game content creation services provider	42%
Trine Entertainment	2006	• Mobile game development • Online game development • Game distribution	39%
Hungama	1999	• Cross-platform game development • Outsourced game content creation	37%

Table 2: Typical Business Models In the Indian Mobile Gaming Market			
Business Model	Description	Example(s)	Revenue Model
Integrated Model	Served as the developer, publisher, and distributor of own games at the same time.	Indiagames	Revenue consisted of sales of games, advertising, games licensing, etc.
Co-publishing Model	Game development companies and game publishers jointly invested in game development.	Trine Entertainment	Revenue sharing with game publishers.
Service Development Model	Worked as third party developer to develop the games conceived by publishers or developers.	Dhruva, Games2win, Hungama, MAUJ Mobile, Nazara, Zapak	Revenue based on billable hours for the project. Or formed partnership with game operators and shared revenue with the partner.
Source: Animation and Gaming Industry in India 2010 [TATA Strategic Management Group, 2010]			

The cluster of excellent companies intensified the competition within the country. As a response, Indian companies started to seek out partnerships from outside the country and set out to penetrate the global mobile gaming markets. Zapak scouted for joint venture opportunities in Russia and there was a rumor that they had invested US$ 1 million to acquire games from developers in Eastern Europe. Games2win received 5.1 million unique visitors from all around the world, and the users from the U.S. constituted 13.9 percent of Games2win's total number of visitors. In July 2010, Nazara Technologies formed a partnership with EA mobile, a division of Nasdaq listed as Electronic Arts. This partnership led to some joint effort in the development of innovative mobile games. In addition, Indiagames worked in a partnership arrangement with Nokia since 2001. The two companies worked together to develop state-of-the-art games, and the partnership was further enhanced in 2007 when Indiagames developed gaming services for the new NGage platform of Nokia. This long-term partnership added to the reputation and strength of both companies and helped the two companies survive in the competitive market.

China Mobile Gaming Market

As the largest emerging economy in the world, China was the star performer in aggregate GDP growth in the 1980s [Srinivasan, 2004]. China developed rapidly with its expansion through manufacturing until 1990s. In 2002 and 2003, the GDP growth rate of China reached 8 and 9 percent respectively [Lai, 2006], far exceeding the world's average during that period. China's economic growth largely resulted from the conscious investment of the central government. As a result of government intervention in domestic capital markets, China quickly developed hardware infrastructure including ports, roads, and power. At the same time, Chinese government adopted a series of policies to encourage foreign direct investment, and this drove China's GDP growth during 1999–2002. However, the government control also eroded the flexibility of local companies as well as the average work efficiency of the indigenous population. Furthermore, the development of high-end industries in China was confined to the cities due to the distinct gap between urban and rural areas.

By June 2005, the number of Internet users in China surpassed 100 million, and China ranked as number 2 in the world, right behind the U.S. with 211 million users (as shown in Table 3). More than 71 percent of China's Internet users were younger than thirty [Ji and Meeker, 2005]. Among these users, the two largest groups of users were company employees and students. Figure 1 shows the profiles of the mobile Internet users in China.

Table 3: China Leads the World in Mobile Subscribers and Ranks No. 2 in Internet Users				
Country	Mobile Phones (mil)	Internet Users (mil)	Mobile Phone to Internet User Ratio	Installed PCs (mil)
China	363	100	3.6:1	53
U.S.	177	211	0.8:1	207
Japan	88	78	1.1:1	55
Germany	69	51	1.4:1	39
UK	54	37	1.5:1	26
Italy	54	32	1.7:1	16
S.Korea	37	32	1.2:1	27
Source: Morgan Stanley Equity Research Global [Ji and Meeker, 2005]				

Mobile Internet Users by Employment
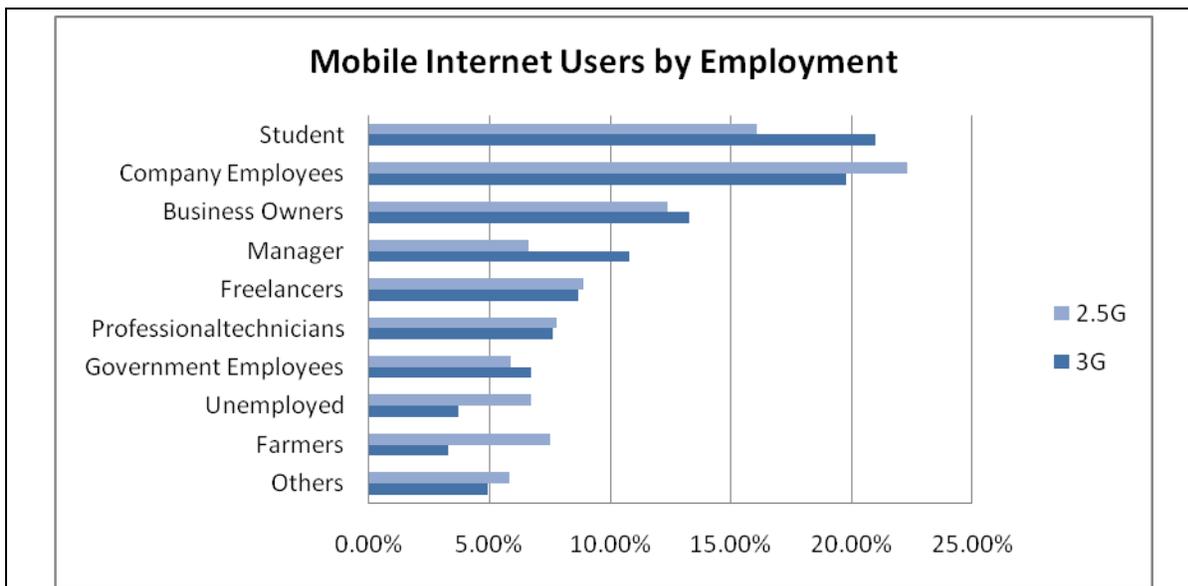
Source: CLSA Report [CLSA, 2010]

