

NEW STARTUP BUSINESS PLAN MOBILE GAME DEVELOPMENT BUSINESS IN THAILAND: NINTH IDEA

350112309-6 SATRULEE, PITSANU
GENERAL MANAGEMENT AND BUSINESS STRATEGY

C.E. PROF. KOJI AIBA
D.E. PROF. SEIICHI FUJITA D.E. PROF. MASA AKI HIRANO

Summary

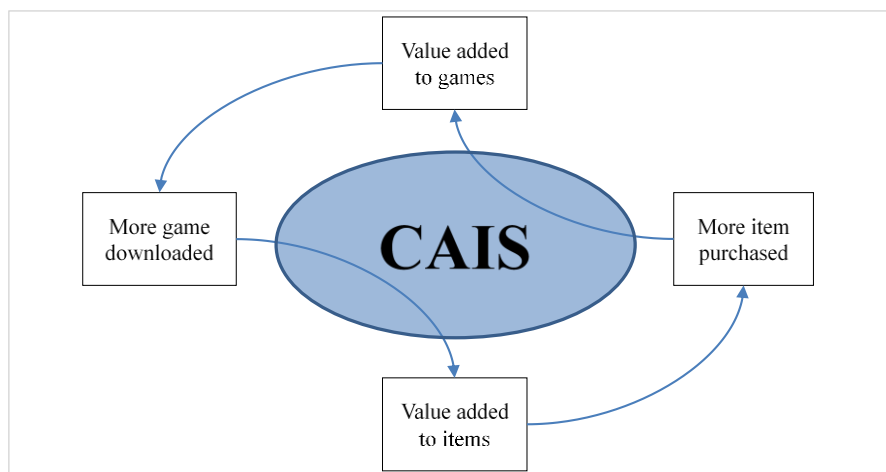
Since 1970, the game industry has been growing exponentially. The industry had over taken other industry with arcade game industry revenue of \$8 billion USD compared to \$4 billion USD of pop music industry and \$3 billion USD of Hollywood films in 1982. Growing alongside the traditional game platform is the game made for mobile phones. The current market size is estimated to be around \$34 billion USD only for mobile game industry. In the past, when there was no mobile game market, entry barrier of game development is very high due to difficulty in licensing and expensive development kit. Currently, low price developer licenses are common among mobile phone manufacturer. With huge market size and low entry barrier, the opportunity in mobile game industry is only increasing.

This thesis aims to understand the mobile game market and study the feasibility of entering that market. The author of this thesis plans to use the information from this thesis to startup his own company in Thailand with the name of “Ninth Idea”. In Thai language, the word “Ninth” is a homophone word that has two meaning. Another meaning is “To move forward”. Therefore, Ninth Idea’s pronunciation also means “The idea that moves forward”. This thesis will assess author’s current capability to develop a product (game for mobile devices). This includes the thorough evaluation of available financial support and human resources accessibility. Then, the analysis of the current trend of the industry will be done in order to evaluate the right course of action. It will

analyze the players gaming and purchasing behavior. The analysis will provide information on the desired platform of mobile devices and specification of games for further development. Finally, the thesis will make a forecast on Ninth Idea performance. Each milestone shall provide a specific goal and what to do for each objective achieved.

According to this study, three reasons for going into mobile gaming business are, low entry barrier, very large market and high purchasing power buyer. In the current stage of game industry, mobile game revenue heavily relies in In-App-Purchase (IAP), the process of digitally purchasing for content within an application. Consumers are now less likely to pay upfront for game application. From the survey, they are likely to pay for extra contents once downloaded a free game. And the focus for mobile game company is to expand its user base to increase the amount of paying customer, which relies on customer recommendation to their friends. Among multiple mobile platforms, Android currently holds the largest global market share follows by iOS. However, there are numerous limitations regarding developing application for Android such as fragmentation of device specification.

With all the information gathered, Ninth Idea proposes a system called CAIS to be market differentiator. CAIS (Cross Application Item System) is a model where it will let item purchased to be able to use in other games.



This will dramatically add the value to IAP for customer since it can be used within more than one game. CAIS will also generate network effect where customer will be persuaded to download another game to use the purchased item, which will expand our user base. However, CAIS

will only be successful with a large library of games in the system. Therefore, three phases of business plan are proposed to reach that goal.

The first phase is “Cumulative Phase” where the focus is to gather a large amount of money with few human resources by releasing low quality game. The main revenue will be advertisement which will be very aggressive to the customer. Hence, all product launch in this phase will be under a different name. Ninth Idea will move on to the next phase of “Startup Phase” when enough money for funding a bigger, higher quality product is collected.

In Startup Phase, Ninth Idea will develop and publish games as describe in this thesis. The first game will be a test product where Ninth Idea will learn the necessary process of producing its own game from scratch. After that, the second game with more mainstream content and higher quality will be launched. Ninth Idea will track both performances using period payback as a measurement to determine its next course of action in the future phase. The goal period payback will be 200% of six months as one period after the product is released. If the goal is not reached, the end of this phase will be the right time for Ninth Idea to exit the market. On the other hand, Ninth Idea will start implementing CAIS system to use with future product of Ninth Idea if the goal is reached. Even though, CAIS can be imitated by bigger company. It is hoped that existing players do not wish to do so due to the possibility of losing their existing revenue source.

Ninth Idea aims to survive in a market where it is constantly growing and changing. With low entry barrier, more and more competitors are entering the market. It is very difficult to determine everything beforehand. And some of the recommendations are only hypothesis by the author. If it were another industry, everything can be determined before launching a product. However, mobile game industry is different. It is a very fast moving industry. But it is also a very adaptable. By using feedback from users, Ninth Idea can modify the product and answer to customer’s needs faster than traditional brick and mortar product. This thesis provides most of the information that can be prepared before entering the market. But other information regarding the market must be tested along the way as business goes on. Ninth Idea will be adaptive and adjust its product alongside this ever-changing market. Its ultimate goal is to be recognized as a top game company from Thailand.

AY2013

MASTER OF BUSINESS ADMINISTRATION
GRADUATE SCHOOL OF COMMERCE
WASEDA UNIVERSITY

NEW STARTUP BUSINESS PLAN
MOBILE GAME DEVELOPMENT BUSINESS
IN THAILAND: NINTH IDEA

350112309-6 SATRULEE, PITSANU
GENERAL MANAGEMENT AND BUSINESS STRATEGY

C.E. PROF. KOJI AIBA
D.E. PROF. SEIICHI FUJITA D.E. PROF. MASAOKI HIRANO

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION	1
1.1. BACKGROUND.....	1
1.2. OBJECTIVE	1
1.3. METHODOLOGY	2
CHAPTER 2. GAME INDUSTRY BACKGROUND	3
2.1. HISTORY OF THE INDUSTRY	3
2.2. HISTORY OF MOBILE GAME INDUSTRY.....	4
2.3. CURRENT STATUS OF THE INDUSTRY	4
CHAPTER 3. RESOURCES ANALYSIS.....	6
3.1. FINANCIAL RESOURCE PROCUREMENT	6
3.1.1. <i>Government Financial Support</i>	6
3.1.2. <i>Crowd funding</i>	7
3.2. INTERNAL DEVELOPMENT CAPABILITY.....	9
3.2.1. <i>Management / Programming Partner</i>	10
3.2.2. <i>Art / Design Partner</i>	11
3.3. EXTERNAL HUMAN RESOURCES AVAILABILITY.....	11
CHAPTER 4. OPPORTUNITY ANALYSIS.....	13
4.1. MOBILE GAME INDUSTRY ANALYSIS	13
4.1.1. <i>Low entry barrier</i>	13
4.1.2. <i>Very large market</i>	15
4.1.3. <i>High purchasing power buyer</i>	17
4.2. CUSTOMER ANALYSIS.....	18
4.2.1. <i>Gaming Session Analysis</i>	19
4.2.2. <i>Product Introduction Analysis</i>	20
4.2.3. <i>Purchasing Behavior Analysis</i>	21
4.3. PLATFORM ANALYSIS.....	23
4.4. GAME GENRE ANALYSIS.....	25
CHAPTER 5. BUSINESS STRATEGY	28
5.1. SITUATION ANALYSIS	28
5.1.1. <i>Types of game company</i>	28
5.1.2. <i>Design rules for games</i>	29
5.1.3. <i>Type of players</i>	30
5.1.4. <i>Revenue channel</i>	31
5.2. VALUE PROPOSITION	33
5.3. GROWTH PLAN.....	35
5.3.1. <i>Cumulative Phase Strategy</i>	36
5.3.2. <i>Startup Phase Strategy</i>	38
5.3.3. <i>Future phase strategy</i>	39

CHAPTER 6. BUSINESS PLAN.....	40
6.1. MARKETING PLAN.....	40
6.1.1. <i>Product</i>	40
6.1.2. <i>Price</i>	46
6.1.3. <i>Place</i>	50
6.1.4. <i>Promotion</i>	50
6.2. OPERATION PLAN.....	55
6.2.1. <i>Cumulative Phase</i>	55
6.2.2. <i>Startup Phase</i>	56
6.3. RISK AND ASSUMPTIONS.....	57
CHAPTER 7. FINANCIAL PLAN.....	59
7.1. COST OF PRODUCTION.....	59
7.2. INCOME PROJECTION.....	60
7.3. CASH FLOW AND BREAK EVEN ANALYSIS.....	62
7.3.1. <i>Cumulative Phase Projection</i>	62
7.3.2. <i>Startup Phase Projection</i>	64
7.3.3. <i>Future Phase Projection</i>	66
CHAPTER 8. CONCLUSION.....	67
REFERENCES.....	69
APPENDIX 1: 15 DESIGN RULES FOR FREE-TO-PLAY GAMES.....	73
APPENDIX 2: GAME CONSUMER BEHAVIOR QUESTIONNAIRE.....	76

CHAPTER 1. INTRODUCTION

This research aims at the analysis of mobile game industry business opportunity. It will study the history of game industry from its origination through present. Then this research will examine the author's resource and opportunity in the market in order to create a viable business plan.

1.1. BACKGROUND

Since 1970, the game industry has been growing exponentially. The industry had over taken other industry with arcade game industry revenue of \$8 billion USD compared to \$4 billion USD of pop music industry and \$3 billion USD of Hollywood films in 1982. Growing alongside the traditional game platform is the game made for mobile phones. The current market size is estimated to be around \$34 billion USD only for mobile game industry. In the past, when there was no mobile game market, entry barrier of game development is very high due to difficulty in licensing and expensive development kit. Currently, low price developer licenses are common among mobile phone manufacturer. With huge market size and low entry barrier, the opportunity in mobile game industry is only increasing.

1.2. OBJECTIVE

This thesis aims to understand the mobile game market and study the feasibility of entering that market. The author of this thesis plans to use the information from this thesis to startup his own company in Thailand with the name of "Ninth Idea". In Thai language, the word "Ninth" is a homophone word that has two meaning. Another meaning is "To move forward". Therefore, Ninth Idea's pronunciation also means "The idea that moves forward". This thesis will assess author's current capability to develop a product (game for mobile devices). This includes the thorough evaluation of available financial support and human resources accessibility. Then, the analysis of the current trend of the industry will be done in order to evaluate the right course of action. It will analyze the players gaming and purchasing behavior. The analysis will provide information on the desired

platform of mobile devices and specification of games for further development. Finally, the thesis will make a forecast on Ninth Idea performance. Each milestone shall provide a specific goal and what to do for each objective achieved.

1.3. METHODOLOGY

Information obtained in this thesis came from three main sources. The first one was from direct interviews with CEOs from different game companies in Thailand. The target information from each CEOs was their experiences in starting up a game company in Thailand. Because the information on the issue available on the internet is very limited. The second source came from a questionnaire. The questionnaire aims to study game playing and purchasing behavior. It was distributed online to maximize the number of respondents. And the final source is literature review. Due to the nature of this industry being very young and digital, most of the information were acquired from the internet. Cautions were taken to validate and verify the source of information. Every internet sources in this thesis are from reliable websites with veteran authors of the industry.

On the final note of recommendations in thesis, some of the recommendations, especially product example, are only hypothesis by the author. If it were another industry, everything can be determined before launching a product. However, mobile game industry is different. It is a very fast moving industry. But it is also a very adaptable. Therefore, the product suggestions' hypothesis can be tested as the business goes on. By using feedback from users, Ninth Idea can modify the product and answer to customer's needs faster than traditional brick and mortar product.

CHAPTER 2. GAME INDUSTRY BACKGROUND

2.1. HISTORY OF THE INDUSTRY

The video game industry generally began in 1970s with the commercially available arcade video games.¹ Two notable titles are Pong released by Atari and Space Invaders released by Taito. The industry grew rapidly during the decades with arcade game industry revenue of \$8 billion USD compared to \$4 billion USD of pop music industry and \$3 billion USD of Hollywood films in 1982.² Home video game consoles also gaining popularity during the period with the advent of home version of Pong released in 1975 Christmas.³ Space Invaders also contribute a significant growth in the industry by increasing the Atari 2600 sales fourfold in 1978.⁴

After the intrusion of Nintendo Entertainment System (NES of Famicom) in 1983⁵, the home consoles industry is usually dominated by three major players. At the time of writing this document in 2012, there are three main consoles which are PlayStation 3, Xbox 360 and Wii. Two players from the pasts that still compete in the arena are Nintendo and Sony. Replacing SEGA is Microsoft, the latest player in home video game consoles manufacturer of the current generation. Similar to the home consoles, Nintendo also popularized mobile gaming with the release of Gameboy console. Even with the astounding growth of mobile gaming console in the past decades, mobile gaming for mobile platform has become a game changer of the industry in this era.

¹ Bellis, M, (2012), *Computer and Video Game History*, accessed December 2012, http://inventors.about.com/library/inventors/blcomputer_videogames.htm

² Everett M. Rogers & Judith K. Larsen (1984), *Silicon Valley fever: growth of high-technology culture*

³ Pong Story, *Pong in a Chip*, accessed December 2012, <http://www.pong-story.com/gi.htm>

⁴ Retro Gamer, (2007) *The Definitive Space Invaders*, accessed December 2012, http://www.nowgamer.com/features/894697/the_definitive_space_invaders_part_1.html

⁵ Consalvo, Mia (2006). *Console video games and global corporations: Creating a hybrid culture*, accessed January 2013, <http://web.archive.org/web/20080228191914/http://intl-nms.sagepub.com/cgi/reprint/8/1/117.pdf>

2.2. HISTORY OF MOBILE GAME INDUSTRY

Growing alongside the traditional game platform is the game made for mobile phones. Even though there were many preloaded games in the beginning of mobile phone era, the most famous and well-known classic game for mobile phone is “Snake”, by Nokia 6110 in 1997.⁶ People then started to use mobile phone to kill time when they have nothing to do. With this notion, technologies has emerged with this gaming usage in mind such as WAP (Wireless Application Protocol), J2ME (Java 2 Micro Edition) and BREW (Binary Runtime Environment for Wireless).

During the years, in order to have better gaming experience, the hardware of the mobile phone has to get better to cope with new technology. After Nokia 6110, there were Nokia 7110 (with the first WAP browser in 1999), Sony Ericsson t68i (with the first color screen in 2001) and Siemens M50 (with the first J2ME supported in 2002).⁶ Nokia saw the market in mobile gaming and introduced the first gaming-focused mobile phone called N-Gage. The product was unsuccessful due to many reasons including bad product design, high price tag and un-timing released (right before Nintendo DS and Sony Play Station Portable).⁷

In 2008, the mobile phone game platform was radically changed by the product called iPhone. The hardware was undoubtedly revolutionized. But the key is Apple’s iOS ecosystem that changed the industry. In the past, publishers pay developers to make game then publishers were the one to sell the game to customers. This ecosystem let customer buy the product directly from developers. It allowed developers to publish games easier and also let customers buy games easier.⁶

2.3. CURRENT STATUS OF THE INDUSTRY

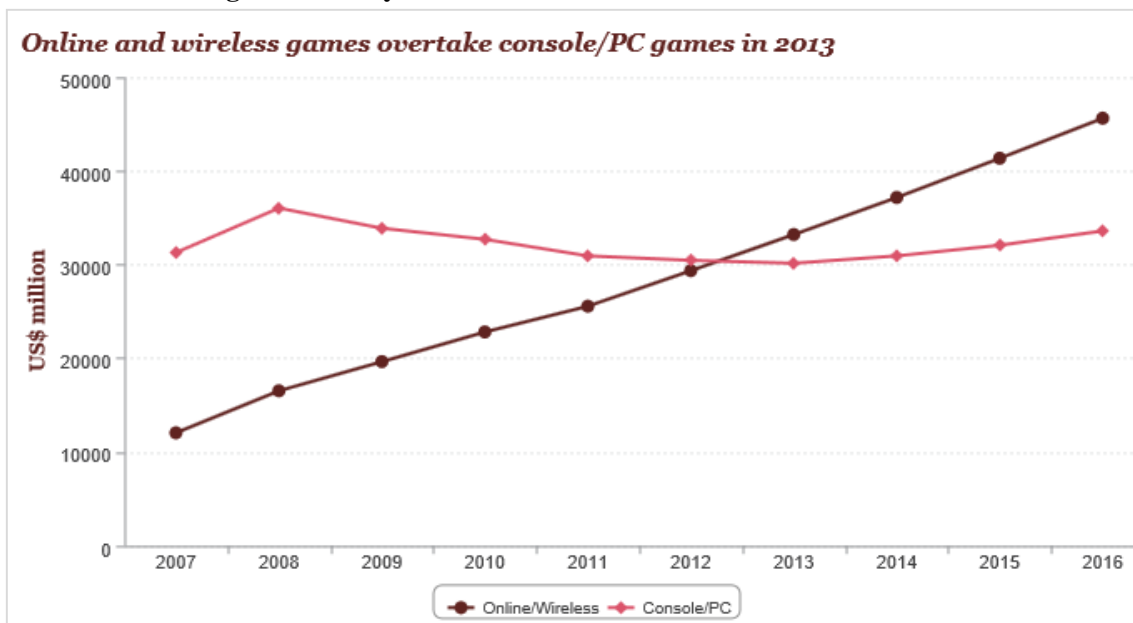
Gaming platform has transformed from Coin-operate Arcade to Console/PC and currently it is going towards Mobile/Online. Console gaming market has been declining since 2008 till present,

⁶ Alex, I, (2011), *History of mobile gaming*, accessed February 2013, http://www.phonearena.com/news/History-of-mobile-gaming_id17949

⁷ Blake Snow (2007), *The 10 Worst-Selling Handhelds of All Time*, accessed January 2013, <http://web.archive.org/web/20071012194600/http://gamepro.com/gamepro/domestic/games/features/125748.shtml>

2013.⁸ The cause seems to be the lack of new generation of consoles being released. The latest consoles offered by three major players, PlayStation 3, Wii and Xbox 360 were released in 2006, 2008, 2008 respectively. On the other hand, mobile gaming has been having a constant increased in market size thanks to the popularity of iOS which led to a competitive environment including the advent of Android and Windows Phone.

Exhibit 2-1: PwC game industry market size estimation



Source: PwC, *Online and wireless games overtake console/PC games in 2013*⁹

As can be seen from the figure above, the online/wireless global gaming market is expected to overtake the console/PC market in 2013. Many game companies that could not adapt to the changes are dying out, including one of the largest publisher company THQ. On the other hand, big name companies, such as Electronic Arts, handle the transformation by focusing more on mobile/online gaming platform.¹⁰ By looking at this projection, mobile game market can be considered attractive for both large size and small size developers.

⁸ Byford, S (2012), *Despite 'Black Ops II,' 'Halo 4,' and Wii U, video game sales continue to slip*, accessed February 2013, <http://www.theverge.com/2012/12/6/3737792/npd-video-game-sales-november-2012>

⁹ PwC Global (2013), *Online/wireless games overtake console/PC games in 2013*, accessed March 2013, <http://www.pwc.com/gx/en/global-entertainment-media-outlook/segment-insights/video-games.jhtml>

¹⁰ Krishnakanthan, K (2013), *Getting into your customers' heads: An interview with the COO of EA Labels*, accessed February 2013, https://www.mckinseyquarterly.com/Business_Technology/BT_Organization/Getting_into_your_custome rs_heads_An_interview_with_the_COO_of_Electronic_Arts_Labels_3043

CHAPTER 3. RESOURCES ANALYSIS

This chapter is the analysis of Ninth Idea's resources prior to commencing the startup. Due to game development is a software business, physical material procurement or manufacturing factory construction are not required. Only human, and financial, resources are the main concerns for this type of business. Therefore, this chapter provides information regarding Financial Resource Procurement, Internal Development Capability, and External Human Resources Availability.

3.1. FINANCIAL RESOURCE PROCUREMENT

Apart from the investments from partners and founders, which is rather limited in Ninth Idea's case, it has become easier to obtain financial support from both government and general public in this technology era. In Thailand, government supports are from SIPA, an organization with the goal of supporting software industry in Thailand.¹¹ Another emerging method of obtaining funds through general public is called crowd funding. The funding is done by raising many small amounts of money from a collective of people, usually via internet.¹²

3.1.1. Government Financial Support

SIPA (Software Industry Promotion Agency) is a public organization under the administrative of supervision of Ministry of Information and Communication Technology. Two main programs provided by SIPA that align with this business plan are "SME Loans for Thai software enterprise program" and "Investment support for SIPA and BOI program". The loan from the first program has below characteristic.¹³

1. SIPA will help securing the loan of 50,000 to 500,000 baht or USD 1,600 to USD 16,000

¹¹ SIPA, (2012), *SIPA Short-term road map*, accessed February 2013, <http://en.sipa.or.th/main.php?filename=index1>

¹² P, Tanya (2012), *What Is Crowdfunding And How Does It Benefit The Economy*, accessed February 2013, <http://www.forbes.com/sites/tanyaprive/2012/11/27/what-is-crowdfunding-and-how-does-it-benefit-the-economy/>

¹³ SIPA, (2012), *SME Loans for Thai software enterprise program*, accessed February 2013, <http://sme.sipa.or.th/>

(with the loan being less than 80% of total investment).

2. The term of the loan is at maximum of 7 years with no more than 1 year grace period (only interests need to be paid).
3. Loan interest rate is MLR+1 per year or MLR per year if the applicant has participated in SIPA's SME training course. (Minimum Lending Rate for SME in 2012 is at 7.25%) ¹⁴
4. The guarantor can be an individual, but he/she must have monthly income of at least 10% of the total loan.

Apart from the loan of the first program, "Investment support for SIPA and BOI program" gives software enterprise the following supports.¹⁵

1. Facilitate in starting up a software business in term of investment counseling.
2. Exemption of import duty of new machine
3. Exemption of corporate income tax for 8 years.
4. No limitation of amount for above exemptions.

By looking at the preliminary requirements, Ninth Idea is eligible for both program once it is registered as a company. However, the interest rate is quite high for Ninth Idea during the startup phase. Therefore, loan shall be considered for expansion of the company in later stages.

3.1.2. Crowd funding

Crowd funding is the term that was first cited in 2006¹⁶ as a mean to define the activity of raising small sum of money from a large amount of people. In other word, it is a platform where people fund thing they want to see happen. The process begins by having an entrepreneur pitch a project on a crowd funding platform with a specific funding goal. The project creator also has to set the "Reward" for each different level of contribution. For example, in a successfully funded project called "Double Fine Adventure", rewards to contributors are summarized as below table.

¹⁴ Bank of Thailand, (2012). *Interest Rates in Financial Market (2005-present)*, accessed February 2013, <http://www2.bot.or.th/statistics/BOTWEBSTAT.aspx?reportID=223&language=ENG>

¹⁵ SIPA, (2012). *Investment support for SIPA and BOI program*, accessed February 2013, http://www.sipa.or.th/ewt_news.php?nid=708&filename=index

¹⁶ Wordspy, (2008). *Crowdfunding*, accessed February 2013, <http://www.wordspy.com/words/crowdfunding.asp>

Exhibit 3-1: Example of rewards from “Double Fine Adventure” project

\$15 or more	Digital version of a finished game
\$30 or more	All of the above plus HD download of documentaries and digital game soundtracks
\$100 or more	All of the above plus special edition box contain above in physical format and special thanks in-game credit
\$250 or more	All of the above plus a poster signed by the whole team.
\$1000 or more	All of the above plus a mini portrait of “you” painted by the game’s artist.
\$10000 or more	All of the above plus lunch with the developers and a tour of the Double Fine offices.

Source: Kickstarter.com, Double Fine Productions¹⁷

Once the fund raising period ends, project creator will get the money with the amount depends on whether it reach the project’s funding goal and which crowd funding platform used. Two main models of payout are “all-or-nothing” and “keep-it-all”. For both types, if the target is reached, project creator gets the whole amount or any surplus if it exceeds the target. For all-or-nothing, if the funding is less than the goal, the creator gets nothing. Keep-it-all pays creator whatever the amount raised, whether reaching the funding goal or not. The pro of Keep-it-all model is apparently to receive the money even the target is not reach. However, all-or-nothing provides more confidence to the contributors. For example, if the project only raises a minimal amount of money, the contributors are basically throwing away the money.¹⁸ Below is the fee comparison of three famous crowd funding platforms.

Exhibit 3-2: Commission comparison between top three crowd funding platforms

Name	Funding model	Commission fee		Processing fee
		Reach goal	Do not reach goal	
Kickstarter	All-or-nothing	5%	X	3-5%
Indiegogo	Both	4%	9%	3%
RocketHub	Keep-it-all	4%	8%	4%

Source: Kickstarter.com, Double Fine Productions

¹⁷ Double Fine Production, (2012), accessed February 2013, <http://www.kickstarter.com/projects/doublefine/double-fine-adventure>

¹⁸ Conley, W, (2012). *How to compare crowdfunding websites*, accessed February 2013, http://www.ehow.com/how_6935134_compare-crowdfunding-websites.html

Kickstarter is the most famous crowd funding platform at the moment of writing this document. It features All-or-nothing model which attracts large amount of users with sense of security. RocketHub, on the other hand, cater the website more to the project initiators with Keep-it-all model. Indiegogo is a unique platform where it provides both type of funding model. Project initiator can decide which model to use for each project, All-or-nothing or Keep-it-all, with different rate of commission fee.

Due to crowd funding nature, the projects are exposed to a large amount of public eyes. This can be both pro and con for the business. With the vast exposure, the project can gauge whether there are enough market interest without finishing the product. However, potential competitors can see the project in details and the idea is in the risk of being stolen.¹⁹ Ninth Idea intends to use this method. Therefore, the solution to the issues is explained in operation plan section.

3.2. INTERNAL DEVELOPMENT CAPABILITY

One reason to develop a game in Thailand is low price but high quality Thai game developers. However, hiring process will be done once enough capital is accumulate, after the initial phase of start-up. Internal development capability or our startup team will consist of two people of four key departments of a general game company which are management, programming, art and design.

¹⁹ Gaebler Venture, (2012). *Crowd funding disadvantages*, accessed February 2013, <http://www.gaebler.com/Crowd-Funding-Disadvantages.htm>

3.2.1. Management / Programming Partner

- Author of this business plan
- Studying MBA at a well-known university in Tokyo
- Fluent in multiple languages including English, Thai and Japanese
- 7 years of gaming industry experience
- Responsible for tackling on various new technologies

Exhibit 3-3: Programmer's examples of previous published work

The image shows two screenshots of mobile application stores. The top screenshot is from the iTunes App Store, displaying the page for 'Tiny Little Bugs HD' by Subsonic. The app is priced at \$2.99 and is categorized as a game. The page includes a description, customer ratings, and iPad screenshots. The bottom screenshot is from BlackBerry World, showing the page for 'Knight Out' by Pitsanu Satriulee, priced at \$9.99. This page also includes a description, a QR code, and technical specifications.

Source: Author

3.2.2. Art / Design Partner

- 10 years of experience in leading a team of artists
- Graduated from top art academy, Concept Design Academy, LA
- Multiple well-known projects port-folio
- Ability to quickly adapt into new working tools and environment

Exhibit 3-4: Graphic designer's examples of previous published work



Source: Author's partner

3.3. EXTERNAL HUMAN RESOURCES AVAILABILITY

Apart from the core team members, many services are in needed to complete the project and sell the game such as sound design, game testing, accounting, financing and etc. Those services can be obtained by outsourcing. Throughout the connections of the author, most services from development side are acquired from years of industry experience. On the other hand, business side services are gathered from associates in MBA program.

Some examples of outsourcing connections are accounting and marketing. Since the company

is going to be based in Thailand, accounting firm in Thailand is required to do the accounting. AccProTax is an accounting company partly owned by one of Waseda MBA alumni.

Exhibit 3-5: AccProTax accounting firm website's main page



Source: AccProTax.net

On the other hand, since digital product can target the whole world, the marketer does not have to be of Thai origin. Indieviddy offers marketing services such as game description overview, press release to announce the game publicly, creating trailer and syndication of app to the press.

Exhibit 3-6: indieviddy accounting firm website's main page



Source: indieviddy.com

With abundant support from government sector and experiences and connections in the industry, Ninth Idea should have enough resources, in term of both financial and human capital, to start and expand a business of game development in Thailand.

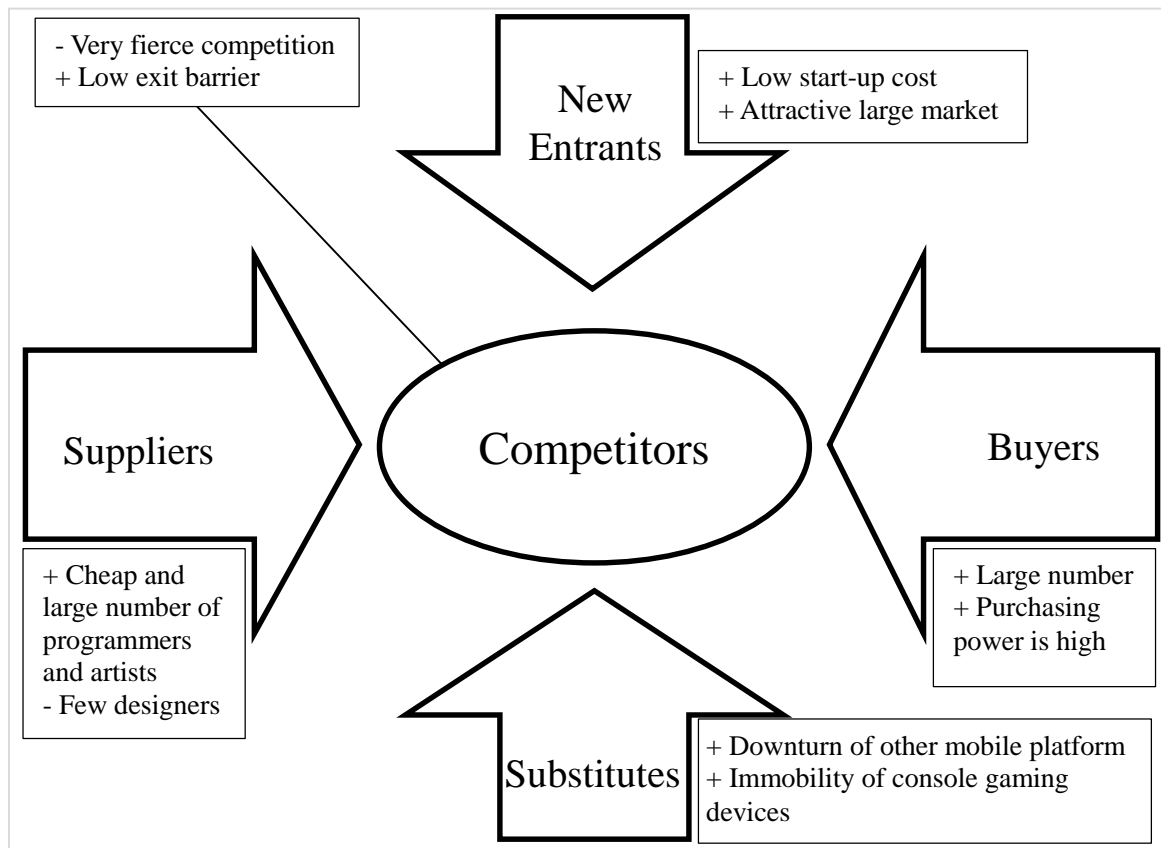
CHAPTER 4. OPPORTUNITY ANALYSIS

The mobile gaming market is growing larger due to high competition in mobile phone market. People getting more phones means more users will be on mobile and play games on their handset. However, larger market also attracts large amount of competitors. This chapter provides an analysis of the industry and directions that Ninth Idea should take according to the analysis.

4.1. MOBILE GAME INDUSTRY ANALYSIS

In order to better understand the business situation of the industry, Micheal Porters's five forces analysis of mobile gaming industry is shown below.

Exhibit 4-1: Five forces analysis of mobile gaming industry



Source: Author

4.1.1. Low entry barrier

In the past, when there was no mobile game market, entry barrier of game development is very

high due to difficult licensing and expensive development kit. Nintendo requires brick and mortar “lockable” working space and records of financial statement to prove that the company will be able to deliver the finished product.²⁰ The price of development kit, a device essential for game development, starts from USD 2,500 for Nintendo devices and from USD 2,000 for Playstation 3.²¹

To become an apple developer, only USD 99 is required. With one license, developer can publish on all iOS devices including iPhone, iPad and iPod touch.²² Currently, low price developer license is common among mobile phone manufacturer including Google’s Android (USD 25)²³, Blackberry (USD 0)²⁴ and Microsoft’s Windows phone (USD 99).²⁵ All licenses allow developers to publish their application on respective online application store for each operating system devices. There is also no special development kit required as developer can directly tested application on devices available on consumer market. Thus it reduces the start-up cost and lowers the entry barrier of mobile game development.

Apart from the required investment in machinery, salary of developers is also comparatively inexpensive. According to interviews with CEO of Thai game company, junior programmer and junior artist can be hired with a monthly salary of 15,000 Baht and 13,000 Baht (USD 480 and USD 420) respectively. Senior developer can cost around 20,000 Baht (USD 640) per month for both programmer and artist. A small mobile game application can be accomplished using only one artist and one programmer within three months. On the other hand, overall average salary for junior programmer in the market is at 20,000 (USD 640) Baht while average senior programmer salary can go as high as 50,000 Baht (USD 16,000).²⁶

²⁰ Nintendo of America Inc. (2013). *To become an Authorized Developer for Nintendo game platforms:*, accessed March 2013, <http://www.warioworld.com/apply/>

²¹ Blake Snow (2009), *Sony tries to boost PS3 development with dev kit price cut*, accessed March 2013, <http://arstechnica.com/gaming/2009/03/sony-announces-lower-cost-ps3-dev-tools/>

²² Apple (2013), *iOS developer program*, accessed March 2013, <https://developer.apple.com/programs/ios/>

²³ Google, Android (2013), *Get Started with Publishing*, accessed March 2013, <http://developer.android.com/distribute/googleplay/publish/register.html>

²⁴ Blackberry (2013), *Blackberry world developer*, accessed March 2013, <http://developer.blackberry.com/blackberryworld/>

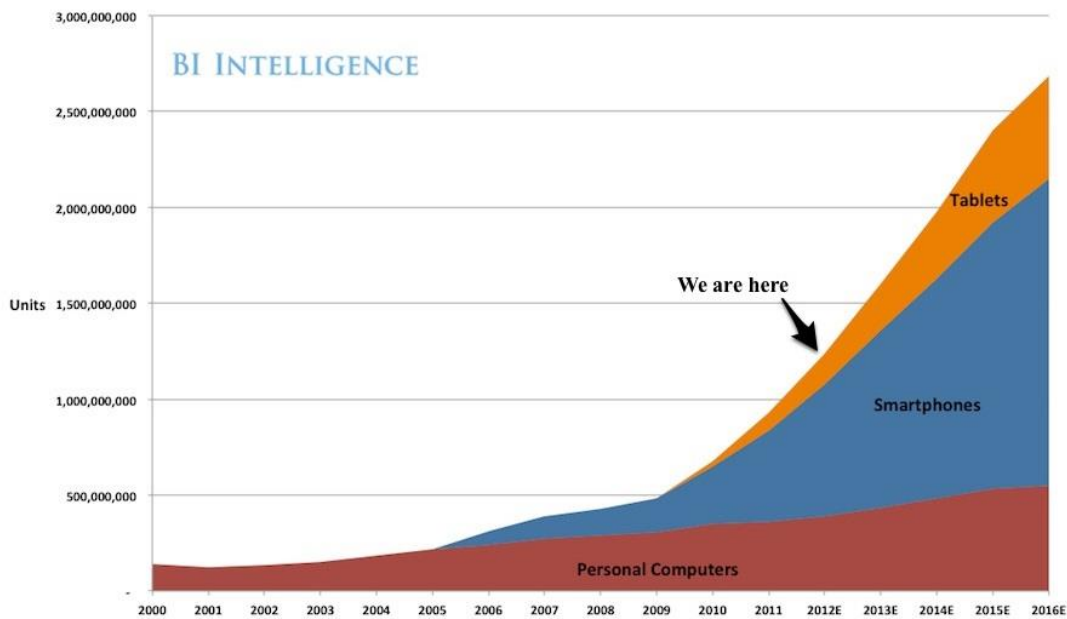
²⁵ Microsoft (2013), *Windows phone dev center*, accessed March 2013, [http://msdn.microsoft.com/library/windowsphone/help/jj206719\(v=vs.105\).aspx](http://msdn.microsoft.com/library/windowsphone/help/jj206719(v=vs.105).aspx)

²⁶ Adecco (2012), *Adecco Thailand Salary Guide 2013*, accessed March 2013, <http://www.adecco.co.th/Adecco-Thailand-SalaryGuide-2013/Page-32.html>

4.1.2. Very large market

Mobile phone has become part of the current generation. Feature phone, with a closed development environment, used to be the standard phone in the market. Recently, smartphone with a unified operating system is rising in popularity with rapid penetration. In United States, the biggest market, smartphone has outnumbered feature phone for the first time in 2012.²⁷

Exhibit 4-2: Global Internet Device Sales



Source: Blodget, H (2012)²⁸

Total number of smartphone around the world is also expected to reach 1 billion by the end of 2012.²⁹ From 2011 to 2016, smartphone shipments are forecasted to grow at 18.6 % of CAGR (Compound Annual Growth Rate).³⁰ Even in developing country, such as Thailand, almost half of the mobile phone in the country consisted of smartphones. The growth is due to lower price of the entry-level smartphone.³¹

²⁷ Wagstaff, K. (2012), *Smartphone outnumbered feature phones in U.S.*, accessed March 2013, <http://techland.time.com/2012/03/01/smartphones-outnumber-feature-phones-in-u-s-for-first-time/>

²⁸ Cocotas, A, Blodget, H (2012), *THE FUTURE OF MOBILE*, accessed May 2013, <http://www.businessinsider.com/the-future-of-mobile-deck-2012-3?op=1>

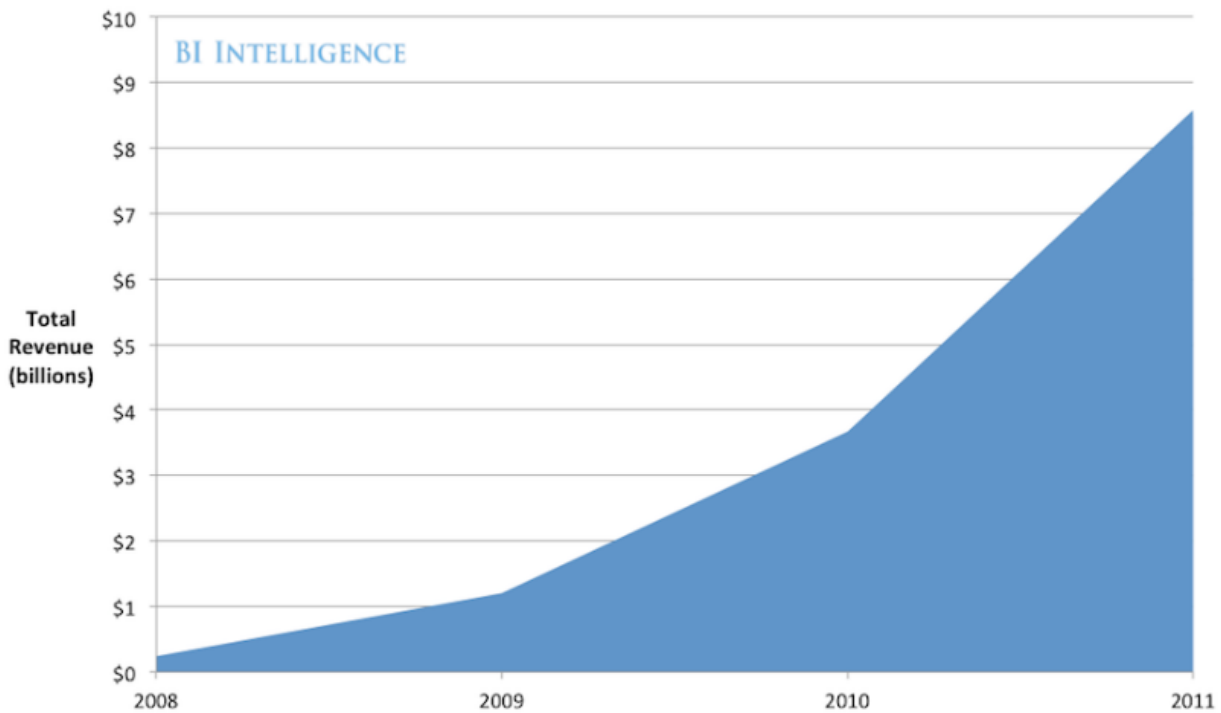
²⁹ Luden, I (2012). *The No. Of Smartphones In Use Passed 1 Billion*, accessed March 2013, <http://techcrunch.com/2012/10/16/mobile-milestone-the-number-of-smartphones-in-use-passed-1-billion-in-q3-says-strategy-analytics/>

³⁰ Rockvill, MD (2012), *Market Research Projects Smartphone Market Growth at 19% CAGR*, accessed May 2013, <http://www.marketresearch.com/IDC-v2477/Worldwide-Smartphone-Forecast-6881762/>

³¹ Bangkokpost (2012). *Smartphones to make up half Thai market this year*, accessed March 2013, <http://www.bangkokpost.com/tech/gadget/329704/smartphones-to-make-up-half-thai-market-this-year>

Mobile Application or simply called “App” is also what makes smartphone popular. App allows software developer to publish their software on mobile device with ease, similar to PC. The difference from PC is distribution method. In the past PC required publisher to manufacture CDs or DVDs in order to distribute a software. But for mobile app, it can be done online on respective operating system’s store.