**Figure 1. Profiles of Mobile Internet Users in China**

Furthermore, 3G services were becoming popular in China. The total number of 3G users in China reached 16.06 million in February 2011. At the same time, the Chinese government planned to invest US$ 58.6 billion for 3G development. It was estimated that the total number of 3G services subscribers in China would hit 150 million by the end of 2011 [Xinhua, 2010]. At the same time, competition between Chinese telecommunications companies drove down the price of General Packet Radio Service (GPRS). This was expected to contribute to the increasing popularity of 3G services in China in the near future.

The three dominant mobile operators in China included China Telecom, China Unicom, and China Mobile. In May 2009, China Unicom became a pioneer in the Chinese mobile market by launching its first mobile payment services. Subsequently, China Mobile acquired 20 percent share of Shanghai Pudong Development Bank in order to establish a reliable mobile payment platform in the future. China UnionPay had already tested mobile payment services in six cities and regions. In May 2010, eighteen Chinese banks, together with three major mobile operators and a number of handset manufacturers formed the Mobile Payment Industry Alliance. After its beginning, the alliance built up a single, open platform that could facilitate near field communication and mobile payment services throughout China [ChinaPaymentsNews.com, 2010].

The Chinese mobile gaming market kept on growing since 2007. The number of mobile users in China increased nearly fourfold from 207 million in 2002 to 747 million in 2009 [ResearchInChina, 2010]. By the end of 2010, while the mobile market in developed countries reached a saturation level, the developing world increased the mobile market share from 53 percent in 2005 to 73 percent [Aircel India Limited, 2010]. Driven by the increasing number of mobile and Internet users, popularity of 3G services, and decreasing GPRS fees, the Chinese mobile gaming market enjoyed a strong upward momentum. In 2009, the size of the mobile gaming market in China reached US$ 240 million, with the year-to-year growth rate of 38.5 percent. It was expected that the mobile gaming market in China would reach US$ 2.5 billion in 2014 [Telecomasia.net, 2010]. Figure 2 shows the change of the Chinese mobile gaming market over the years (2004–2011), in terms of market size and the year-on-year rate of growth.

The most popular mobile games in China were casual games [Interfax News Service, 2007]. The casual games were limited by the operational performance, display capability, and battery capacity of handsets, and required no special skills to play. Still, they became the top choice for mobile gamers. Other popular game categories included battle games, massively multiplayer online games, and role-playing games [CLSA, 2010].

With the expansion of China's mobile gaming market, numerous mobile game operators sprang up. Figure 3 shows the mobile gaming value chain [Kontio, 2011]. Table 4 provides a summary of activities performed by the key players in the mobile gaming value chain. Game operators were middlemen who obtained games from game developers or in-house game development teams, and focused on game selling instead of game development. By 2008, there were approximately 120 game operators operating nearly 200 online games in China [Palmade and Anayiotas,