Exhibit 4-3: Past global mobile app revenue



Source: Cocotas, A (2012)³²

As can be seen from the figure above, mobile app revenue climb from hundred of millions to more than 8 billion in total revenue in only three years. According to PwC, world mobile game industry market size is estimated to be around 34 billion USD in 2014.³³ Therefore, sales of smartphone and sales of mobile app are correlated. It reinforce one another. More smartphone sales means larger market for Ninth Idea as an app (game) developer. And more mobile app in the ecosystem can attract customers to the platform.

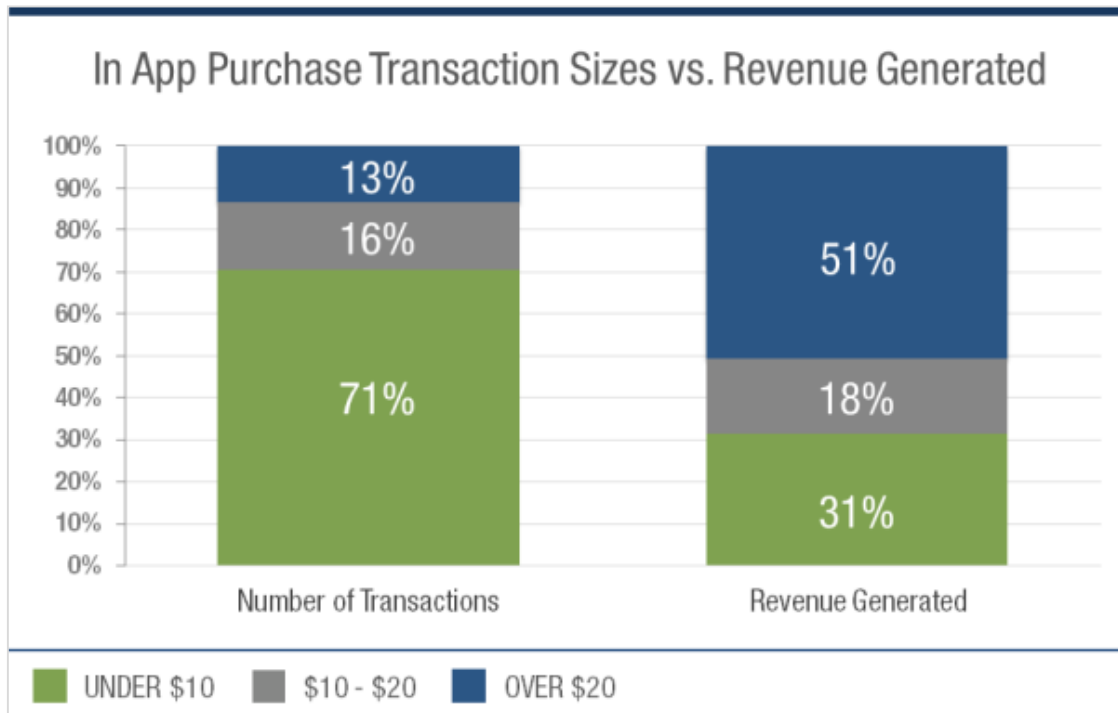
³² Cocotas, A, Blodget, H (2012), *THE FUTURE OF MOBILE*, accessed May 2013, <http://www.businessinsider.com/the-future-of-mobile-deck-2012-3?op=1>

³³ PwC Global (2013), *Online/wireless games overtake console/PC games in 2013*, accessed March 2013, <http://www.pwc.com/gx/en/global-entertainment-media-outlook/segment-insights/video-games.jhtml>

4.1.3. High purchasing power buyer

Even though the market size is huge for smartphone market, it can be argued that only small percentage of smartphone users actually make payment for gaming purpose. According to Flurry, one of the biggest mobile analytics and monetization platforms, only 3% of the consumers spend money in free-to-play games. However, among the 3%, average spending is at USD 14.³⁴

Exhibit 4-4: Number of transaction VS Generated Revenue in U.S.



Source: Flurry Analytics³⁴

According to the study, customers that decided to make a purchase are more committed to the game experience. Thus, the customers tend to pay large amount of money once they are certain that their investment is worth the experience in return.³⁵ Another aspect that helps boost the revenue of mobile gaming is the pricing flexibility of digital content. Multiple price point in one game can capture both low spending audiences and high spending audiences at the same time.³⁶

³⁴ Flurry (2013). *Consumers Spend Average of \$14 per Transaction in iOS and Android Freemium Games*, accessed March 2013, <http://blog.flurry.com/bid/67748/Consumers-Spend-Average-of-14-per-Transaction-in-iOS-and-Android-Freemium-Games>

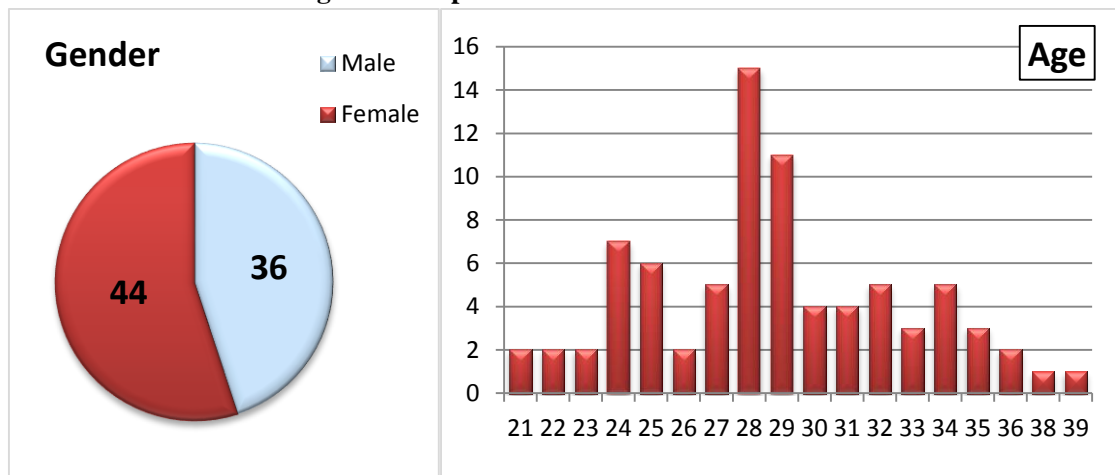
³⁵ Andrew, K (2011). *Average spend per smartphone IAP transaction is \$14 reckons Flurry*, accessed March 2013, <http://www.pocketgamer.biz/r/PG.Biz/Flurry/news.asp?c=31810>

³⁶ Llopis, N (2012). *One Price Does Not Fit All*, accessed March 2013, <http://gamesfromwithin.com/one-price-does-not-fit-all>

4.2. CUSTOMER ANALYSIS

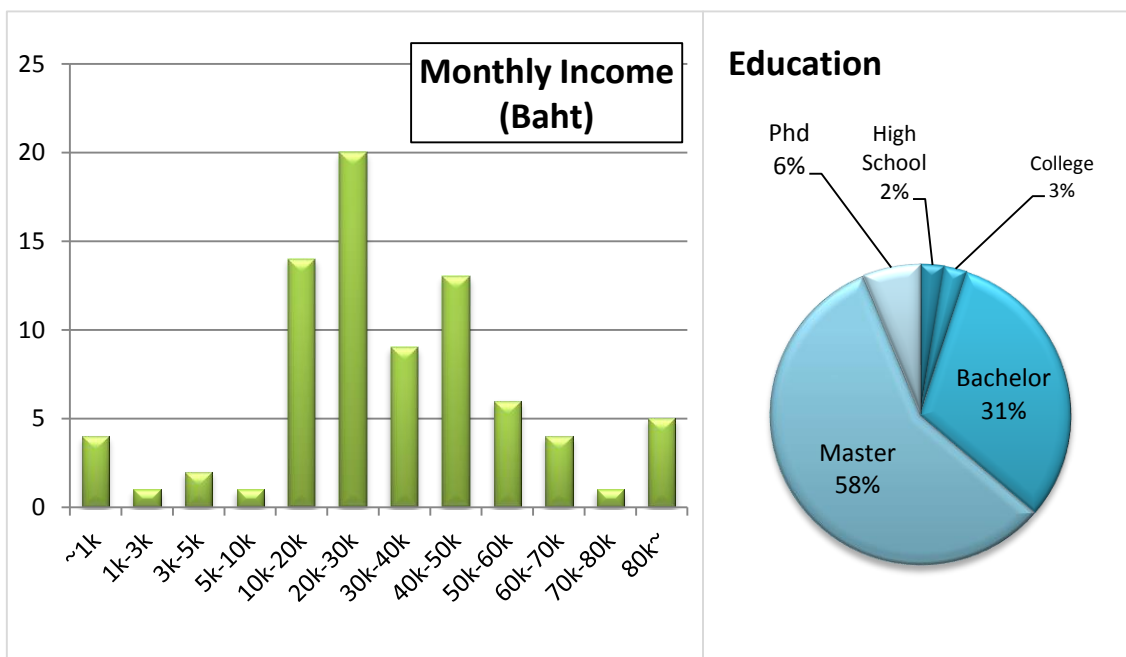
In order to design a game that matched customer needs, the following survey has been launched. The first product of Ninth Idea is related to Makruk, a Thai version of a chess game. Therefore, the sample is biased with majority of respondents as Thai adults as target audiences. The questionnaire received 80 responses with a mixture of gender, age and education. General demographic of the respondents are as below.

Exhibit 4-5: Gender and Age of 80 respondents



Source: Author's survey

Exhibit 4-6: Monthly income and Education of 80 respondents

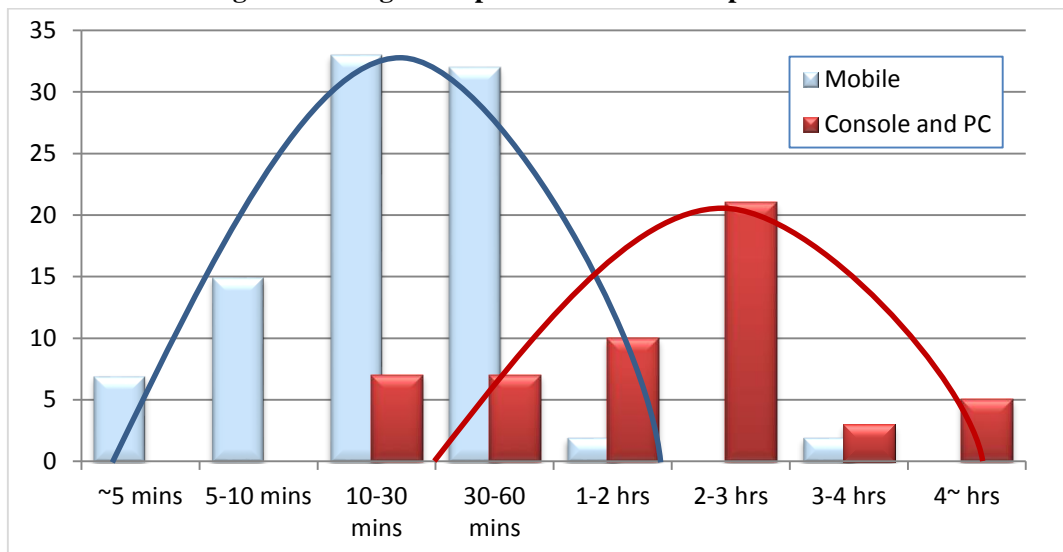


Source: Author's survey

4.2.1. Gaming Session Analysis

Among the mobile game player respondents, around half of them are playing game on other platform such as console and computer. The major different usage between mobile platform and other platform is the length of gaming session. Mobile gaming session is mostly at 10-30 minutes while other platform is at 1-3 hours.

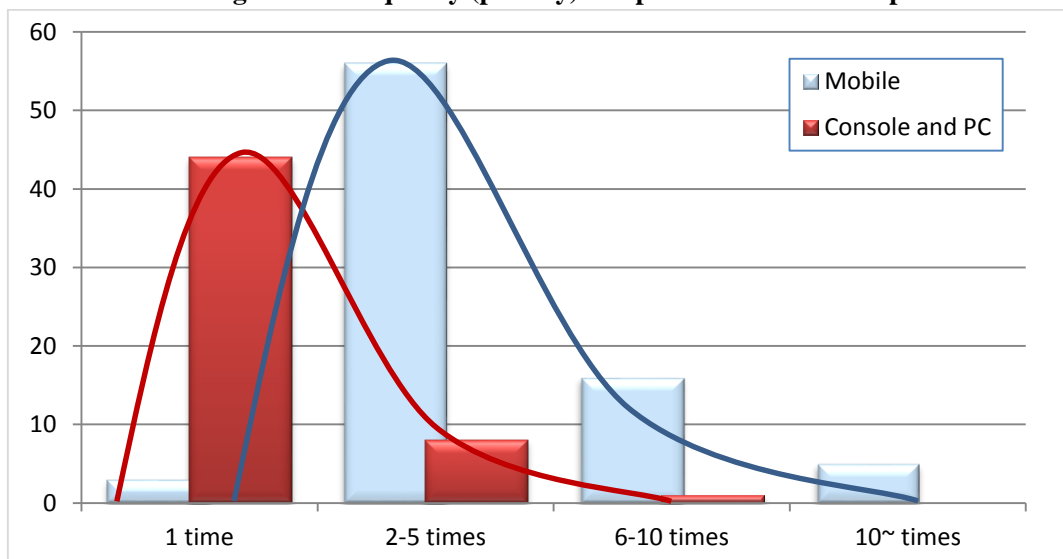
Exhibit 4-7: Gaming session length comparison between two platform



Source: Author's survey

Even though the session is shorter on mobile, frequency of playing per day of mobile platform is higher (2-5 times per day) than other platform (once a day).

Exhibit 4-8: Gaming session frequency (per day) comparison between two platform

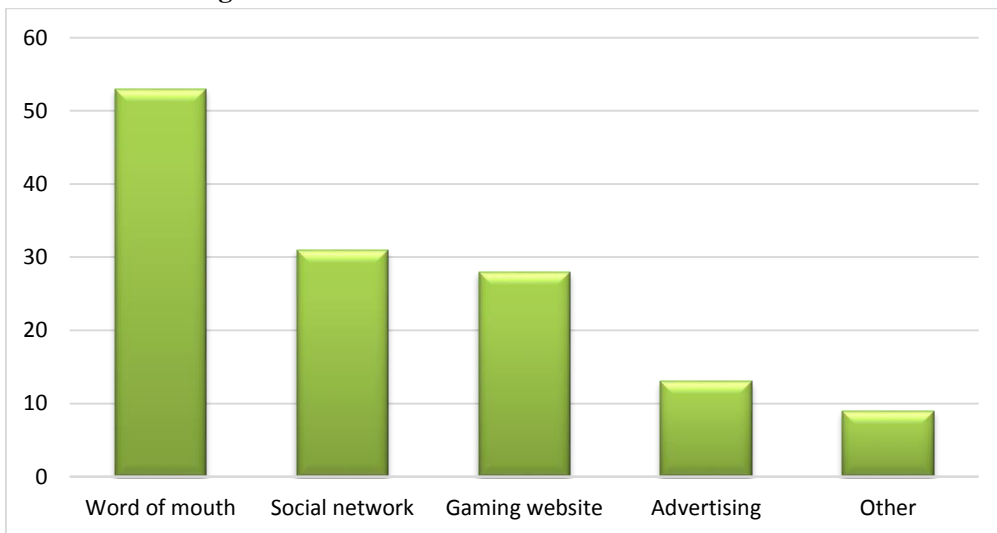


Source: Author's survey

4.2.2. Product Introduction Analysis

There are many ways to introduce a game for mobile device to customers. Customers most likely get to know new games from a recommendation from friends. Among recommendations, there are usually two types. One is recommendation due to the game being good and another is recommendation for incentives in the game via social network.³⁷ According to the survey, 53 out of 80 (66.25%) got introduced new game from friend word of mouth recommendation. On the other hand, 31 out of 80 (38.75%) play new games from social network platform's recommendation.

Exhibit 4-9: New game introduction channel Source



Source: Author's survey

Other marketing channel include being reviewed on gaming website and advertisement. Traditional advertising only effects 13 out of 80 (16.25%) of the respondents while gaming websites still have influences over respondents at 28 out of 80 (35%). Another notable information is within being featured on App store of each platform. 8 out of 9 respondents that answer "Other" stated that other channels include "App store front page" and "App store recommendation".

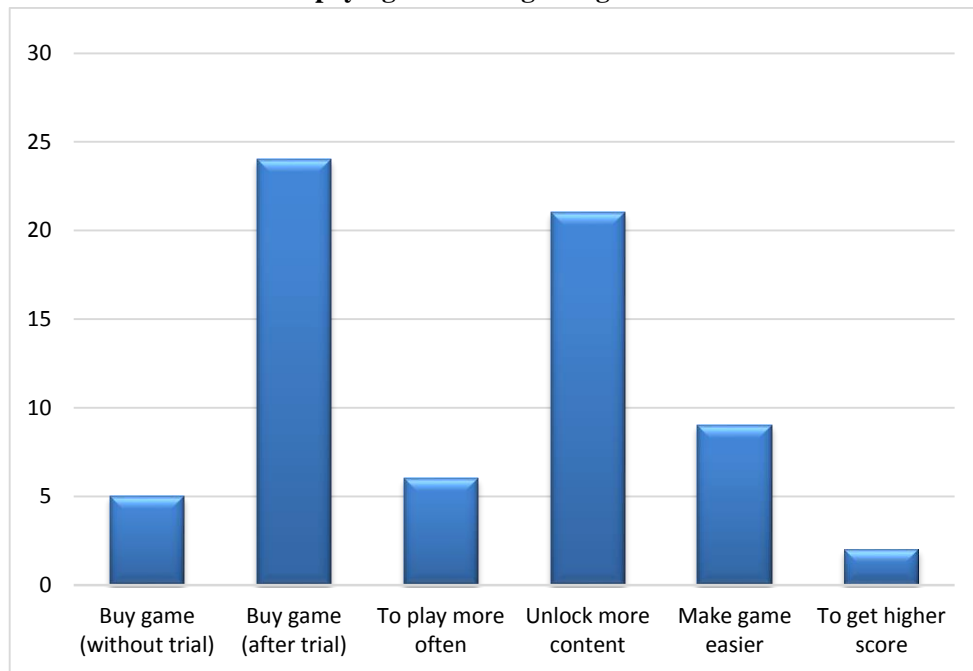
From this information, we can conclude that consumers largely rely on information from their associates when making a decision to play certain games. Therefore, the game should provide incentives to players when their friends accept the invitation to play the recommended game.

³⁷ Oracle cloud (2012), *Using Social Gaming to Drive Engagement*, accessed March 2013, <http://www.oracle.com/us/products/social-gaming-for-engagement-1841595.pdf>

4.2.3. Purchasing Behavior Analysis

According to the survey, 93.75% of mobile phone users mostly expect to get their hands on application for free. Only 6.25% of the respondents pays for game before they have a chance to try it out. They tend to pay after they sample the game for free first. Once satisfied with the gameplay, they are willing to pay more for extra contents. Even so, the paying customer of free-to-play game is expected to be at 3% out of 93.75%, according to a study in previous section of purchasing power.

Exhibit 4-10: Reason for paying in mobile gaming



Source: Author's survey

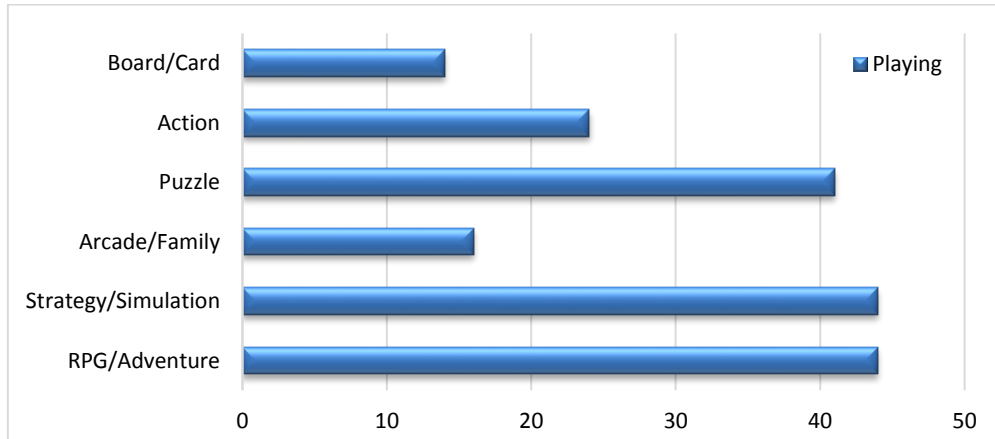
As can be seen from the figure, 56.25% pays for extra contents after tried out the game (include buy game after trial and unlock more content). Extra content seems to be the most comfortable reason for customers to make a decision to pay. Therefore, when designing a game, it is important not to release the whole content of the game for free.

Apart from the mentioned reason, some respondents answered “to collect cute/special item that only available with real money”. It shows that collectible goods are also viable with digital contents. Example of collectible items are card game with different character, adventure game with multiple types of monsters or role playing game with unique equipment.

The survey also includes questions regarding game genre. The first question asked was “What

game genre are you playing on mobile device?”. Below is the figure showing total number of responses from each game genre.

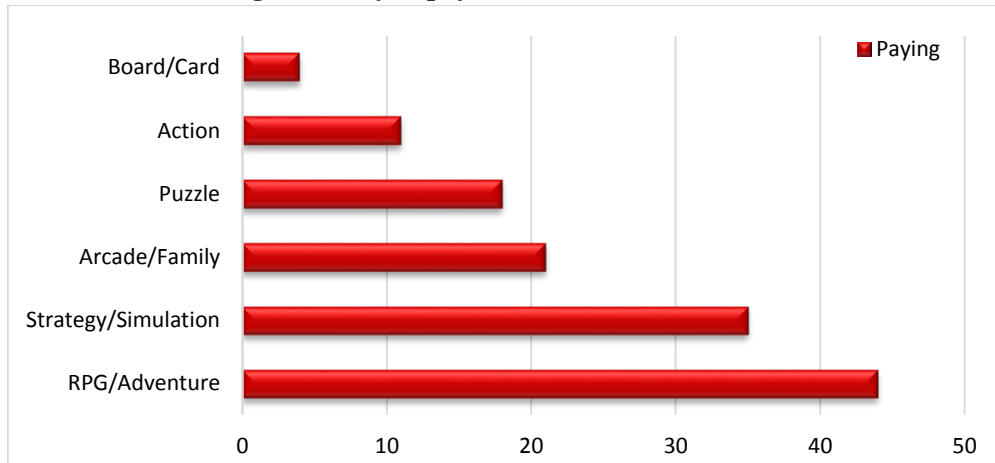
Exhibit 4-11: Game genre played on mobile device



Source: Author’s survey

As can be seen, the top three most played genre are Puzzle, Strategy/Simulation and RPG/Adventure. However, when the respondents were asked with “What game genre will you likely to pay with real money?”, the top three genre has changed into below.

Exhibit 4-12: Game genre likely to pay on mobile device



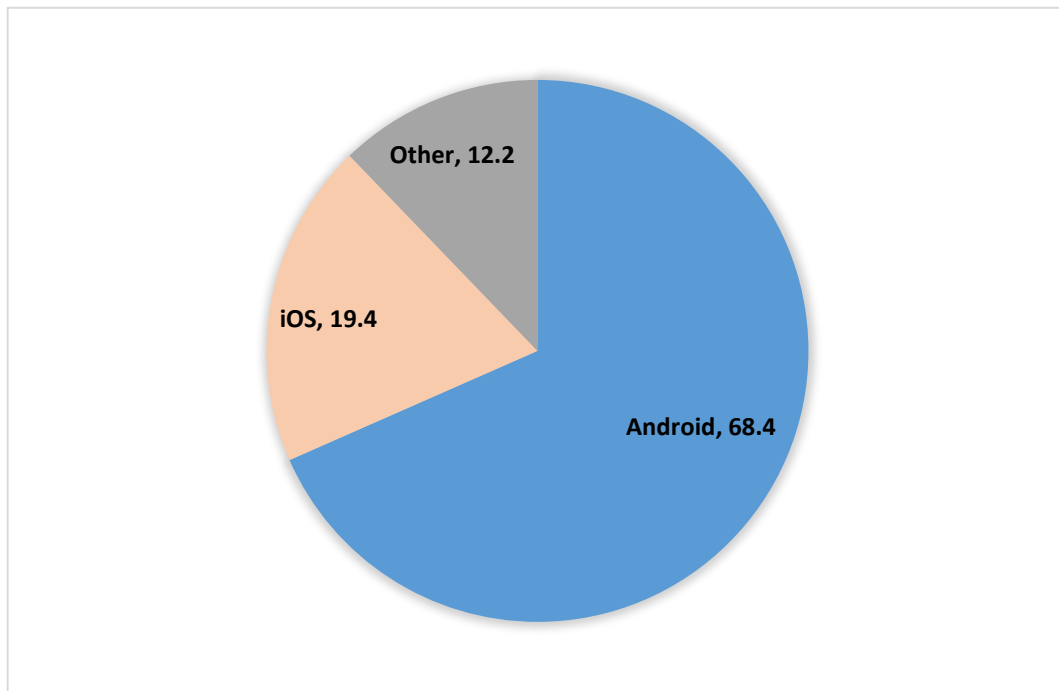
Source: Author’s survey

Even though puzzle genre was one of the most played game genre, respondents are less likely to pay real money in puzzle genre. Top two are still Strategy/Simulation and RPG/Adventure. Respondents have given out the reason for paying to top two genre as they are more emotionally invested into those genres. It is natural for the game genre with storyline to be more immersive than puzzle genre.

4.3. PLATFORM ANALYSIS

Currently, four lead smartphone operating system in the market include Android, iOS, Windows Phone and Blackberry. The current global leader of the market is Android by Google with 68.4% market share. The second place is iOS with 19.4% market share. Windows Phone and Blackberry combined market share is less than 15%.

Exhibit 4-13: Global smartphone operating system market share



Source: Koetsier, J (2012)³⁸

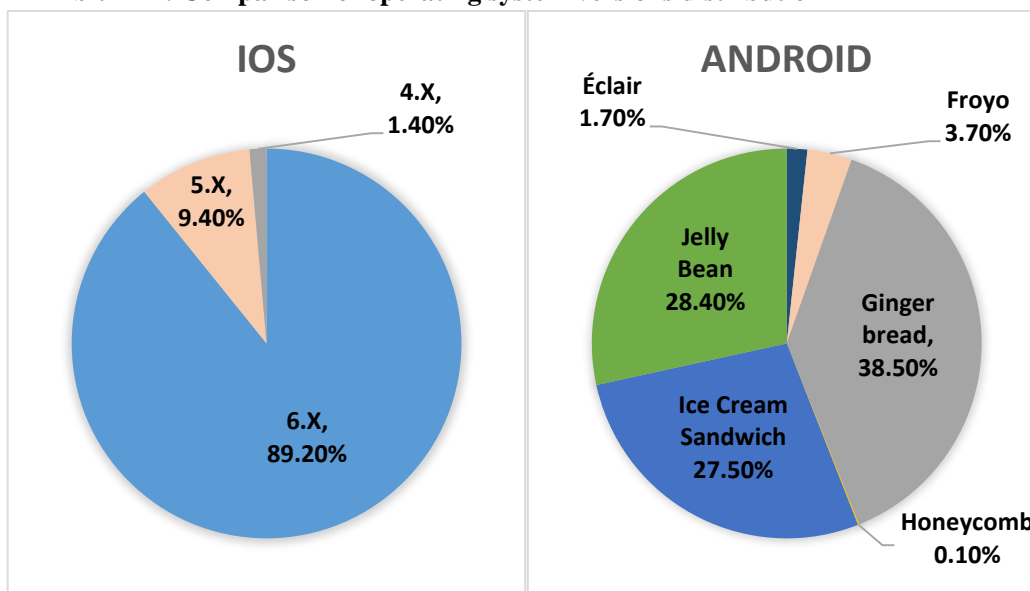
The differences between each leaders is surprising when compare to the smartphone market share in U.S. where Android and iOS market share are both at around 45-48%.³⁹ The reason behind this difference is due to an openness of Android OS. While iOS devices are being produced only by Apple, Android devices are being made by a different number of manufacturers including Samsung, Sony, HTC, LG and many more. This leads to product customization by each manufacturers to suits the need of each market around the world.

³⁸ Koetsier, J (2012), *Android captured almost 70% global smartphone market share in 2012, Apple just under 20%*, accessed May 2013, <http://venturebeat.com/2013/01/28/android-captured-almost-70-global-smartphone-market-share-in-2012-apple-just-under-20/>

³⁹ Lomas, N (2013), *Windows 8 Wins 7.4% Share Of Global Tablet OS Market In Q1 — “Niche” Portion Still Beats Windows Phone’s Smartphone Share*, accessed May 2013, <http://techcrunch.com/2013/04/25/strategy-analytics-q1-tablet-stats/>

However, customizable operating system also cause fragmentation in characteristics of mobile devices. Major characteristics that affect application development are version of operating system (OS) and screen size.

Exhibit 4-14: Comparison of operating system versions distribution



Source: Smith, D (2013)⁴⁰, Google Inc. (2013)⁴¹

From figure above, it can be seen that iOS has a lot lower fragmentation in term of OS version distribution than Android. Besides OS version, iOS smartphones also have less types of screen resolution. Smartphone using iOS, or iPhone, currently only has three resolution type. On the other hand, Android smartphone has eight resolution types, which counting only the common type of screen resolution.⁴²

Even with larger market, Android might not be a good target for small budget app development. Developing and testing app on multiple type of device versions and screen resolution require large amount of resource such as recreating graphic asset for different resolutions. Therefore, Ninth Idea should develop the game for iOS as the first platform. Once there are more resource, it is vital to expand the market to other platform such as Android and others.

⁴⁰ Smith, D (2013), *iOS Version Stats*, accessed May 2013, <http://david-smith.org/iosversionstats/>

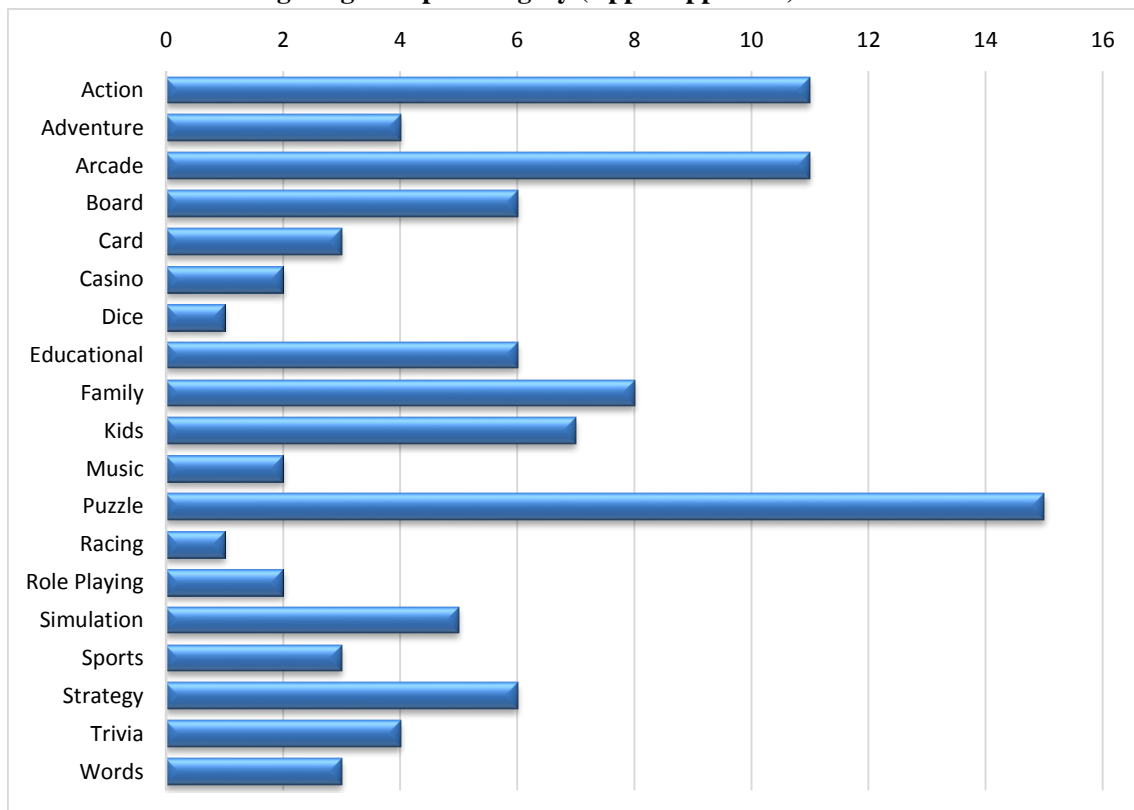
⁴¹ Google, Inc. (2013), *Developer Dashboard*, accessed May 2013, <http://developer.android.com/about/dashboards/index.html>

⁴² Androidguys (2013), *A brief history of Android smartphone display resolutions*, accessed May 2013, <http://www.androidguys.com/2013/01/25/android-mobile-display-resolutions/>

4.4. GAME GENRE ANALYSIS

Similar to other entertainment platforms such as music or movie, gaming also has many genres. Each genres provide different profitability due to different cost of production and amount of revenue. Estimated development cost information was gathered from interviews with CEO of multiple game companies in Thailand. And estimated revenue data comes from top 100 grossing list of games on Apple's store.

Exhibit 4-15: Percentage of games per category (Apple App Store)

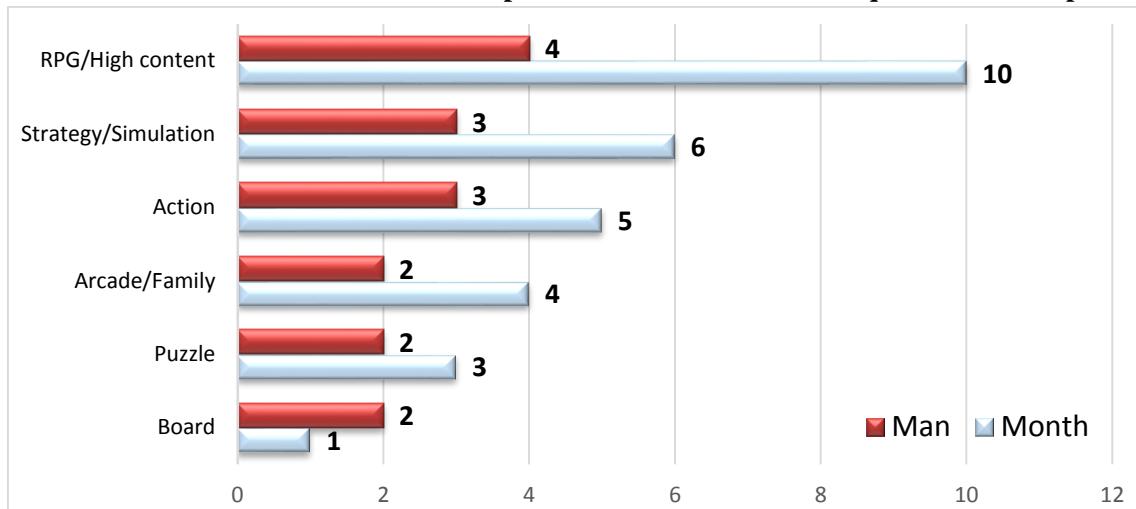


Source: Hollington, J (2010)⁴³

In Apple App Store, there are 19 genre within game category. As can be seen from above, Puzzle is the most crowded market with 15% of the whole game application. Therefore, competition can be avoided by going after small market genre such as Role Playing or Music game. However, apart from the competitiveness, cost of development and rate of returns should be put into consideration before deciding which genre is the best for investment.

⁴³ Hollington, J (2010), *Report: Games are 58% of App Store, puzzles top genre*, accessed March 2013, <http://www.ilounge.com/index.php/news/comments/report-games-are-58-of-app-store-puzzles-top-genre/>

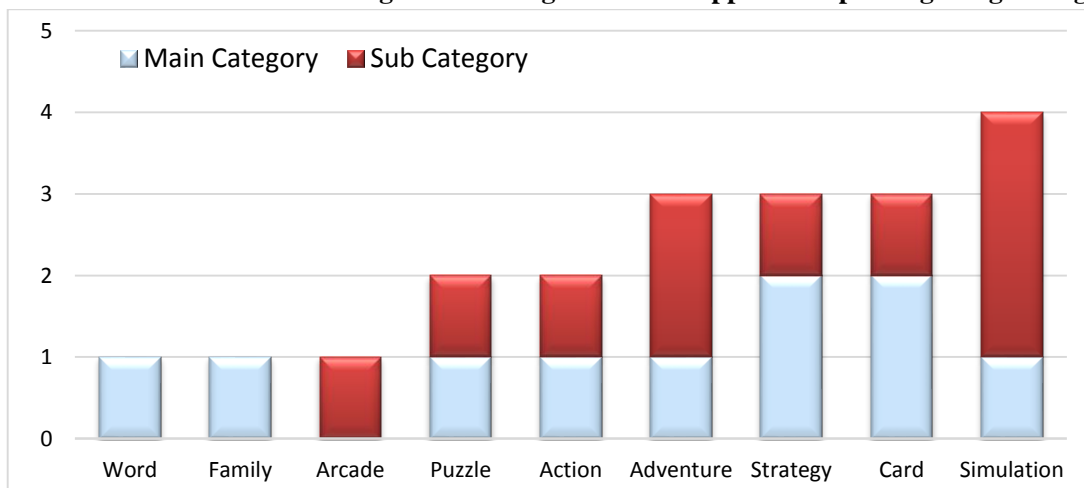
Exhibit 4-16: Minimum number of developers and number of months required for development



Source: Author's interview

According to the interviewees, puzzle game cost the least. This is due to simplicity in nature of the genre comparing to other genre, in term of both programming and graphic. On the other hand, Role Playing games required the most man power to produce. However, interviewees states that non-role playing genre with high amount of contents can cost almost the same in production. Best examples would be playable collectible card games. Two genre that players are will to pay most according to survey are Role Playing games and Strategy games. However, none of the Role Playing games is in the list of 10 highest grossing list in Apple App Store.

Exhibit 4-17: Total number of game in each genre in iOS app store top 10 highest grossing



Source: AppAnnie Analytics⁴⁴

⁴⁴ AppAnnie (2013), *App Annie Appstore Data United States*, accessed March 2013, <http://www.appannie.com/top/iphone/united-states/games/?date=2013-02-04#>

Among top four categories, three are types of game that usually incorporate storyline to generate immersion. On the other hand, card games on the top chart are generally form of gambling games. Games with storyline are considered high content. And gambling games attraction is the ability to compete against other player online, with high reliability. Thus, all four categories requires high cost in development. Considering start up development capability, with one programmer and one artist, three viable option are Arcade/Family, Puzzle and Board game categories. Amidst three categories, Puzzle is most likely to provide highest return, according to the top grossing chart. Other genre of the game can be explored later one Ninth Idea is more capable.

From the findings in this chapter, it can be concluded that mobile application market can be attractive for game development due to Low entry barrier, Very large market size, and High purchasing power buyer. According to the survey, game should be design with short session gameplay to match the nature of mobile device. The game should also give incentives when player come back to play the game and successfully recommend the game to friends. During startup phase, Ninth Idea should develop Puzzle games on iOS devices due to highest probability of return on minimal capability. Once Ninth Idea generate enough revenue to expand the development team, other genres and platforms will also be the target of the company. A detailed plan on what should be done on each phase will be explained in the next chapter.

CHAPTER 5. BUSINESS STRATEGY

Mobile game market is a large and constantly growing market with many potentials. This business proposal takes advantage of the low price but high quality Thai game developers and low entry barrier of mobile game development. The first section analyses the current situation of the industry and existing guidelines based on industry veterans. The second section will use the data to differentiate Ninth Idea from its competitors in the market with policies and business model. Then each phase of strategy that will be implemented to fulfill the business model is explained afterward.

5.1. SITUATION ANALYSIS

5.1.1. Types of game company

In game industry, game companies can be divided into two groups of “Product” developer or “Service” provider. When the game count as a product, it means only to publish and then sell a complete game. On the other hand, game as a service means to have a revenue by keeping player coming back to the game for more. The ultimate goal of Ninth Idea is to sell game as a service.