TREND PROJECTION OF CHINESE MOBILE GAMING MARKET SIZE 2008-2011
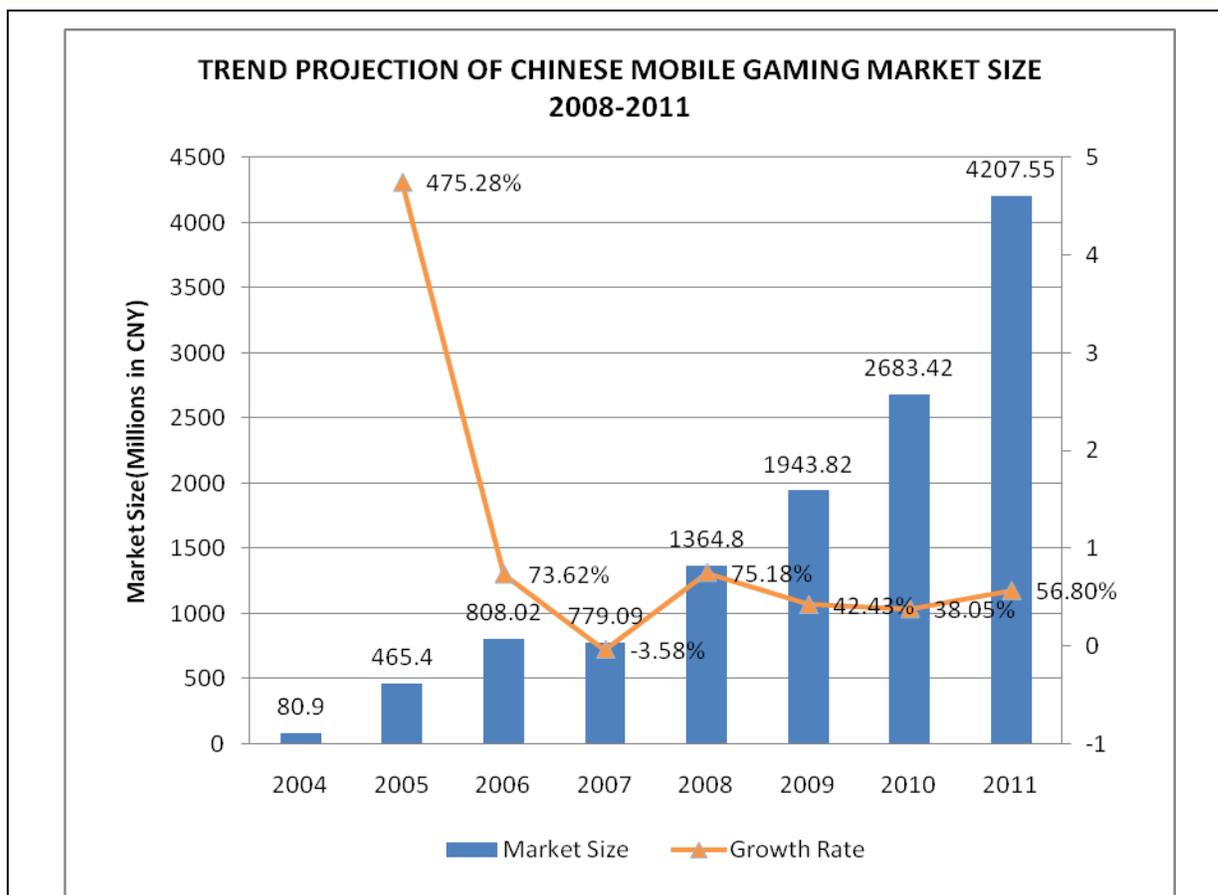
Source: Enfodesk [2010]

Figure 2. Growth of the Chinese Mobile Gaming Market

2004]. In terms of revenue, Giant Interactive, Shanda, Tencent, NetEase, Sina, and Kong.net were China's leading online game operators. Game operators generally had three ways to reach the customers: (1) promote mobile games through self-developed Web pages, (2) offer content to handset makers such as Nokia and Sony Ericsson, and (3) offer content to major Chinese network operators. While most small- and medium-sized game operators reached customers in less direct ways through handset makers and network operators, the top game operators including Shanda, NetEase, and Tencent, which already enjoyed a strong reputation and boasted a stable customer group, directly reached the customers through Web pages to avoid revenue sharing with handset makers and network operators.

Among the top three game operators, Shanda was a specialized game operator that had already established its reputation in the gaming industry for many years, while Tencent and NetEase were big players in other fields including telecommunications, Web news, social networking, etc. With the vision of building the largest gaming operation in China, Shanda had actively acquired a few mobile game developers and distributors and had developed an integrated developer–operator business model. As a specialized game operator, Shanda had kept its leading position in China for many years. However, in 2010, Tencent beat this top mobile game operator in generating mobile gaming revenue. As a response, Shanda absorbed Eyedentity, a Korean mobile game developer, through a US$ 95 million acquisition, with the hope of maintaining its market leadership through the development of new mobile games [Shriber, 2010].