Exhibit 5-1: Game as a Product VS Game as a Service

Game as a product	Game as a Service
<ul style="list-style-type: none">• “Fire and forget” games that are complete when they launch• No ongoing relationship with gamer• Marketing: Big launch; Majority of sales in first month (as one time purchase)• Finance: Require sufficient resources to develop 100% of the game and market it before seeing any revenue	<ul style="list-style-type: none">• Ongoing game• Key success measure is not units sold but from active users and conversion rates.• Marketing: Focus on acquiring users and converting them to paying customers• Finance: Can generate revenue on an unfinished game but require substantial marketing cost

Source: Lovell, N (2010)⁴⁵

⁴⁵ Lovell, N (2010). *How to Publish a Game*. Gamesbrief. London.

Ninth Idea’s strategy consist of three phases, i.e. cumulative phase, startup phase and future phase. Cumulative phase focuses on selling games as a product (a cheap one). Once the company has built up enough resources, the next phase is startup phase. Startup phase is considered as a transition phase between being a product developer and a service provider. And future phase is the phase where Ninth Idea has become a full service provider with strong brand recognition.

5.1.2. Design rules for games

In creating the game as a viable service, three distinct stages of the product design are Acquisition, Retention and Monetization (ARM). According to Lovell, a strategic and marketing consultant veteran in game industry, there are 15 rules of “Design Rules for Free-to-Play Games” that need to be adhered to achieve the ARM.⁴⁶ The summary of the rules is explained below. Even though the content of the rules is quite extensive, it is vital to product design process. Therefore, a detailed explanation of the rules can be found at the end of the document in Appendix section.

Exhibit 5-2: 15 Design Rules for Free-to-Play Games (full explanation in appendix section)

Rule 1: Make it Fun	Rule 9: Make it possible to spend \$100
Rule 2: The Starbucks test (Fun in first 5 mins)	Rule 10: Have pizzazz, not polish (Looks good)
Rule 3: Come for a minute, stay for an hour	Rule 11: Kill the tutorial
Rule 4: Complexity in layers	Rule 12: I must not fail (No Game over)
Rule 5: The importance of never ending	Rule 13: Sell emotion, not content
Rule 6: Be generous	Rule 14: Experiment and learn
Rule 7: Be Free-to-Play forever	Rule 15: Game development never ends
Rule 8: The no-brainer first dollar	

Source: Lovell, N (2012)

The game has to be fun, and be able to attract players within the first 5 minutes session. It should consist of a small-loop gameplay. So that the player can feel they can achieve something in short amount of time. These small-loops have to be nested in a core-loop where users have to come back for more. A game should also be compelling playing for much longer sessions. This creates a higher possibility for players to spend money in the game. Different players define fun in different

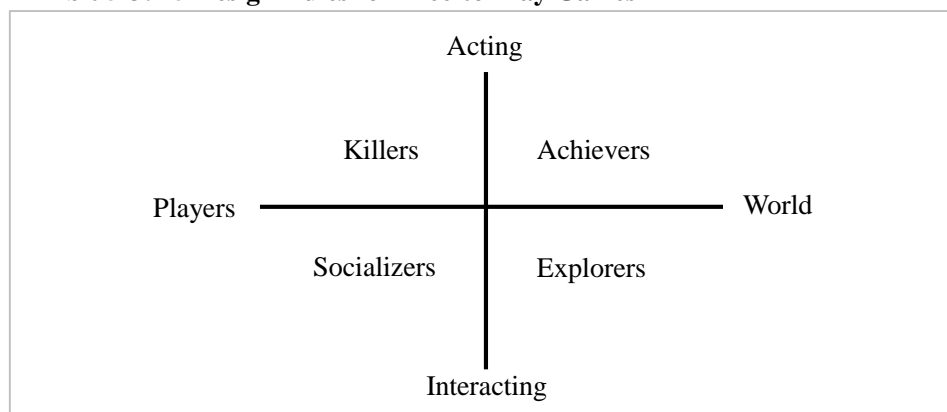
⁴⁶ Lovell, N. Fahey, R. (2012). *Design Rules for Free-to-Play Games*. Gamesbrief. London.

ways. Therefore, the game should have multiple layers of contents to garner different type of audiences. Those various audiences also values thing differently. Hence, the game must provide a wide range of product choices with numerous price tags (which shall be discussed in Pricing of 4P section). The game does not have to be polish or finish to launch. In this age, we can get market analysis from the actual customers by putting it on the market early. Using those data, we can keep on refining the product, discovering what they actually want. The major risk that Ninth Idea has to face is reputation if the product is lower than audience expectation. Therefore, Ninth Idea must keep in mind that the aim to launch unfinished product is to learn about the players and not because of incompetency.

5.1.3. Type of players

According to Bartle, there are four types of player based on their gaming preference; Achievers, Explorers, Socializers and Killers.⁴⁷ **Achievers'** motivation is accumulating proof of achievement, both for themselves or to show off to their friends. **Explorer** enjoyment comes from discovering new places, hidden items and etc. **Socializers** play for social opportunities. They enjoy interaction with other characters, whether it be computer controlled or human player. **Killers** are competitive players where game is considered as a sport and being number one is the most important thing. The relations between each types and their activities are described as below diagram.

Exhibit 5-3: 15 Design Rules for Free-to-Play Games



Source: Gamasutra⁴⁸

⁴⁷ Richard, B. (1996), *Hearts, Clubs, Diamonds, Spades: Players Who suit MUDs*, accessed April 2013, <http://www.mud.co.uk/richard/hcds.htm>

⁴⁸ Stewart, B. (2011), *Personality And Play Styles: A Unified Model*, accessed June 2013, http://www.gamasutra.com/view/feature/6474/personality_and_play_styles_a_.php

5.1.4. Revenue channel

Revenue can be divided into three main groups of game content revenue, advertisement revenue and other revenue. Game content revenue will be from of IAP (In-App-Purchase) in each title. According to case study of other games currently in the market, multiple types of products can be purchased. Therefore, the game does not have to sell only one type of products. It can provide as many types of buying option as possible for customers. Below are the list of product that can be sell in the game as IAP.

Game content revenue

1. Perishable items that allow players to play more often.
2. Perishable items that help players with the game. (E.g. easier enemy.)
3. Items that gives the permanent benefits of above items. (E.g. permanently increase times to available for play per day.)
4. Equipment item that increase character ability than regular item.
5. Fashionable equipment item that can only be obtain via real money payment.
6. Items that are required to unlock an achievement.
7. Selling the later episodes (sequels) or special side-story of the game.
8. Payment to disable automated advertisement.

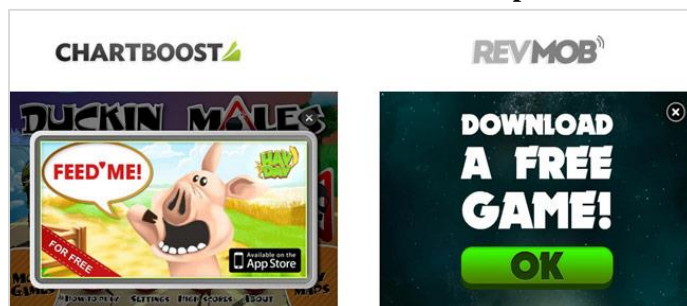
According to top 100 highest grossing list, 78% of the games uses in-game currency. In-game currency allows easy implementation and design where users pay real money for money in the game. Other revenue sources apart from game related content could also be considered based on appropriateness of the title. Below is the list of possible revenue stream that the company can take advantage of.

Automated advertisement

Advertisements for mobile application are mostly automated. There are a number of advertisement networks provide such services. Most networks are compatible with multiple platforms except for iAd by Apple, which is only available for iOS devices. Two most common revenue model for mobile/internet advertising are CPC, CPM and CPA. **CPC (Cost Per Click)** is when advertisers

pay once the audiences click on the advertisement. **CPM (Cost Per Mille)** derived from Cost Per thousand impressions for easier calculation. It is paid when audiences see the advertisement, hence the unit in thousands. **CPA (Cost Per Acquisition)** is based on users completing a certain action. In mobile platform environment, the action usually refers to installing an advertised application. The rate for each type of advertisement differs based on the advertisers.

Exhibit 5-4: Chartboost and RevMob example advertisement



Source: Revmob Review⁴⁹

Apart from revenue from advertisers, some of the advertisement network, such as Chartboost, offers a simple implementation of promoting own application. If publishers, of application, have multiple apps, it can switch from advertising contents of others to their own contents where necessary. This supports Ninth Idea’s value proposition of CAIS which is explained in the next section.

Other revenue source

1. Real, physical product advertisement within the game (e.g. Coca-Cola drinks in game)
2. Selling original sound track (OST) in the games on iTunes
3. Selling merchandise (dolls, t-shirts) of characters in hit titles

Exhibit 5-5: Example of merchandises from Angry Birds



Source: Rovio Entertainment (2013)⁵⁰

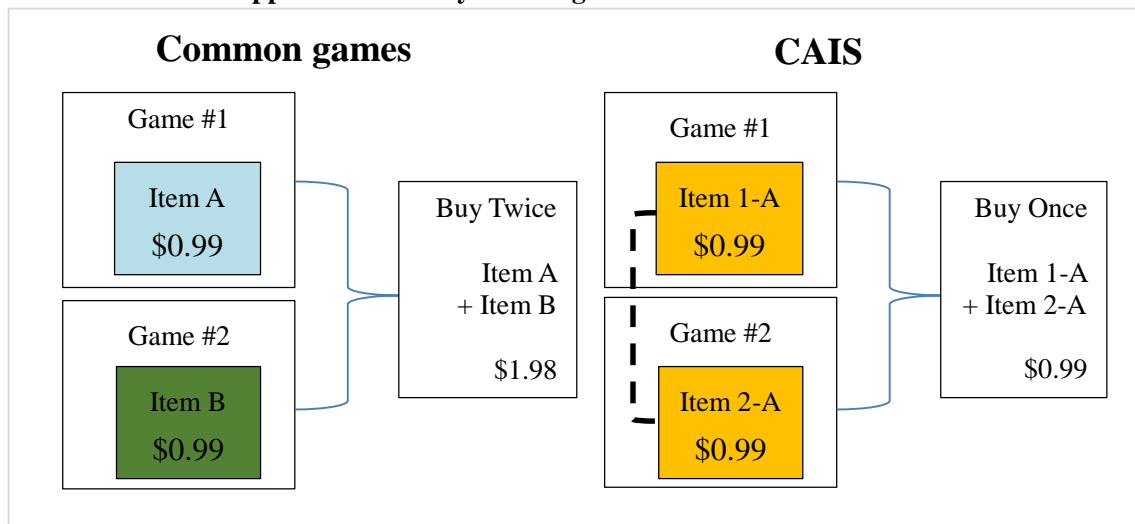
⁴⁹ Revmob Review (2013). *RevMob vs. Chartboost – A Side by Side Comparison*, accessed March 2013, <http://www.revmobreview.com/networks/revmob-vs-chartboost-a-side-by-side-comparison/>

⁵⁰ Rovio Entertainment (2013), *Angry Birds Shop*, accessed March 2013, <http://shop.angrybirds.com/>

5.2. VALUE PROPOSITION

Currently, there are many game developers for mobile phone market. Therefore, cross-application item system (CAIS) will be used to differentiate ourselves from competitors. In-App Purchase (IAP) is currently the trend of the gaming industry, both mobile and online. CAIS will be Ninth Idea's main differentiator. Normally, any item purchased can only be used within that game. Each new game released, customers will have to buy new items within those games. CAIS will let some of the item purchased to be able to use in other games released by Ninth Idea. Not all purchasable items in the games should be in the CAIS system to maintain exclusivity. Only small fraction, more or less 5% of total items, are available to CAIS. Once the library of Ninth Idea's games is large enough, CAIS can be opened for other company to join the system.

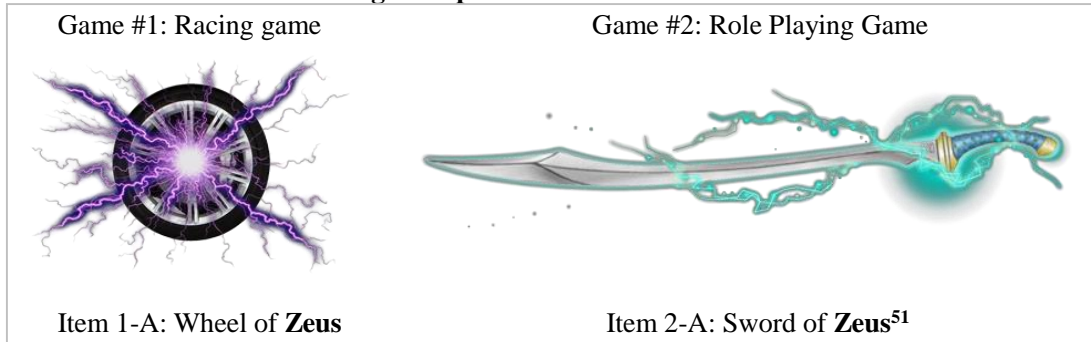
Exhibit 5-6: Cross Application Item System diagram



Source: Author

From above exhibit, **normally** players have to **pay twice** (one time for **Item A** in game #1 and one time for **Item B** in game #2). However, with **CAIS**, players only have to **pay once**. Players can pay in game #2 and get item 2-A first, then get item 1-A in game #1 and vice-versa. Item 1-A and Item 2-A are different items and have different properties depends on the games they are in. The only linked is the ability to pay only one time with CAIS. This can be represent with similar naming for each items in respective games. The example of naming system is shown in below exhibit.

Exhibit 5-7: CAIS Item Naming example



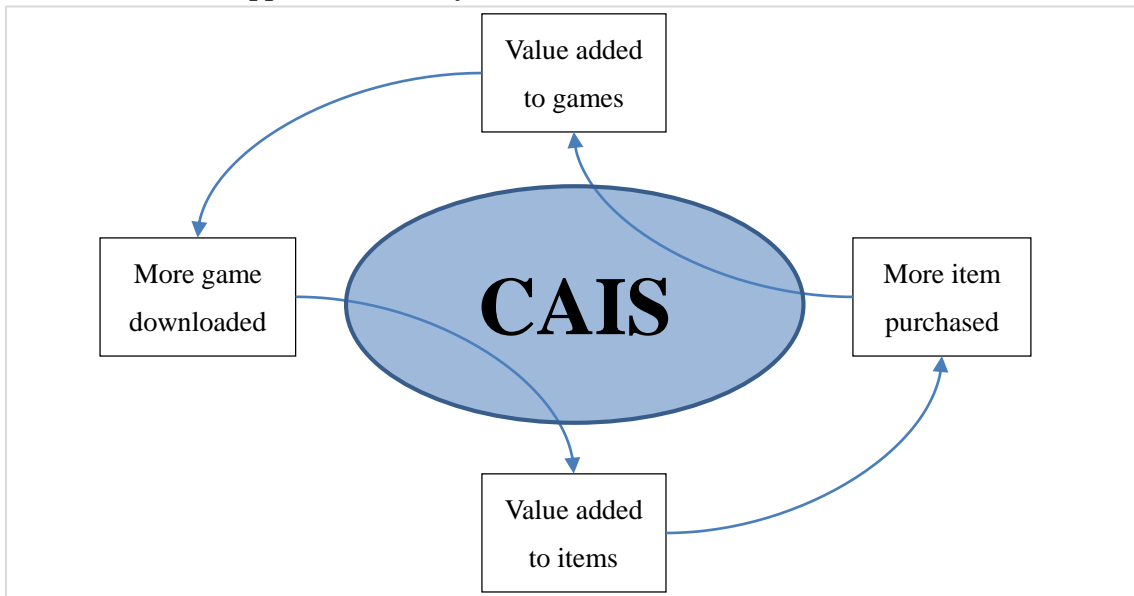
Source: Naraphim’s Deviant Art⁵²

Two main advantages of this system being,

1. Value added – Money spent has more value since items can also be used in other games.
2. Network effect – Encourage customers to play more of our games with items bought.

Even though there are concerns regarding the reduction of sales due to re-useable item. Since current overall paying customer accounted only for less than 3% of total customers.³⁴ Therefore, the main goal of this strategy is to expand the size of those paying customer. To be concluded, below is the summary of the CAIS virtuous cycle.

Exhibit 5-8: Cross Application Item System



Source: Author

⁵¹ Zeus is a name of a thunder god in Greek mythology.

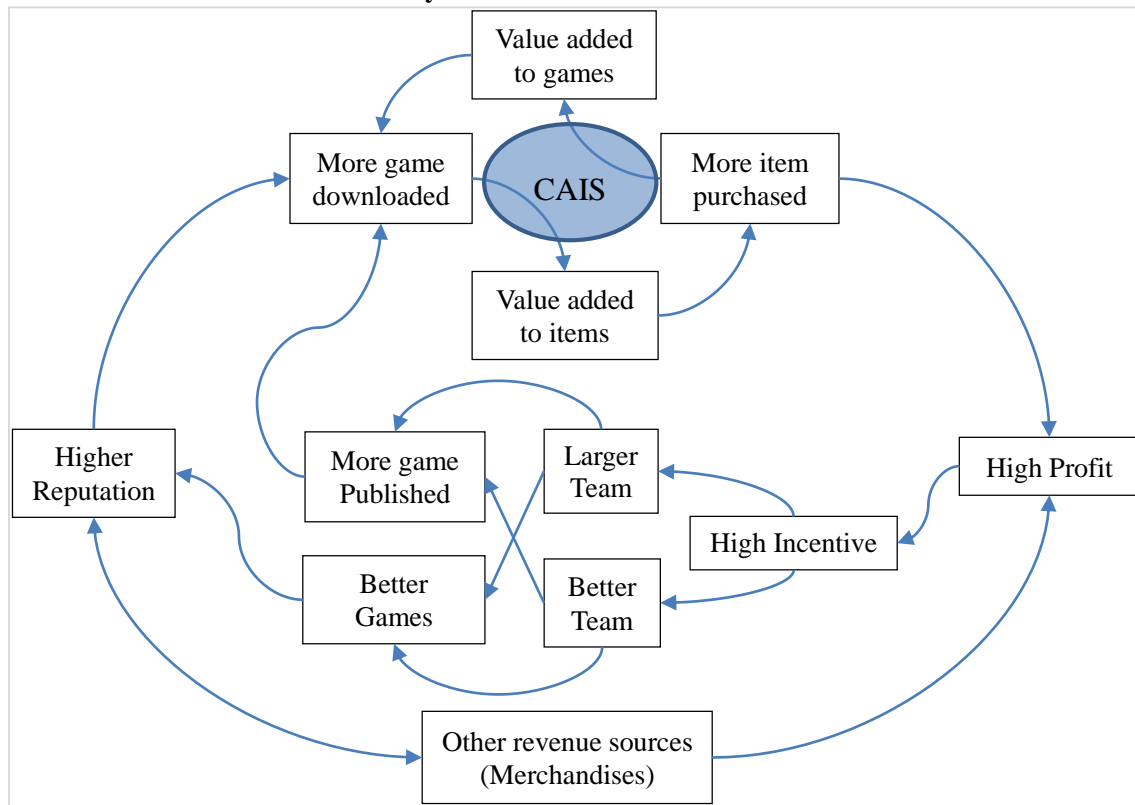
⁵² Naraphim M. (2013), *Naraphim’s DeviantArt Gallery*, accessed June 2013, <http://naraphim.deviantart.com/gallery/>

However, there is a term on Apple App Store states that “Apps that use IAP to purchase credits or other currencies must consume those credits within the application”. Therefore, our game will not be conflicting with the guidelines. CAIS only applied to “items” purchased not currency. More details are discussed in Risks and Assumptions section in Operational Plan.

5.3. GROWTH PLAN

Before reaching the phase where CAIS is functional, Ninth Idea has to go through multiple of phases to bring together enough financial resources. Therefore, the strategy is divided into three phases, cumulative phase startup phase and future phase. The cumulative phase is the phase to collect money creating low cost games with initial investment. The startup phase explains our plan to start build own product from scratch and promoting brand. And future phase explains on the direction that will be taken once our brand is recognized and CAIS is up and running. Below is a diagram of our ideal business cycle once it is at full potential.