Apart from game operators, the number of game developers in China had also increased. However, more than 90 percent of the game developers were small and medium enterprises with less than twenty full-time employees [Nuoda Consulting, 2009]. There was still no leading game developer that dominated the mobile gaming market in China. In order to survive in the competitive environment, most mobile game developers needed to seek support from leading game operators that possessed abundant capital and had direct access to customers. In fact, numerous game developers had already merged and integrated with leading game operators such as Shanda, Tencent, and NetEase after operating on their own for a short time.
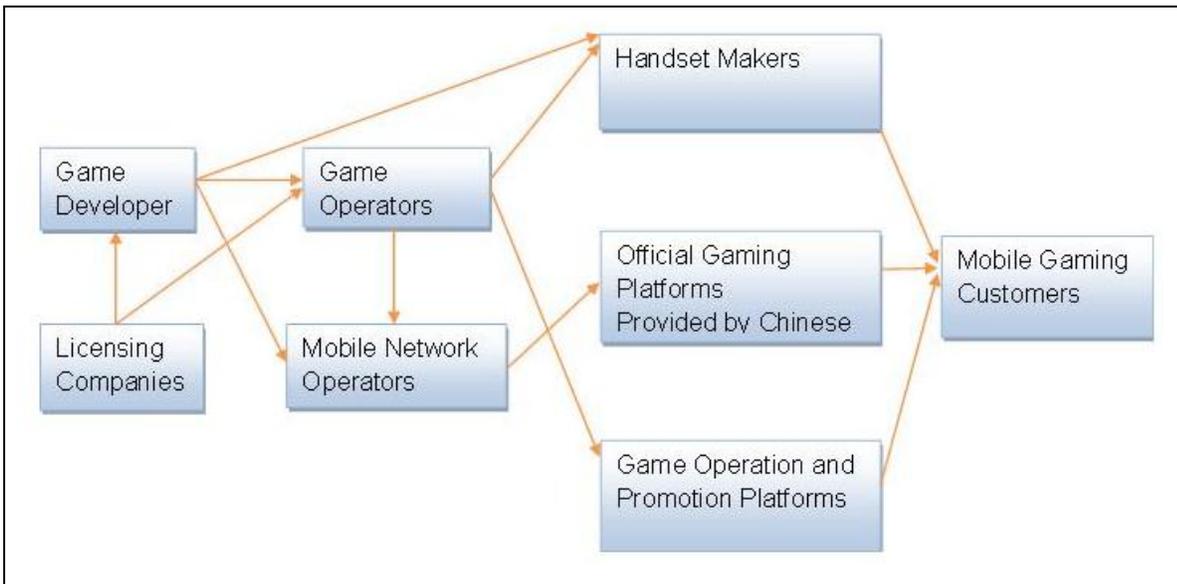
Figure 3. Mobile Gaming Value Chain

Table 4: Key Players in the Mobile Gaming Value Chain	
Key Players	Roles
Licensing Companies	Provided license and copyright protection for newly developed games
Game Developers	Developed and tested mobile games Provided mobile games to game operators, mobile network operators, and handset makers Did not have direct access to mobile gaming consumers Focused on technical aspects instead of marketing aspects
Game Operators	Offered games for sale Either developed games using in-house development teams or purchased mobile games from game developers Accessed customers through Value Added Services provided by network operators, through self-developed operations and promotion platform or provided games to handset makers Focused more on marketing aspects
Mobile Network Operators	Provided mobile network services Offered mobile games through Value Added Services Developed official platform for Value Added Services
Handset Makers	Manufactured handsets, embedded mobile operating systems and specific functionalities into the handset Embedded mobile games into mobile handsets as built-in games
Mobile Gaming Customers	Downloaded mobile games through mobile networks or WiFi, or played embedded games on handsets

The performance of local game developers was far from satisfactory. Stereotyped game content was a major problem area. Most of the locally developed games were imitations of their previous circulated games or foreign products. Since the online mobile payment platform in China was still not mature, there were three basic pricing models in use. One was to provide trial versions of the gaming software to customers and then charge a subscription fee after the trial period was over. The second method of payment was to charge a fixed amount of fee for unlimited use of gaming services. Another involved the download-charging method, in which gamers were allowed to experience the game as a free service, but were charged for downloading add-ons and accessories that helped to increase points or that enhanced the game playing experience.

III. KHILLWAR AND ITS GROWTH STRATEGY

Founded in 1995, Khillwar was one of the older Indian gaming companies. Led by Bhrigu Mehta, the company started its business from Bangalore, the "Silicon Valley" of India. The name *Khillwar* meant "gaming device" or "toy" in Hindi, and it was coined by Bhrigu because of its phonetic similarity with "Kill War." It was not coincidental that the first game that came out from Khillwar was a war game with excellent special effects. Khillwar was a gaming

company with an integrated developer–publisher model and offered PC games and television games to Indian game operators. With its deep knowledge of cutting-edge computer graphics technology and high-quality technical staff, Khillwar also provided a wide variety of game-related services, including game publishing, game testing, and outsourced game development services. Table 5 shows the different service offerings of Khillwar.