Exhibit 5-9: Ninth Idea Virtuous Cycle

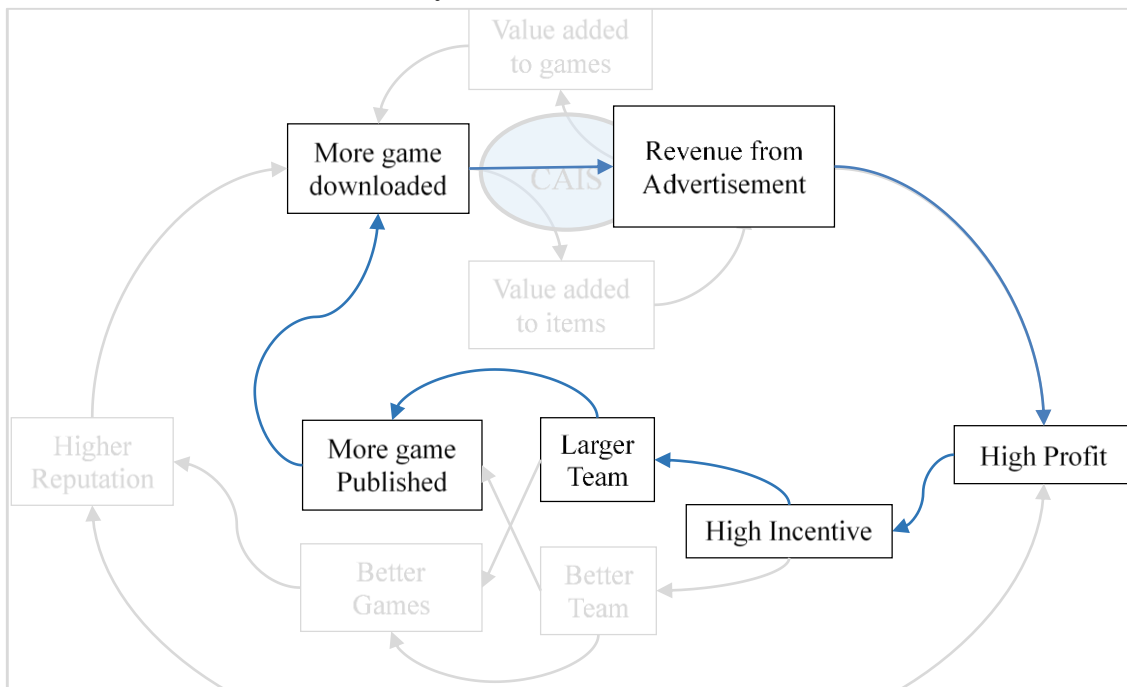


Source: Author

5.3.1. Cumulative Phase Strategy

As of the time this thesis is being written, both founders are currently in this phase. The phase aims to amass money for startup phase and future phase. Before starting any business, it is important to gather an investment. However, both financial resources mentioned in previous section is suitable for a team with full development capacity. Therefore, the first phase will only focus part of the virtuous cycle as described in exhibit below.

Exhibit 5-10: Ninth Idea Virtuous Cycle for Cumulative Phase



Source: Author

With current founders' capability, there are two methods to accumulate money. The first one is doing contracted work with current connections of game companies in Thailand. This method is currently being implemented. And it proved to be using a lot of human resources (time spent from both founders). The second method is called "Re-skinning".⁵³ Even though selling game as a one-off product require it to be 100% finished, it is not necessary that we have to carry the recurring development cost. Re-skinning is a method of buying source code of an existing game and then apply only new graphics to it. The main revenue source for this phase is advertisement.

⁵³ Carter, T (2012). *Making Money With Apps – Turn \$1,000 into \$200,000*. Blue Cloud Solution, accessed March 2013, <http://www.bluecloudsolutions.com/blog/money-apps-turn-1k-200k-portfolio/>

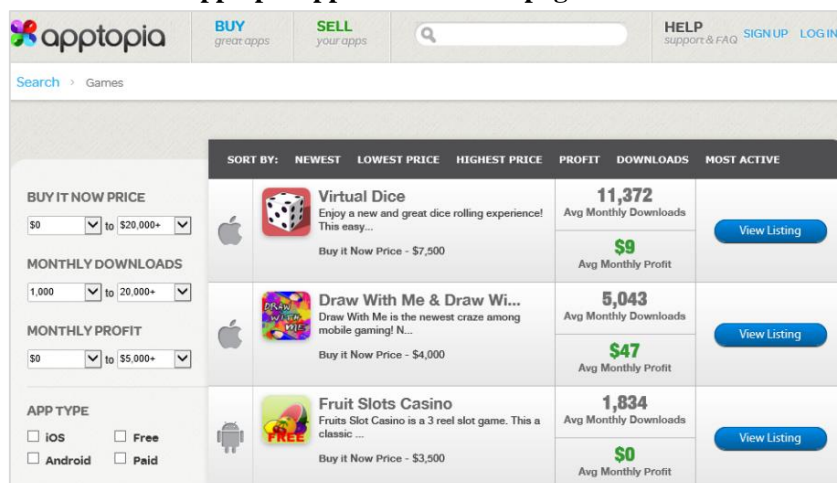
Exhibit 5-11: Re-skinned games example



Source: Carter, T (2012)

Since game as a product relies on big launch, we will exploit that by collecting money using advertisement. Therefore, two most important factors are theme to apply and game to buy. As for theme, or skin that will be applied to the game, has to focus on current popular trend. For example, the game can feature Mitt Romney and Barack Obama during United States Election period. When deciding on which game, the best choice would be an endless game or game with large amount of levels. So that the players would not feel ripped off. It also gives more opportunity to advertise and it can be re-skinned into multiple versions. The place to find a game source code is called “Apptopia”. It is a market place where developers can sell their source code to any publisher. The website includes all information such as monthly download / profit and game details for helping in consideration.

Exhibit 5-12: Apptopia application search page



Source: Apptopia (2013)⁵⁴

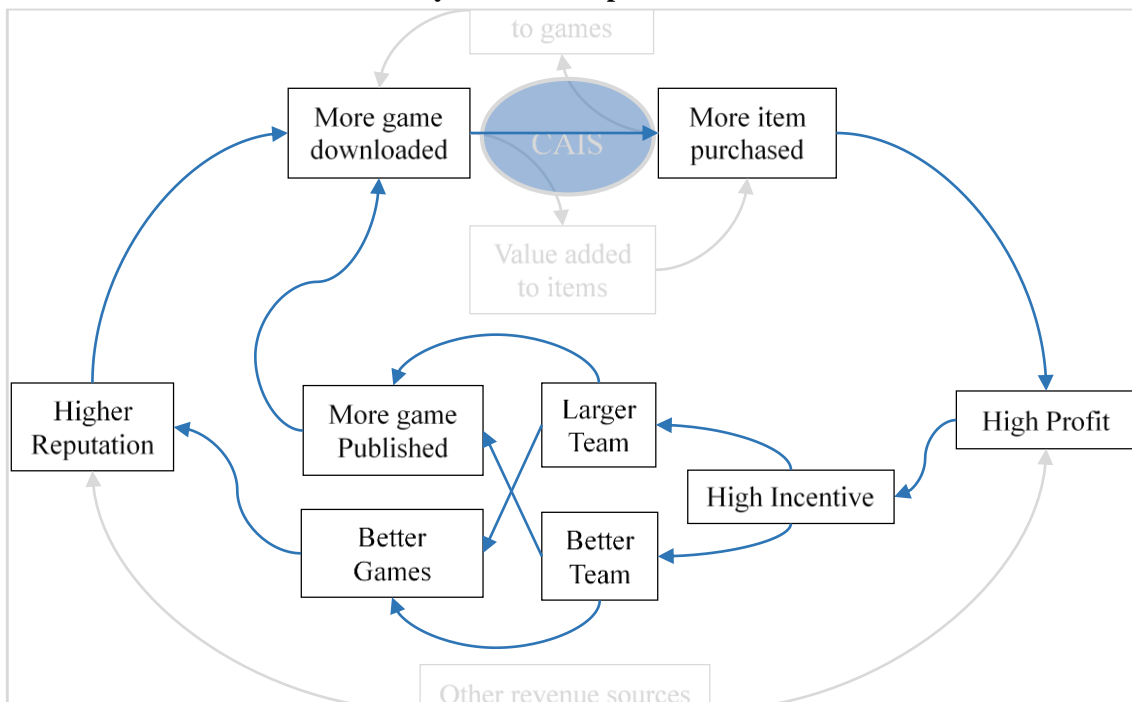
⁵⁴ Apptopia (2013). *The Marketplace for Brokering Acquisitions of Mobile Apps*, accessed March 2013, <https://www.apptopia.com/>

In order to maximize the profit, multiple advertisement networks will be used. This phase aims to collect fast money by using revenue stream from advertising in large amount of low quality games. Therefore, the games will be published under a different name to avoid corrupting the name of our company, Ninth Idea.

5.3.2. Startup Phase Strategy

After collecting enough money (exact figure is described in financial plan chapter), the company will be entering startup phase. This phase focuses on developing our own middle-size titles out into the market as soon and as many as possible in order to gain reputation in the name of Ninth Idea. Also with projected higher and stable income, Ninth Idea will increase development team to further create higher quality titles. The virtuous cycle for this phase will expand as exhibit below.

Exhibit 5-13: Ninth Idea Virtuous Cycle for Startup Phase



Source: Author

The strategy for this phase is explained more in the next chapter of Business Plan. It includes Market Plan and Operation Plan. Marketing Plan focuses on how to maximize the profit using 4P marketing mix. And operation plan describes all other administrative activity such as working environment, schedule of each project and timeline of the company.

5.3.3. Future phase strategy

Once the company portfolio is big enough, we will be implementing CAIS into our game collection. The reason CAIS is implemented in this later phase due to the nature of cross-application of the system. If there are a small number of library, the incentive of having CAIS is not high enough for the player to be attracted to Ninth Idea's games. Therefore, even before CAIS is being deployed, all Ninth Idea's games must always be designed with CAIS in mind.

Higher reputation also opened up to many opportunities such as higher quality developers and joint project with other company. Angry Bird Star Wars is a perfect example of a joint project between a game and non-game company. It is an Angry Birds game with the birds as Star Wars characters.

Exhibit 5-14: Angry Birds Star Wars



Source: Rovio Mobile Ltd.⁵⁵

There is also a risk that self-published games might not be as successful as expected. However, with a bigger portfolio, a chance to be able to accept contracted work is also higher. According to the interview, there are many companies in Thailand looking for outsourcing game development project. Thai Game Developers Corner (TGDC)⁵⁶, is one community where there are multiple game developers in Thailand connect to each other. TGDC does not only provide work but also advice and recommendation among Thai developers community.

⁵⁵ Rovio Mobile Ltd. (2013), *Angry Birds Star Wars: Google Play Store*, accessed June 2013, <https://play.google.com/store/apps/details?id=com.rovio.angrybirdsstarwars.ads.iap>

⁵⁶ Thai Game Developers Corner TGDC (2013), *Thai Game Developers Corner*, accessed June 2013, <https://www.facebook.com/groups/thaigamepad/>

CHAPTER 6. BUSINESS PLAN

Apart from pushing low quality product out into the market in Cumulative phase, products that will be launched afterward will be delivered with the strategy explained in this chapter of Business Plan. This chapter includes Marketing Plan of the product and Operation Plan of the company.

6.1. MARKETING PLAN

This section uses 4P marketing mix to describe the process to achieve the ARM (Acquisition, Retention and Monetization). 4P marketing mix consists of Product, Price, Place and Promotion. The concept behind each one is to creating value, capturing value, delivering value and communicating value respectively.⁵⁷ This thesis will introduce examples of game design document abstract of the two first games that will be published. Apart from Place, other sections of 4P describe the generic strategy of the marketing mix. Then the strategies for both products are explained separately due to the different in genre of the products.

6.1.1. Product

The objective of the first game is to test out the market and development capability. There are many factors that can hinder the process of publishing a game. Therefore, it is better to have a test run on smaller, less risky product. The second game will incorporate character design, deeper story and deeper gameplay strategy in order to create emotional immersion and connection between players and the company. Types of games are only hypothesis from author idea. If this was a normal business, everything can be nailed down. But current game industry has an advantage that the performance could be tested as business goes on (and adapt accordingly). The first game of Ninth Idea will be chess in Thai version called “Makruk” or “Thai chess” to take full advantage of Ninth Idea as a Thai developer. And the second game will be a strategy game using chess mechanic called “Knight Out” to exploit the similar gameplay from the first game with existing framework.

⁵⁷ Grewal, D. Levy, M (2010) *Marketing Second Edition*. McGraw-Hill/Irwin. NY.

1st Product: Thai Chess VS

According to the interviews, game genre that requires shortest time to develop is board game. Even though it is the genre with least interest, it also has less competition. To maximize Ninth Idea's advantage of being Thai native, the first game launch will be Thai chess game. Currently, in Apple App Store, there are only three competitors (one USD1.99 and two free). The free ones are only available as one player against computer opponent. This game will fill in the market gap by providing two players Thai chess game on mobile device.

Exhibit 6-1: Thai chess Mobile Game Application on the market



Source: iTunes (2013)

Exhibit 6-2: Wood Carved Thai Chess



Source: dhammashop⁵⁸

Target: Chess players of all ages.

Genre: Local Multiplayer Board game.

Overall Strategy: Make a low budget game

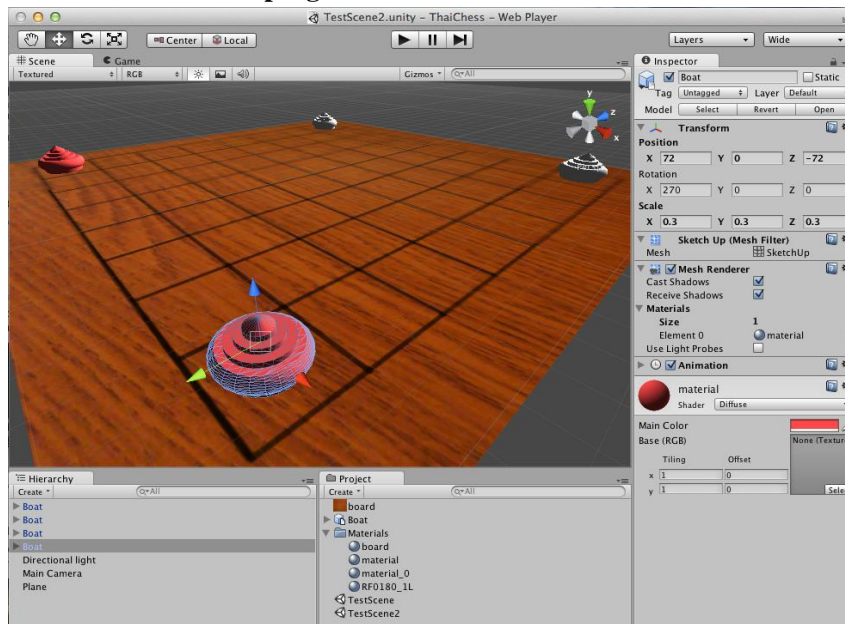
to introduce the brand to the market

Gameplay: Thai chess is almost the same as international chess. Apart from the name of each piece, two main differences would be the movement of bishop and queen and starting position. Thai chess queen can only move one step diagonally. Thai bishop movement is also one step diagonally or one step forward. The rest of the pieces have the same movement as international chess. Once both sides have no pawns left, the king must be mated within 64 moves. Otherwise the game is drawn.

⁵⁸ Dhammashop (2013), *Thai Chess Wood Carving Traditional Board Game Travel Set Chess Collector*, accessed April 2013, <http://www.ebay.com/itm/Thai-Chess-Wood-CarvingTraditional-Board-Game-Travel-Set-World-Chess-Collector-/200767959904>

Artistic Style: According to preliminary interview, board games are preferred in both 2D and 3D. The consumers in 3D market are usually aims for realistic graphic style while consumer in 2D market focus more on simplicity and ease of playing. In general, 3D graphic took longer to produce than 2D. But this game limits the requirement of assets to 6 types of pieces for both side (Rook, Knight, Bishop, King, Queen and Pawn). Therefore, time allocated to the 3D task, both graphic and code, is similar to those of 2D games.

Exhibit 6-3: Work in progress of Thai Chess VS 3D version



Source: Ninth Idea

Project Timeline: With the game of this size, the project should not take more than 5 weeks from start of production to publication. Below is the project schedule table.

Exhibit 6-4: Thai Chess VS project timeline

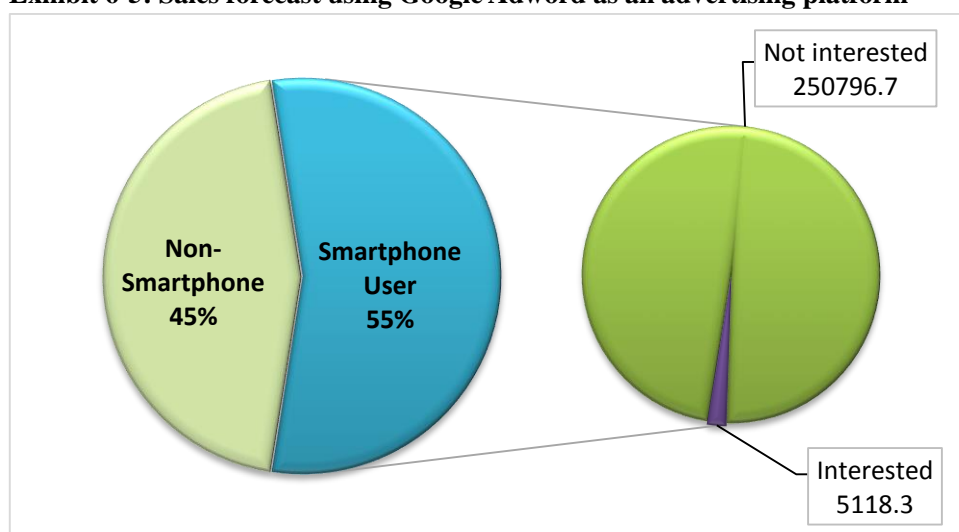
	Week 1	Week 2	Week 3	Week 4	Week 5
Game Design					
Programming					
Graphic Design (2D&3D)					
Sound design					
QA Testing					
Publish on all platforms					

Source: Author

Sales Forecast: One way to make a sales projection of mobile application is to use Google Adword Keyword Tool. The tool can generate the number of user searching the keyword using Google. Then, the number can be breakdown into smartphone users, click through rate and conversion rate from existing application.

The keywords of “Thai Chess”, “Makruk”, “หมากลูก” and “หมากลูกไทย” (“Chess” and “Thai Chess” in Thai language, respectively) will be used. Their global monthly search is numbered at 465,300. With smartphone penetration rate of 55% Error! Bookmark not defined. and Google Adword click through rate of 2%⁵⁹, around 5,120 will actually reach our game. Considering 3% of those players actually pays for the game³⁴ and average spending of USD1.99, income for this title is estimated to initially be at USD300 per month. This is a preliminary sales projection, a forecast with relations to the big picture is explained in Financial Plan chapter.

Exhibit 6-5: Sales forecast using Google Adword as an advertising platform



Source: Author

This projection based on using only Google Adword as a promotional tool. Therefore, extra download could be coming from other promotional sources. Generally, mobile games on both iOS and Android will have the highest sales at launch. Then it will decline to a certain stable rate of download per month. However, there are many ways to boost sales of older published games such as showing advertisement in new game. CAIS is also a system that will encourage older game sales.

⁵⁹ Schwarts, B (2010), *Google AdWords Click Through Rates: 2% is Average But Double Digits is Great*, accessed April 2013, <http://www.seroundtable.com/archives/021514.html>

2nd Product: Knight Out

Once the company has gained some reputation and followers, the strategy is to move forward into bigger games with similar game play. According to the survey, strategy and RPG game are the two genre that respondents willing to pay most. But the strategy genre was chosen due to shorter development time. Even though the genre has a large amount of competitor, the main differentiator is a chess element within the gameplay. A unique gameplay that target niche market suits the IAP freemium model since it targets on gaining revenue on dedicate player.

Exhibit 6-6: App Logo



Source: Ninth Idea⁶⁰

This game was launched independently in 2011 as a test project for Blackberry market. The new version will be an update to the 2011 version. It will include more contents and more refined gameplay using comments from users of the previous version.

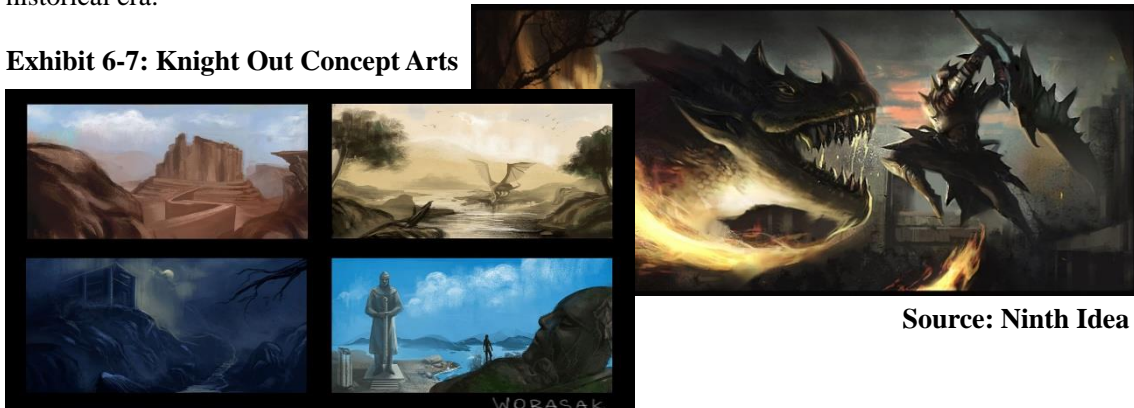
Target: Chess players and Strategy game players of all ages.

Genre: Single Player Strategy game.

Overall Strategy: Expanding current customer base of chess players. Exploring larger scale development and promotion channel.

Artistic Style: In game with this scale, 3D art assets have to be sketched in 2D first and then do the modeling. Therefore, the amount of time usually takes double. The game shall have 2D artistic style due to the genre of the game, the size of the game and the variety of the character. Apart from being 2D, the game will be conceptualized with medieval design since the chess in a way represents historical era.

Exhibit 6-7: Knight Out Concept Arts

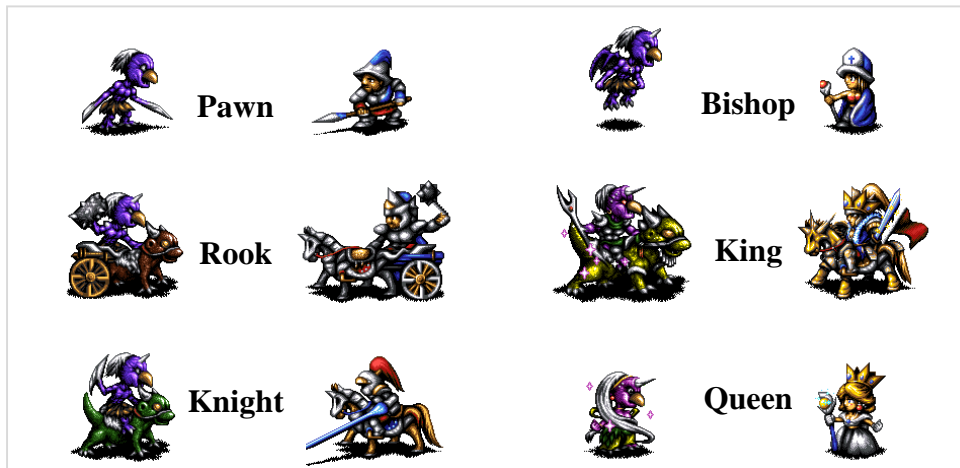


Source: Ninth Idea

⁶⁰ Ninth Idea (2011), *Knight Out for Blackberry Playbook*. Blackberry App World.

Gameplay: The general objective is to use your own hero character to eliminate all of the villain character on the board with chess rules. Both hero and villain characters represent a piece in chess game such as bishop, knight, rook and etc.

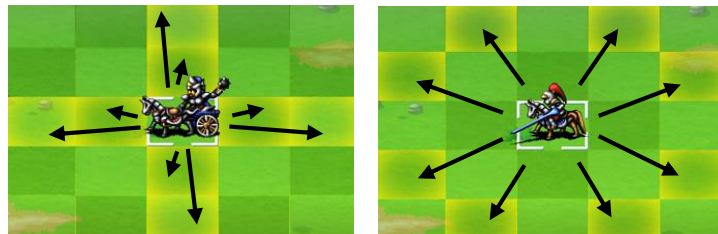
Exhibit 6-8: Villain and hero character representation of chess pieces



Source: Ninth Idea

Their movement will be the same as chess piece represent but with limitation. For example, Rook can only advance 2 spaces, instead of to the edge of the board. The purpose of such limitation is to let players raise the army and then get attached to each of the character.

Exhibit: 6-9: Example of character movements



Source: Ninth Idea

According to an interview, the most important element in game design of this era is to reduce the attrition rate of the players. Game designer has to keep the players coming back since many new games are being released every day in mobile game market. Supported with the game in top 100 list, one of the recommendations was to have a “**Collectible**” element in the game. Such as capturing monster and be able to use them. “**Storyline**” was also recommended since it provides immersion to the players.⁶¹ Extra story could also be sold off as an In App Purchase or for releasing a sequel purpose.

⁶¹ Clarke, S (2012). *Serialised Storytelling: A Changing Landscape*, accessed April 2013, <http://www.ign.com/articles/2012/12/29/serialised-storytelling-a-changing-landscape>

Project Timeline: This game will be developed under different engine from the last version. Therefore, the reusable asset will be only graphic assets and some codes. With reused graphic assets and experience in making Thai Chess VS, the project should be finished within 5 months timeframe.

Exhibit 6-10: Knight Out project timeline

	Month 1	Month 2	Month 3	Month 4	Month 5
Game Design					
Programming					
Graphic Design					
Sound design					
QA Testing					
Publish on all platforms					

Source: Author

Sales Forecast: Since Knight Out will be launched as an ongoing service instead of a product, sales projection model will differ from Thai Chess VS’s model. A full sales forecast is explained in Financial Plan section along with recurring cost that will be associated with the game.

6.1.2. Price

Pricing strategy for game application heavily depends on game genre. Most of the strategy game in the market is a premium type, where you have to pay before playing. One good reason is due to high development cost. On the other hand, board games are generally free to play and rely on advertisement as a main source of revenue. Among the interviewees, there are conflicting opinions on premium and free app. One said that, free app can increase downloads ten times more than premium app especially if the app is coming from a no-name publisher. Another stated that, even though free app can generate large amount of downloads, it does not translate to sales and revenue. Free app reach to a large amount of players whom might not be your target segment.

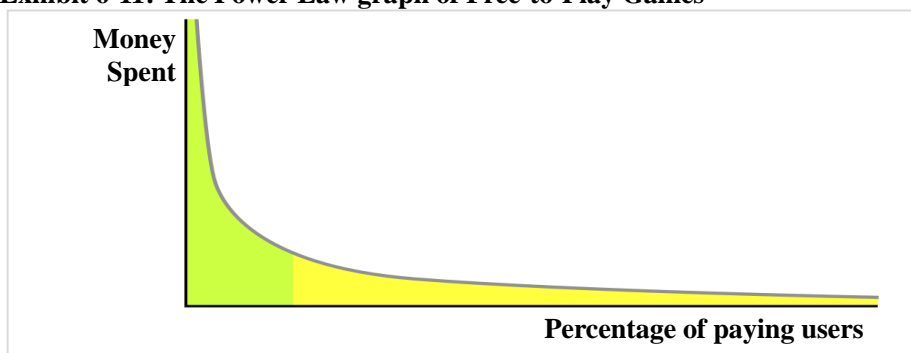
One great case study in this situation would be the globally released game called “Punch Quest”.⁶² The game started off as a free game and offering IAP as an in-game currency. During its first few weeks, the game generated 600,000 downloads which is considered as a huge success.

⁶² Nelson, J (2012), *Amid Slumping Revenue, 'Punch Quest' Switches to a Paid Game*. TouchArcade, accessed April 2013, <http://toucharcade.com/2012/11/14/amid-slumping-revenue-punch-quest-switches-to-a-paid-game/>

However, it was a financial failure. Developer of the game stated that players did not spend as much money as expected. One month after it was released, the game become premium with a price tag of USD 0.99. This business model contradicts with the result of two similar games called “Temple Run” and “Jetpack Joyride”. Both launched with USD 0.99 price tag (with IAP) and then went free later on. They are considered to be successful with more than 40 million downloads.⁶³ This raises the question of pricing strategy of IAP. However, even with conflicting evidence, the solution can be found using flexible pricing system of mobile application market. The pricing system can be constantly changing until the right pricing spot is found, as of March 2013, Punch Quest is now free again.⁶⁴

Apart from the decision on making the game premium or freemium, multiple price point strategy is also important in mobile game industry. In the past, every user pays the same amount of money to get a game (around USD 40). The traditional pricing system shuns off customers who would like to play the game but is willing to play less. It also limits the ability of paying more than USD 40 from loyal and enthusiastic players. The new system of multiple price points for Free-to-Play games fit the model of “Power Law”.

Exhibit 6-11: The Power Law graph of Free-to-Play Games



Source: Lovell, N (2012)

Even though this model can cater to all types of player, casual players or true fans, one has to find the balance between the right price and its value. Therefore, there will be a price switch for all products until the one with maximizing profit is found. Since pricing strategy is based on the genre of the product, below explains the strategy of each product, Thai Chess VS and Knight Out, separately.

⁶³ Byford, S (2012), 'Punch Quest' goes paid after free-to-play failure. Theverge, accessed April 2013, <http://www.theverge.com/2012/11/14/3647410/punch-quest-goes-paid-after-free-to-play-failure>

⁶⁴ Rocketcat Games (2013), *Punch Quest*, accessed April 2013, <https://itunes.apple.com/us/app/punch-quest/id554223561?mt=8>

Thai Chess VS pricing strategy

Exhibit 6-12: Advertisement banner at the bottom of the screen

Revenue Model: Similar to other free board game with limited extra function, Thai Chess VS will use advertisement in a default free version. This way we can still earn money while expanding user bases with free app. Users can also pay extra with In App Purchase to remove the advertisement. Other possible IAP of extra functionalities include undo ability, rotate camera (in 3D mode) and extra skin for board and pieces.



Source: Optime Software⁶⁵

Product Pricing: The product will be available for free to attract downloads from traditional chess player.⁶⁶ Apart from in-game advertising provided by each operating system, below are the pricing table that will be implemented as In App Purchase. Some of the product will not be available at launch due to development time constraint. It will be implemented at a later phase once there are enough available resources. Please be noted that all these IAPs can be changed according to feedback from customer.

Exhibit 6-13: In App Purchase product pricing for Thai Chess VS

Description	Price
Game save unlock	\$1.99
Undo Ability Unlock (can be turned off)	\$1.99
Danger Alert Ability Unlock (can be turned off)	\$0.99
Animation Effect Unlock (pending) E.g. Knights able to swing sword	\$2.99
Camera Rotation (in 3D mode)	\$0.99
Chess Skin Set #1	\$0.99
Chess Skin Set #2	\$0.99
* Any single purchase will results in removal of advertisement banner	

Source: Author

⁶⁵ Optime Software LLC (2013), *Chess Free for iOS devices*

⁶⁶ Current number of chess player is not officially recorded. But there are yearly tournament which attract thousands of player every year. <http://www.lovemakrukthai.com/question>

Knight Out pricing strategy

Revenue Model: Using advertisement as a revenue source has both advantages and disadvantages. In this genre and scale of game, players do not expect to see the advertisement banner. According to an interview, a badly placed banner tends to slow the growth of fan base. The decision on going with advertisement is depending on the performance of the first game advertising revenue. If there are enough players buying IAP in the first game and advertising revenue is not that high, advertisement banner will not be in Knight Out.

With or without ads, the game will focus on selling extra contents in the game. Since this product is a single player with focus on story, items on sale will be related to the character appearance and ability. For example, special armor and experience potion. However, according to an interview, real money items that are too distinguished from normal items will alienate players. A careful adjustment must be made in order to balance the game in QA phase.

Product Pricing: The game will be available for free due to the fact that we need feedback from customer reviews to improve the game. Free game will also greatly expand user base that directly affect the growth of Ninth Idea’s reputation and amount of paying customer via IAP.

According to Rules of Free-to-Play games design number 7, 8, 9 and 13, the game must have a wide range price point of 0.99 to 100 and selling “emotional” items. To reward a player emotionally, one must understand the characteristic of that player by using four types of players explained in previous section; i.e. Achiever, Explorer, Socializer and Killer. Apart from dividing the product into different price range, it can also be divided based on types of player to maximize the revenue channel.

Exhibit 6-14: Example In-App-Purchase product pricing for Knight Out

Type	Description	Price
Achiever	Items required to finish a quest	\$0.99
	Appearance exclusive equipment	\$5.99
	More difficult game mode	\$9.99
Explorer	Extra hearts (more time to play the game)	\$0.99
	Lightning fast transportation	\$5.99
	Special glasses to see hidden object	\$9.99

Socializer	Character name change	\$0.99
	Appearance exclusive equipment	\$5.99
	Special glasses to see hidden object	\$9.99
Killer	Extra hearts (more time to play the game)	\$0.99
	Ability exclusive equipment	\$5.99
	More difficult game mode	\$9.99

Source: Author

6.1.3. Place

In the past, physical brick and mortar game stores are the place where customers can purchase a game. In current generation, digital download is becoming more popular due to very low operation cost. Mobile game market has two major platforms which are Apple's iOS and Google's Android. Currently, iOS devices hold a major market share. Therefore, the game shall be published for Apple's devices first. And then the game will be ported to another platform.

The tools (SDK) chosen for development is well-known for multiple platform deployment. Time taken for porting the game to another platform is minimal. Thus, the game can also be published on other platform such as desktop application, web browser application and even console devices such as PlayStation, Wii and Xbox. But as mentioned in Opportunity Analysis chapter, consoles licensing is very high. Accordingly, the game will initially be published on Mobile devices.

6.1.4. Promotion

Promotion roles in ARM are users' acquisition and users' retention. The big principle behind acquiring customer is to acquire them cheaper than they spend during their lifetime as our customer. Therefore, promotion strategy aims to reduce the cost per acquisition and increasing the lifetime value of customers. In the past, customers are treated as disposable. Once they bought the game, they are discarded as it is not easy to keep track of the customer. However, being able to contact previous customer means there is no cost for re-acquirement.

With this age of information technology, there are multiple ways to reach to potential audiences. Below are some of the ways to obtain customers.⁴⁵

Email

Email is a powerful flexible tool with great response rates. However, it is difficult to persuade customers to hand theirs over. Most of the time users are being spammed with junk email. If not carefully execute, the email sent out to loyal customer might be labeled as a spam mailed. Therefore, a third party service provider can be used to ensure deliverability. Some examples include, www.awber.com and www.mailchimp.com. Auto-responder is a tactic that will put the gathered email addresses into uses. This tactics build a relationship with the customers. It can start by acknowledging them as a valued customer after they make a purchase by sending them a thank you note. Then, sending information that is “useful to them” to earn their trust, such as incentives in new game for them for being such a loyal customer.⁶⁷

YouTube

Multiple social networks are currently available such as Facebook, Twitter and YouTube. As a video sharing service, YouTube is the best platform to promote a game. Not only it can best describe the gameplay via motion pictures, the asset from YouTube can also be easily used in blogs and review sites. Promotional video should be limited to 2 minutes in length due to short attention span of general internet users. YouTube also has a great function which is Subscribe. Subscription allows subscribed users to be able to see any updates made in the channel they are subscribed to. This reduces the workload of having to send out information to users individually.

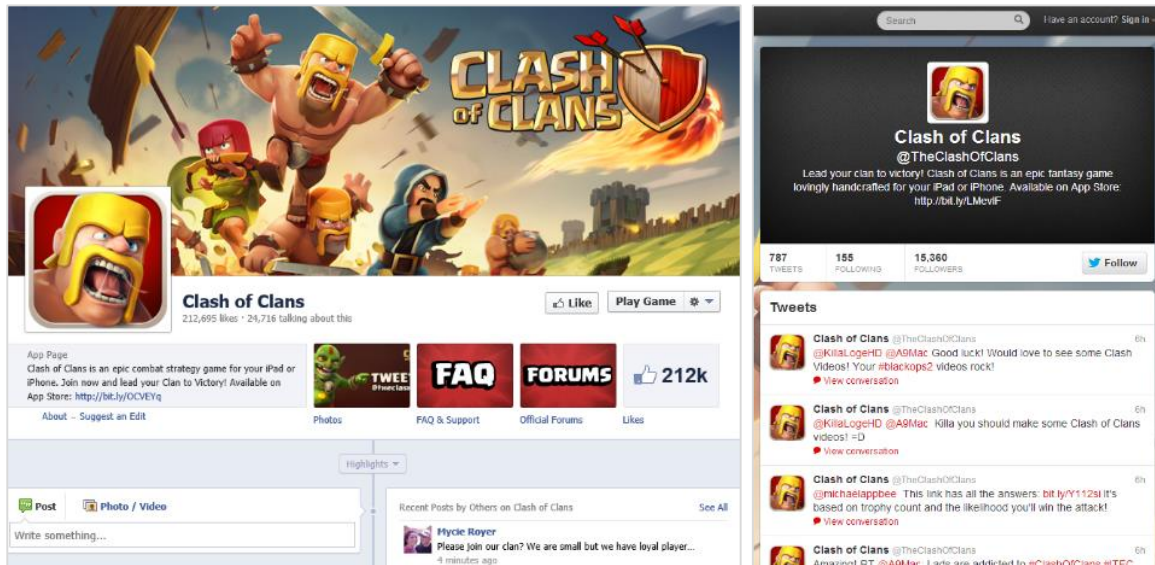
Facebook

Facebook is also a good platform to promote the game due to its sheer size of over 400 million registered users.⁶⁸ Similar to YouTube’s Subscribe, Facebook can create a page and let users “Like” the page in order to follow any updates. Contrast to a forum or a web board on a separate website, Facebook page allows users to give feedback and suggestion regarding the game in their own environment. The number of like on a page can be a showcase of a game’s popularity.

⁶⁷ Mailchimp (2013), *How To Avoid Spam Filters*, accessed April 2013, <http://mailchimp.com/resources/guides/html/how-to-avoid-spam-filters/>

⁶⁸ Eldon, E (2010). *Measurement Firms Don’t Agree on January 2010 Traffic for Facebook, MySpace and Twitter*, accessed April 2013, <http://www.insidefacebook.com/2010/02/24/measurement-firms-dont-agree-on-january-2010-traffic-for-facebook-myspace-and-twitter/>

Exhibit 6-15: Clash of Clans Facebook page (left)⁶⁹ and Twitter (right)⁷⁰



Source: Supercell

Twitter

If social network is considered as communication tools, Twitter is the best one among the market. As a short message of 140 characters communication channel, Twitter is responsive and real-time. Both characteristics allow Twitter to address the pressing concerns to the users such as game server problem or promoting time sensitive events.

Press and Journalist

There are many game trade show such as E3 and PAX where hundreds of press and journalists attend. However, due to the size of the startup company, any announcement made will not be reaching to users. The press are already overwhelm with news and there is not enough space for a small company.⁷¹ It is better to send the release announcement to mobile game review websites such as TouchArcade or PocketGamer. An email sent to them should include a link to a gameplay video, multiple screen shots and a brief description on what the game is about.⁷² This will helps them smoothly go through the email and maybe publish a review of the game on the website.

⁶⁹ Supercell (2013), *Clash of Clans*, accessed April 2013, <https://www.facebook.com/ClashofClans>

⁷⁰ Supercell (2013), *Clash of Clans*, accessed April 2013, <https://twitter.com/TheClashOfClans>

⁷¹ Marchas, D (2009), *An interview with Dan Marshall of Zombie Cow Studios*, accessed April 2013, <http://britishindie.com/2009/08/zombie-cow-interview/>

⁷² Hodapp, E (2010), iPhone Developer PSA, accessed April 2013, <http://a-13.net/post/98060270/iphone-developer-psa>

Paid Advertisement

The major internet advertisement platform is Google Adwords, a keyword marketing. When users search for one of the keywords, the ad will appear as a sponsored link. The payment will be made users click on the ad. Some third companies, such as www.valueclick.com, can provide advice on how much is necessary to pay for such product.

Facebook is also a good place to do advertisement even though our product is not a Facebook application. Facebook launched a new mobile ad for Apps in August 2012. The advertisement will be shown on Facebook mobile application and not on the website. The strong point of Facebook advertisement platform is the ability to segment target audiences. Similar to browser based Facebook advertisement, advertisers can specifically determine type of target audiences such as region, age and gender.