Table 5: Khillwar's Service Offerings	
Content Creation	• Identification of market needs and trends • Design of animation, art, audio, design/script, and music
Game Development	• Game design and programming in Artificial Intelligence • Engine programming and engine modifications (for both 2D and 3D engines) • Tool development (for both core and casual games) • Platform porting • Network and online development • End-to-end outsourced game development (PC, online, PS2/PS3/PSP and Xbox Live arcade titles)
Game Testing	• Compatibility testing • Compliance testing • Functional testing • International localization
Game Publishing	• Quality assurance for all devices and platforms • Product submissions and deployment across global markets • Localization for over 24 markets • Porting of games across multi-platform and mobile devices

In 1997, the successful launch of Warrior I, a PC game which soon became the best-seller in India, helped Khillwar gain its reputation in the market. After that, the company successively launched a series of PC and television games. In 1999, the online gaming market started to develop in India. As one of the largest game development companies in India, Khillwar recognized the opportunity of building its leadership in the Indian online gaming market. However, in order to expand its business and seek opportunities in the emerging online gaming market, Khillwar needed to capture the requirements of online consumers. By the end of 1999, Khillwar formed a joint venture with Reliant Communication Infrastructure Ltd., and together they launched twenty-eight online games in the following year. This strategic move helped Khillwar seize more than 58 percent of the market share. After the successful launch of online games, Khillwar became the top online game provider in India. At the end of 2000, in order to expand capability and maintain leadership in the online gaming market, Khillwar acquired Bhatia Groups, an Indian IT company specializing in online services. After this US$ 10 million acquisition, Khillwar became the largest gaming company in India.

In 2001, in response to the increasing market demand for mobile games, Khillwar launched its first mobile casual game—Tickles. Due to the unique design of the gaming interface, Tickles immediately gained popularity and soon ranked as the most favorite game in India in 2001. Subsequently in 2002, the company launched a series of mobile games, and gradually moved its focus from PC and television games to the more portable and flexible casual mobile games. In order to better promote the casual mobile games, the company formed partnerships with a few smaller Indian game operators such as AirBus and GWin. Khillwar continued to provide new gaming products to the Indian game operators for the next few years, portraying itself as a company that valued innovation and was not afraid to experiment with new and often risky technologies.

Khillwar offered a wide variety of gaming products for different platforms (Table 6). In 2010, the game Circle C—a casual mobile game which was developed on Symbian OS, became the best-selling mobile game in India. With the popularity of 3G services and the Android mobile platform, the mobile games based on iOS and Android platforms attracted gamers' attention and interest. In order to follow the market trend, Khillwar transferred some of the Symbian-based mobile games to new platforms and became the first cross-platform game provider in India. In 2010, the business of Khillwar continued to grow. The customer base of Khillwar reached 32 million by the end of the year, and it witnessed a 32 percent growth, compared with 2008. In 2010, Khillwar's profit reached US$ 2.6 million, and it ranked as the number one game developer in India.

Khillwar's strengths were its qualified professional team, as well as its open and innovative company culture, which it followed very successfully. As the leading game developer in India, Khillwar never underestimated the value of its talented employees. When the company was first formed, Bhrigu Mehta put a huge amount of effort in recruiting thirty-five talented programmers and game designers from all over the country. Over time these people became the

Table 6: Khillwar's Product Offerings (2009–2010)		
Platforms		Products
Smartphones	J2SE	Circle C, Tickles, Numero, etc.
	Symbian OS	
	iOS	
	Android	
	Windows Mobile	
Consoles	Nintendo DS	Route 6, Tomb, Panther, Masti, Dhamal, Sketchy, etc.
	Nintendo Wii	
	Playstation	
	PSP	
Desktops	Windows	Pyramids, Mahal, Great Kingdoms, etc.
	Mac OS	

most experienced technical managers and project managers and formed the foundation of Khillwar. In recent years, with the expansion of the company, the management groups of Khillwar continuously absorbed skillful game developers and maintained a large pool of talent through a high salary, attractive package of benefits, and a friendly company culture.

We value our employees very much. They are among the top programmers … even in the world. They are smart, hard-working, responsible, and experienced. With these people onboard, we are able to produce the most innovative and exquisite mobile games and gain a good reputation in the market. They are the foundation of our company and they get good rewards. Employee turnover is not a concern here. People stay on because they love their work, and the independence that comes with it.

Kamal Gupta, Operations Manager of Khillwar

In order to attract and retain high quality staff and allow meaningful communication of ideas, Khillwar adopted a flat organizational structure, which allowed for free communications between managers and employees. The company adopted a system of reward to encourage innovation and new ideas. The top management promoted innovation and viewed it as the core strength of its business throughout the organization. Figure 4 shows Khillwar's organizational chart including the top managers.
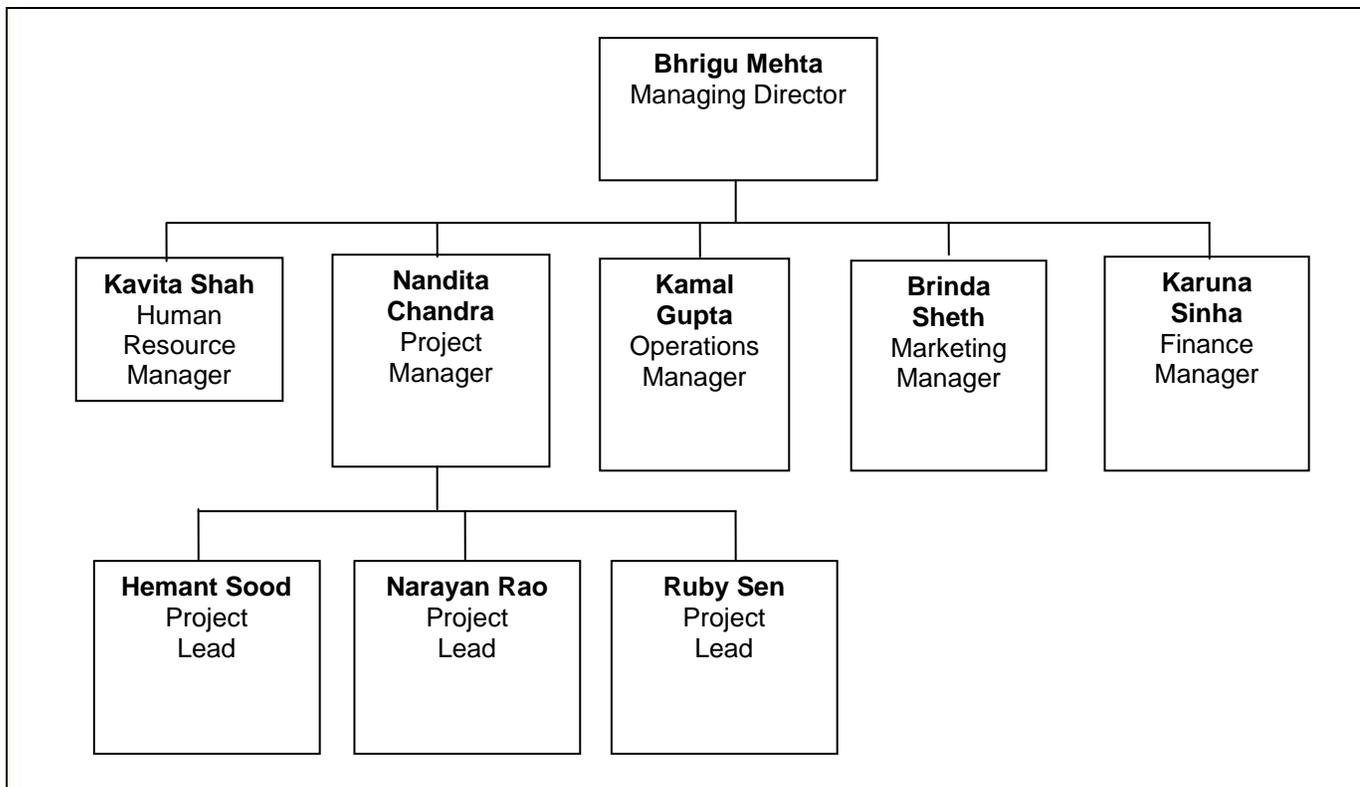

Figure 4. Organization Chart at Khillwar

Bhrigu Mehta, the managing director of Khillwar, was a strong believer of continuous improvement:

> *Our team members never stop seeking out new ideas and opportunities. The market environment is such that if you stop, others will catch up and eventually eliminate you from the competitive environment. The only way you survive is through continuous change. One way of change is through innovation and we have gone all out for doing that. The other way is through expansion. You can seek new opportunities in a changing environment. We already have a talented pool of skillful and innovative people. And I believe we have the ability to turn any change into a value added activity.*

<div align="right">Bhrigu Mehta, Managing Director of Khillwar</div>

Guided by the philosophy of change, Khillwar was never complacent with the success that it had achieved in a short time span and was always seeking out new opportunities. In 2004, as a part of its mission of strategic change, the company started to expand its business to the U.S. A head office was established in Sacramento, California, to facilitate the game development business in the U.S., and thirty programmers were relocated to the U.S. With its excellent technical capability, Khillwar provided game development and testing services for a number of U.S. game operators. The business in the U.S. was profitable and helped Khillwar build up its reputation for a large client group. In 2007, as an attempt to further penetrate the U.S. market, Khillwar launched a series of casual games together with the largest American mobile network operator—Verizon Wireless. This was widely touted as a major success and helped Khillwar gain 12 percent increase in its total revenue. The American experience made Khillwar more confident and interested in increasing its global reach.

IV. EXPANSION TO THE CHINESE MARKET

Encouraged by the success in the U.S., the management group of Khillwar saw the potential of stepping out of India and becoming a world-class gaming company. With this vision, the company started making plans to expand its customer base and increase its presence in other countries. In 2010, Khillwar started to look for opportunities in the less mature markets in Asia, and especially the market with the largest potential—China.

> *As the world's largest developing economy, China is expanding rapidly, and so is the Chinese mobile gaming market. In Shanghai, I witnessed the popularity of mobile games. You can see people playing mobile games, everywhere—on the bus, in the café, in the subway, at the Bund…. There are so many people who love playing mobile games. Wow! This can be a huge market for us.*

<div align="right">Bhrigu Mehta, Managing Director of Khillwar</div>

Characterized by a large number of avid mobile users, improved mobile network infrastructure, as well as increasing popularity of mobile games, the mobile gaming market in China presented a bright future for game developers and operators. Given the large market size, there was room for more competition in China. Furthermore, the supply of quality games in the Chinese market lagged behind demand. Although there were a large number of mobile games circulating in the Chinese market, the quality of these games were far from satisfactory. The content of these games was more or less the same. Most games were simply copies of existing ones. Also, the interface design was not good and there was no serious attempt to continuously improve the features or incorporate the latest technologies in them. Limited by their size as well as lack of technical know-how, most Chinese local game developers were not capable of delving into high-quality game development. Although there were numerous game developers in China, none of them had gained a high reputation in the industry, and there were still no leading game developers in the Chinese market. The market was largely fragmented. In order to meet the demand for high quality mobile games, most mobile operators spent huge amounts to acquire mobile games from Korea and Japan. The lack of quality game developers presented Khillwar with a unique opportunity to enter the unknown and unexplored Chinese market and take up a leadership role.

However, coupled with the opportunities also came a number of risks. The Chinese gaming market was largely immature and suffered from numerous problems. Karuna Sinha, the finance manager of Khillwar was concerned about the payment problems in China. By 2010, there was still no efficient and reliable mobile payment platform in China. In 2009, China UnionPay, China Unicom, and China Mobile worked together to develop a reliable mobile payment platform. However, it was not yet fully tested and accepted by the game operators. In addition, the low penetration rate of credit cards in China was another well-known obstacle of online business development in China. If Khillwar was to enter into the Chinese market, they would have to alter their practice of collecting payments using credit cards and come up with a new method of payment collection that was reliable, secure, and easily acceptable for the Chinese consumers.

Brinda Sheth, the marketing manager, raised another concern about entering the Chinese market, and this concerned the attitude of Chinese consumers toward a largely unknown foreign player.

As a new entrant into the Chinese market, our first step will be to understand customer needs and tastes. Mobile games are all about user experiences. If users don't like your style, they will not subscribe to your games. So we need to know the preferences of Chinese customers and whether they like pictures, background music, color, and other details. However, it will be difficult for us to collect these data since, you know, the language problems as well as cultural problems are present. Maybe what we understand is actually different from what the customer really wants, and that can lead to failure. Another problem is that for Chinese customers, we are still strangers. No one knows our name or our products in China. It may require a lot of effort and a long time to build reputation in China. We know we need to do that, but we are simply unaware how this can be done.

<div align="right">Brinda Sheth, Marketing Manager of Khillwar</div>

In order to penetrate the Chinese market, Khillwar needed to grasp the tastes and preferences of the Chinese customers. However, conducting market research by themselves was both time-consuming and inefficient because of cultural barriers. Furthermore, since the Chinese market already had some mobile operators, such as Shanda, Tencent and NetEase, which occupied a healthy market share in the mobile gaming industry, it was difficult for Khillwar to compete with these operators as the new kid in the block.

Apart from the above issues, language-related problems also posed challenges for Khillwar. In the first place, due to the mismatch in the language, original mobile gaming interfaces developed by Khillwar for its customers in India and the U.S. would no longer be reusable. Since Chinese consumers usually preferred Chinese interfaces for their mobile games, it became an urgent issue for Khillwar to develop Chinese-language-based mobile games. Nandita Chandra, a project manager in Khillwar expressed her concern about the language problems of interface design:

As I know, English proficiency is very low in China. If we develop the games in English as before, some gamers simply cannot understand it and will not subscribe to our games. Actually, almost 99 percent of the Chinese mobile games are written in Chinese. If we want to capture a large market share, we have to develop Chinese versions of our games. However, the problem is that simple translation is far from enough. You need to understand the linguistic practice and preferences of Chinese gamers. You also need to know what kind of format they like to see. It will be a tough challenge for us.

<div align="right">Nandita Chandra, Project Manager at Khillwar</div>

Kavita Shah, the human resource manager, felt that recruitment and retention issues for employees might become a major headache. If the company were to establish business in China, they would need to decide whether to relocate Indian engineers to China at high cost, or to hire local talent at a relatively low cost. If Khillwar were to hire local technicians, how would the Indian managers communicate with the programmers who would translate the English interfaces into Chinese and develop interfaces specially geared to Chinese customers. Kavita worried that communication barriers could even lead to poor efficiency and low morale among employees. She was also not sure where in China they should establish their development office. Shanghai seemed to be an obvious choice. But she was not sure if Shanghai could supply her with the programming talent that she needed.

Social Gaming

There was another major area of concern that bothered Bhrigu. The Chinese mobile gaming companies were moving fast toward development of games for social networking sites. All over the world, the social networking fever had spread very fast, and recent research showed that the percentage of mobile phone subscribers who were also mobile social network users grew from 2.7 percent in 2007 to 9.5 percent in 2010, and was estimated to reach 18.8 percent in 2012 [eMarketer, 2008]. China was no exception to this craze. The world leader in social networking Facebook was accessible in China only through Web-based services or proxies. Access was erratic, as the Chinese government made a conscious effort to block out such services from time to time [Anonymous, 2011]. While Facebook was not freely accessible for the Chinese netizens, the market led by domestic social networking providers was growing fast. Companies like RenRen, Kaixin001, Qzone, and 51.com were the top players [Lukoff, 2010]. Games were a popular application on these websites in addition to chatting, photo sharing, blogging, etc. RenRen had an open platform and encouraged third parties to supply them innovative games. The other social networking sites mostly imitated the games that appeared on Renren. Bhrigu read in a news article that Shanda was getting ready to supply games to RenRen [Chang, 2011]. There was also a rumor that Shanda was looking to acquire a company from Asia with expertise in that niche area. There was a pent-up demand for social games for these popular sites and leading game developers like Shanda were ready to explore this opportunity.

China's netizens are becoming more mature, they are becoming more accustomed to paying for gaming, and social gaming market opportunities will definitely continue to increase in the future.

<div align="right">Shaofei Gan, CEO of 5 Minutes [Backaler, 2010]</div>

Although Indians had taken to social networking with almost the same frenzy as the Chinese, there was absence of a leading domestic social networking site in India. Initially, Orkut was the most popular social networking site, but over the years it was Facebook that began to dominate the market. While the number of Facebook users increased from 11.24 million in November 2009 to 27.14 million in November 2010, the number of Orkut users remained stable [Agarwal, 2011]. The domestic social networking site BigAdda that gained some popularity among the Indian crowd announced that it would close down its social networking part of the website and migrate to an e-commerce portal [Vikas, 2011]. Khillwar never got involved with any social networking websites. Both Facebook and Orkut were off-limits for them, and gaming had not caught on as a popular application in any of the domestic social networking sites in India. Although Bhrigu's team had competent engineers who were quick learners and innovators, their total lack of experience in dealing with games for social networking sites concerned him. Would it make sense to go for development of social games in addition to mobile games for the Chinese market? Were social games just an extension of mobile games involving multiple players or were they totally different because they took advantage of the social ties between the players on a social networking site? Would this new direction help Khillwar build and leverage a market that was hitherto unknown in India? Would his programmers be able to grasp the nuances of social game design and come up with such games for the Chinese audience?

My definition of a social game is a game that has a very gentle learning curve, easy-to-understand UI, and lives on a social network taking advantage of your friendships in meaningful ways within the game. We're at the beginning of this style of games, and we're learning so much at a breakneck pace about the play patterns and desires of the largest gaming segment any game designers have addressed, and it's very exciting. These games are predominantly free-to-play and employ microtransactions as a business model, which presents very interesting challenges for game designers.

John Romero, Chief Creative Officer at Loot Drop [Lovell, 2011]

Social games like HappyFarm where players manage a virtual farm and often sneak in to steal items from their neighbor's farm are already very popular in China. The very agricultural tone of the game appeals to a number of Chinese, like youth from rural areas, their middle-aged parents, and retirees, who are still passionate about farming. But software designers must have a good understanding of the societal norms and the societal makeup of a country in order to come up with such meaningful social games. We know too little about the Chinese society to come up with innovative game designs that will appeal to Chinese customers. I'm not sure if the same HappyFarm will be at all popular among the Indian netizens who are mostly from the cities and probably do not care so much about a farming game.

Narayan Rao, Project Lead at Khillwar

V. LOOKING AHEAD

With both opportunities and risks ahead, Bhrigu Mehta and the management team of Khillwar needed to weigh carefully the pros and cons of the decision to enter the Chinese market. China was the promising land for mobile gaming developers given the considerable potential customer base that was present in the Chinese market and the absence of a strong domestic or international player. Khillwar could bring its very innovative work culture and its history of success in India and the U.S. to China. The stakes were high, but the risks were formidable. The immaturity of the Chinese mobile gaming market posed significant challenges for any mobile gaming operator, making it doubly risky for a non-Chinese IT company to step into the market. Bhrigu had to decide whether the payoffs would be higher than the risks. If Khillwar decided to enter the China mobile gaming market, the challenge would lie in how to fight against issues such as payment problems, language barriers, recruitment of talent, and tough competition from incumbents and other new entrants. There was also the issue of whether Khillwar should move into development of social games that were becoming increasingly popular in China. Was Khillwar game enough to shoulder these challenges?

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