Exhibit 6-16: Facebook Advertisement for Apps



Source: Raji, V⁷³

Professional promotion services

Professional promoter usually cost very high and available through traditional publisher. However, due to recent growth in number indie (small team) developer, multiple marketers specialized in promoting indie games have emerged. Most of them are private contractor which requires direct connection. After initial contacts, below is the information that was provided by them.⁷⁴

⁷³ Raji, V (2012). *Introducing New Mobile Ads for Apps*. Facebook Developer Blog, accessed April 2013, <https://developers.facebook.com/blog/post/2012/08/07/introducing-new-mobile-ads-for-apps/>

⁷⁴ Mary, K (2013). *Marketing for indie games*, accessed June 2013, <http://indieviddy.com/>

The services include;

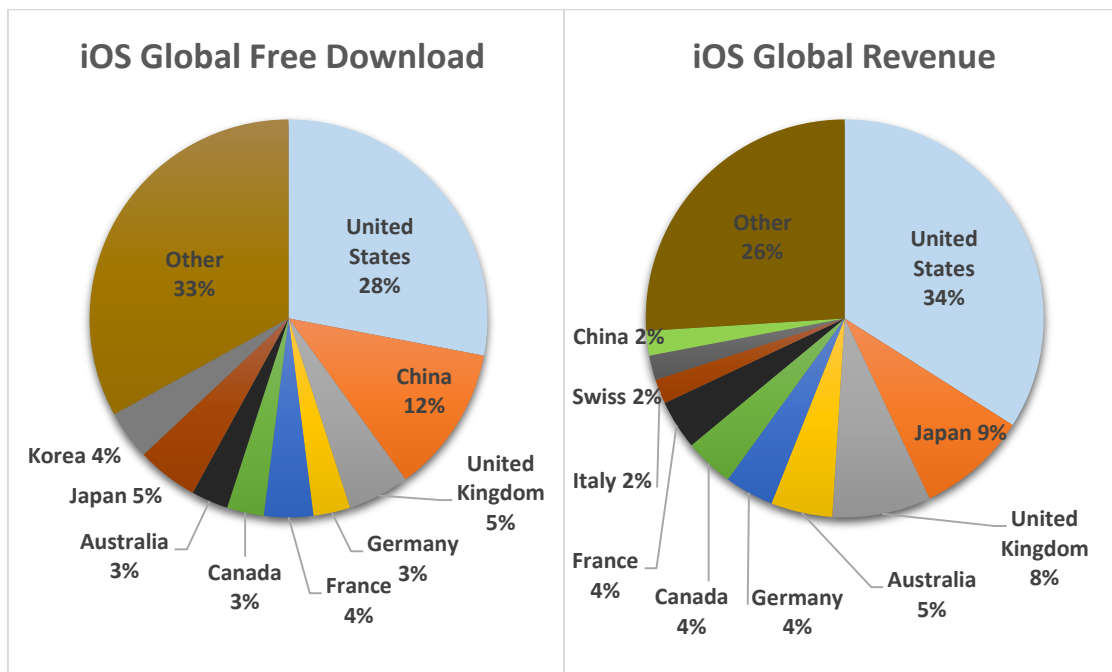
1. Write a professional press release about the game and distribute it to gaming sites and blogs.
2. Create a trailer and distribute it to appropriate gaming sites and blogs.
3. Perform quality assurance testing on the game, provide constructive criticism and bug reports.
4. Provide a professional game description for submission to application store.

The offer for professional marketing services is at USD 1000 for PC and Mac. For mobile application, the offer from another marketer expert stands at USD 350 for similar services.

Localization

Even though United States is the biggest market, it only accounted for 34% in iOS global revenue share and 28% of global free download market. Therefore, localization into other language is necessary to maximize the revenue.

Exhibit 6-17: iOS Global free download share and revenue share



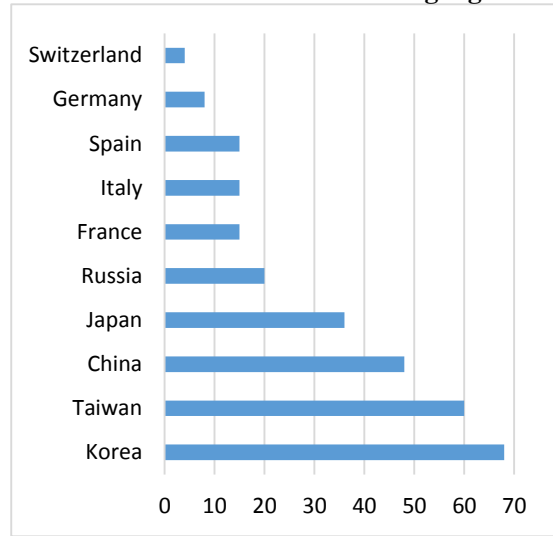
Source: App Annie⁷⁵

From the above figures, it can be seen that non-English speaking country in the top ranks includes Japan, China, Korea, Germany, France, Italy and Switzerland. However, the importance of

⁷⁵ App Annie (2011). *The Importance of Localization in App Stores*. App Annie Blog, accessed April 2013, <http://blog.appannie.com/localization-entry/>

each language is not equal. On the right is the graph representation of percentage of application with local language name in top 25 monthly free downloads. Local titled application dominate the top 25 in East Asian countries. While European countries all have around 85% penetration rate of English language application. Therefore, localization is an important step to enter East Asian country market.

Exhibit 6-18: Percentage of application with local language title



Source: App Annie

6.2. OPERATION PLAN

6.2.1. Cumulative Phase

In cumulative phase, the goal is to collect money for future phase without worrying about reputation. Therefore, the plan is to acquire a source-code of a decent quality game. And then re-skin it multiple times. To have enough profitability (more information in Financial Plan chapter), 6 releases per one source-code and 2 releases per month is the objective.

Exhibit 6-19: Cumulative Phase Schedule

Months	1	2	3	4	5	6	7	8
Acquire 1 st game to re-skin	█							
Re-skin 1		█						
Re-skin 2			█					
Re-skin 3			█					
Re-skin 4				█				
Re-skin 5				█				
Acquire 2 nd game to re-skin					█			
Re-skin 6						█		
Re-skin 7						█		
Re-skin 8							█	
Re-skin 9							█	
Re-skin 10								█
Re-skin 11								█

Source: Author

During this phase, the graphic designer partner will do Ninth Idea’s work as a part-time. He will still be working full-time at another company due to financial reason. Once the payout is stable, the partner is expected to quit the job and work full-time with Ninth Idea. Therefore, releasing 2 games per month is a forecast on a single artist. If it is proven to be profitable, Ninth Idea could outsource the re-skinning process to other freelance artist simultaneously and release more game within each month.

6.2.2. Startup Phase

At this point, Ninth Idea must have enough money for both founders salary for one year (from cumulative phase and financial loan if necessary). Therefore, founders will have to work full-time with Ninth Idea. With 12 months’ salary savings, Ninth Idea will be able to fully finish the first two products as describe in previous section. Also, the re-skinning process can still be doing concurrently using external artist as a contracted work.

Exhibit 6-20: Startup Phase Schedule

Months	1	2	3	4	5	6
Thai Chess VS						
Development						
Knight Out						
Game Design						
Programming						
Graphic Design						
Sound design						
QA Testing						
Publish on all platforms						

Source: Author

During development of Knight Out, the team will have to come up with multiple next game’s ideas. After releasing Knight Out, Ninth Idea will monitor the performance of Knight Out and Thai Chess VS for another 3 months. If the revenue looks promising, Ninth Idea will go forward with the third original game (maybe with Kickstarter crowd funding). On the other hand, if the revenue does not reach expectation, another source of revenue must be considered such as contracting work from other company or back to re-skinning.

6.3. RISK AND ASSUMPTIONS

During the course of writing this thesis, multiple concerns were raised from interviewees and peers. This section describes risks concerned and how to deal with them accordingly.

Apple policy against cross application virtual currency

Since CAIS is Ninth Idea's main differentiator, any risk related to it is considered to be major. And the major concern is some of the Apple's policies against cross application currency. Below are five approval guidelines for Apple app store submission that are expected to be related to CAIS.

Exhibit 6-21: Apple's App Store Review Guidelines

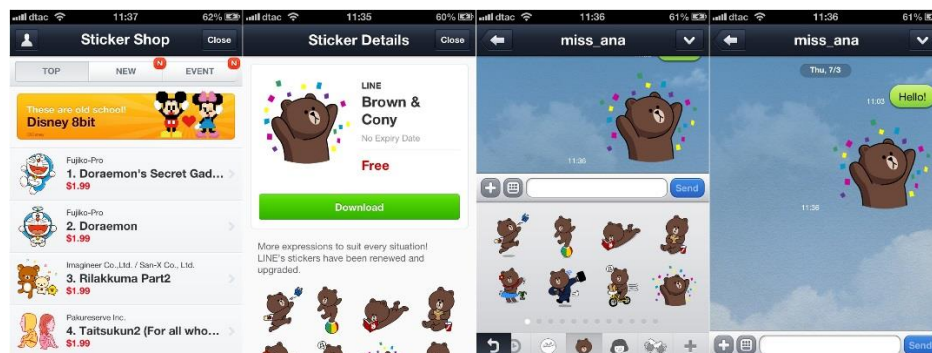
11. Purchasing and currencies

- 11.1 Apps that unlock or enable additional features or functionality with mechanisms other than the App Store will be rejected
- 11.2 Apps utilizing a system other than the In-App Purchase API (IAP) to purchase content, functionality, or services in an App will be rejected
- 11.3 Apps using IAP to purchase physical goods or goods and services used outside of the application will be rejected
- 11.4 Apps that use IAP to purchase credits or other currencies must consume those credits within the application
- 11.5 Apps that use IAP to purchase credits or other currencies that expire will be rejected

Source: Apple⁷⁶

However, there are precedent applications that provide a service that has one feature similar to CAIS. It is a feature called "Sticker" in a chat application called "Line" by Naver Japan.

Exhibit 6-22: Line's Sticker



Source: Naver Japan⁷⁷

⁷⁶ Apple (2013), *App Store Review Guidelines*, accessed June 2013, <https://developer.apple.com/appstore/resources/approval/guidelines.htm>

⁷⁷ Naver, Japan (2013), *Line*, accessed June 2013, <http://line.naver.jp/en/>

Users can purchase Sticker, an emotion icon that can be used when chatting. The key point is, Line is available for both Android and iOS. And users can “re-download” stickers that were purchased on another platform. CAIS is using a similar approach as Line. Therefore, the risk should be minimal regarding the conflict between CAIS and Apple’s policies of cross application virtual currency.

Game’s idea stolen when using crowd funding services

Some entrepreneur worry that posting unfinished ideas on crowd funding website could exposed a great idea to a potential thief. In order to have the project successfully crowd funded, the important thing is not the idea, but the execution of the project.⁷⁸ If Ninth Idea is able to reach the stages where it is plausible to use crowd funding site such as Kickstarter, Ninth Idea should already have the necessary workforce to at least persuade people to back up the project. And it will also enable Ninth Idea to finish the game properly before others could start imitating the idea.

Partners abandon the project

The graphic artist partner is undoubtedly a great art director with superb skill of both artistic and leadership. In the case of this partner abandoning Ninth Idea, while it is a great loss, but artist of similar caliber can be found among author’s connection in the industry. The process might get disrupt during the beginning of leaving. But it is not a show stopper for Ninth Idea.

Sales of the products do not meet expectation

In the cumulative phase, the risk is minimal as founders are working on the re-skinning project part-time. However, the risk increases in the startup phase. After one year of using initial funding as major source of salary, the team has to decide whether to move on as a publisher of its own games or to scale back as an outsourcing company.

⁷⁸ Kickstarter (2013), *FAQ: Creator Questions*, accessed June 2013, <http://www.kickstarter.com/help/faq/creator+questions#GettStar>

CHAPTER 7. FINANCIAL PLAN

7.1. COST OF PRODUCTION

Since a software company does not have tangible product, most of the cost will be salary of the employees. Apart from the salary, the expenses include, office rental, development equipment, software licensing and server hosting fees. According to one of the interviewee, the office is not necessary in this age of advance communication. Everything can be done remotely and once a month meeting is enough to have the game done. The main obstacle is the level of responsibility of team member. Since team member initially consist of two founders, working from home should suffice.

Exhibit 7-1: List of expenses in USD

Expense	Monthly cost	Yearly cost
iOS development licenses	-	99.00
Android development licenses	-	99.00
Server hosting (Cumulative Phase)	20.00	240.00
Server hosting (Startup Phase)	50.00	600.00
Programmer salary (Startup Phase)	1,000.00	12,000.00
Artist salary (Startup Phase)	1,000.00	12,000.00
Lead Programmer salary (Future Phase)	1,500.00	18,000.00
Lead Artist salary (Future Phase)	1,500.00	18,000.00
Programmer salary (Future Phase)	800.00	9,600.00
Artist salary (Future Phase)	800.00	9,600.00
Sound designer	200.00 per project	

Source: Author

Development equipment is an existing asset among team member. Therefore, other expenses that matters are platform development license and server hosting fees. As mentioned in Opportunity Analysis chapter, the cost of development on each platform is at USD99 per platform per year. As for server hosting (for Ninth Idea website and game data communication), we will use Amazon Web

Services (AWS)⁷⁹ with the advantage of scalability. AWS bills according to usage, contrast to other hosting services usually with fixed rates. Above hosting cost is based on projected network activity.

In order to be able to determine the worthiness of a game, the cost of each product must be calculated. If founders are working full-time, a re-skin game in cumulative phase is expected to take one weeks with one programmer and one artist. Thai Chess VS uses one programmer and one artist and takes one month to complete. Knight Out using the same resources but spends 5 months in production. Therefore, total cost in developing products in each phase are as below.

Exhibit 7-2: Production cost per game

Titles	Programmer Salary		Artist Salary		Month		Audio outsourcing		Total cost
Re-skin game	1,000	+	1,000	x	0.25	+	200	=	700
Thai Chess VS	1,000	+	1,000	x	1	+	200	=	2,200
Knight Out	1,000	+	1,000	x	5	+	200	=	10,200

Source: Author

However, both founders agreed to work part-time for Ninth Idea in cumulative phase due to financial security reason. Therefore, the actual time it will take to make a re-skin game become two weeks. And all the profit during this phase will be save up for Startup Phase.

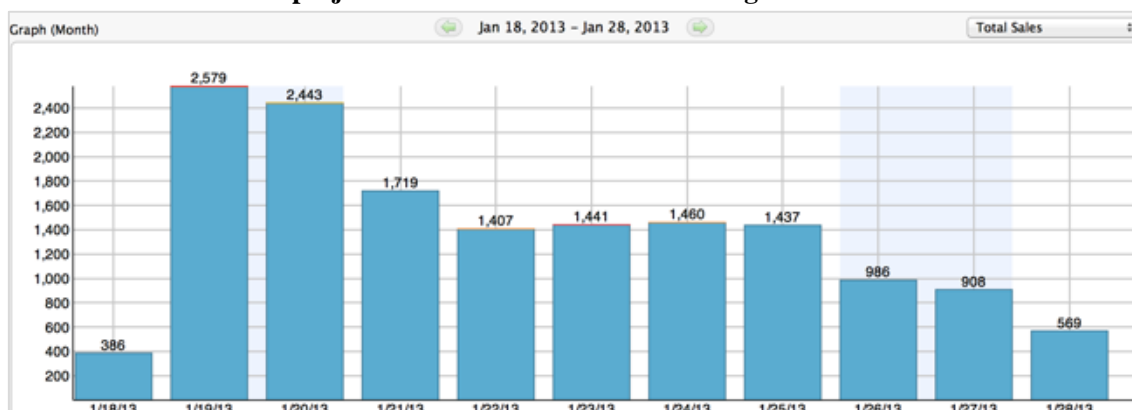
7.2. INCOME PROJECTION

During cumulative phase, the revenue mainly comes from advertising. The product in this phase focus at being cheap to produce and rely on initial download period (no more than 1 month after launch). We will use two advertisement networks, Chartboost and Revmob, on our application simultaneously to maximize the income. Since we intended to rely on heavy advertising, it is hypothesized that one user will give around at least 10 impressions⁸⁰ before leaving the game (2 advertisements X 5 replaying the game).

⁷⁹ Amazon (2013), *Amazon Web Services*, accessed June 2013, <http://aws.amazon.com/ec2/>

⁸⁰ number of times viewing the advertisement

Exhibit 7-3: Number of projected downloads for a re-skinned game



Source: Blue Cloud Solutions⁸¹

According to studies from other publishers, total download is estimated at 15,000 and minimum average CPM⁸² is at USD4.00⁸³. Therefore one re-skinned game should provide total revenue as below.

Exhibit 7-4: Total revenue per one re-skinned game

CPM (cost per one thousand impressions)		Two advertisement networks		Total impressions per user		Total downloads		Total Revenue per game
4 / 1000	x	2	x	10	x	15000	=	1200

Source: Author

In Startup Phase, the revenue for the first game (Thai Chess VS) is expected to be at USD300 per month as calculated in previous section. However, for the second game (Knight Out), we are unable to estimate the right figure due to a number of reasons. First, Knight Out's revenue cannot be calculated using the same technique as Thai Chess VS since the game become a lot more complex in term of revenue model. Second, revenue data of existing game in the market is not widely available. Most game applications in the market are developed by private companies which disclosing such information is not obligatory. Information of revenue from game applications that are developed by public is useless since it is on a very different scale than Ninth Idea.

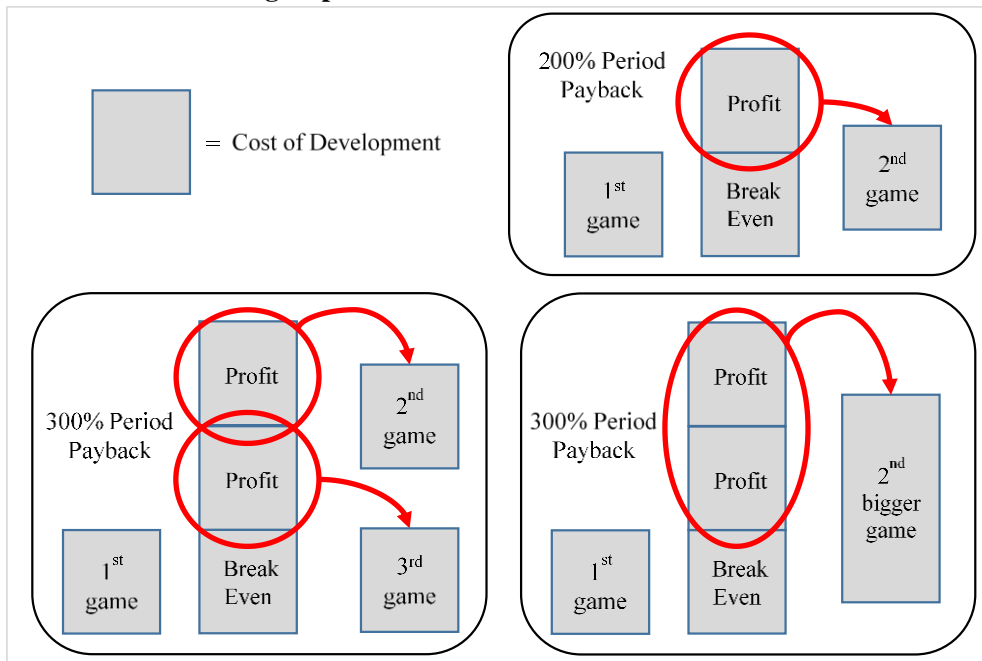
⁸¹ Thomas, C. (2013), *Android vs iOS – Development, Monetization, Marketing*, accessed June 2013, <http://www.bluecloudsolutions.com/blog/android-ios-development-monetization-marketing/>

⁸² cost per one thousand impression

⁸³ Moller, S. (2012), *How to make \$3,000 per day from advertising in your free-to-play game*, accessed June 2013, <http://www.gamesbrief.com/2012/03/how-to-make-3000-per-day-from-advertising-in-your-free-to-play-game/>

Instead of forecasting total revenue in Startup Phase, Ninth Idea will have a goal of revenue. The minimum goal will be 200% period payback with one period as six months. The reason for such a long time frame is that digital product has no ongoing cost while it is on the market. Period payback of 200% is a number that will at least ensure Ninth Idea can release another title of a similar scale with the same resources. However, in order to expand, the ideal goal period payback will be 300%.

Exhibit 7-5: Revenue goal plan



Source: Author

The first two game of Ninth Idea will take 6 months to complete and total savings from cumulative phase will allow Ninth Idea to survive for 12 months. Therefore, the timeframe allow to reach that period payback goal is the same amount of time the game took to develop. This will allow Ninth Idea to be able to determine which course of action to take after the profitability is revealed.

7.3. CASH FLOW AND BREAK EVEN ANALYSIS

7.3.1. Cumulative Phase Projection

Throughout Cumulative Phase, all the work done by founders will be part-time and without paid. Therefore, expense contains no salary. All earnings are agreed to be kept as a savings for Startup Phase. The cash flow projection for cumulative phase is described as below.

Exhibit 7-6: Cumulative phase projected monthly cash flow (USD)

Month	1	2	3	4	5	6	7	8	9	10	11	12
Initial investment*	7,000	-	-	-	-	-	-	-	-	-	-	-
Advertisement revenue**	0	1,200	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Game source-code	1,000	0	0	0	1,000	0	0	1,000	0	0	1,000	0
Game audio	0	200	400	400	400	400	400	400	400	400	400	400
Total expense	1,000	200	400	400	1,400	400	400	1,400	400	400	1,400	400
Carry Over	0	6,000	7,000	9,000	11,000	12,000	14,000	16,000	17,000	19,000	21,000	22,000
Ending Cash	6,000	7,000	9,000	11,000	12,000	14,000	16,000	17,000	19,000	21,000	22,000	24,000

Source: Author

Exhibit 7-7: Cumulative phase product development schedule

Month	1	2	3	4	5	6	7	8	9	10	11	12
New source-code acquired	1	0	0	0	1	0	0	1	0	0	1	0
Game in development	1	2	2	2	2	2	2	2	2	2	2	2
Game in the market	0	1	3	5	7	9	11	13	15	17	19	21
Total games in the market for the first month	0	1	2	2	2	2	2	2	2	2	2	2

Source: Author

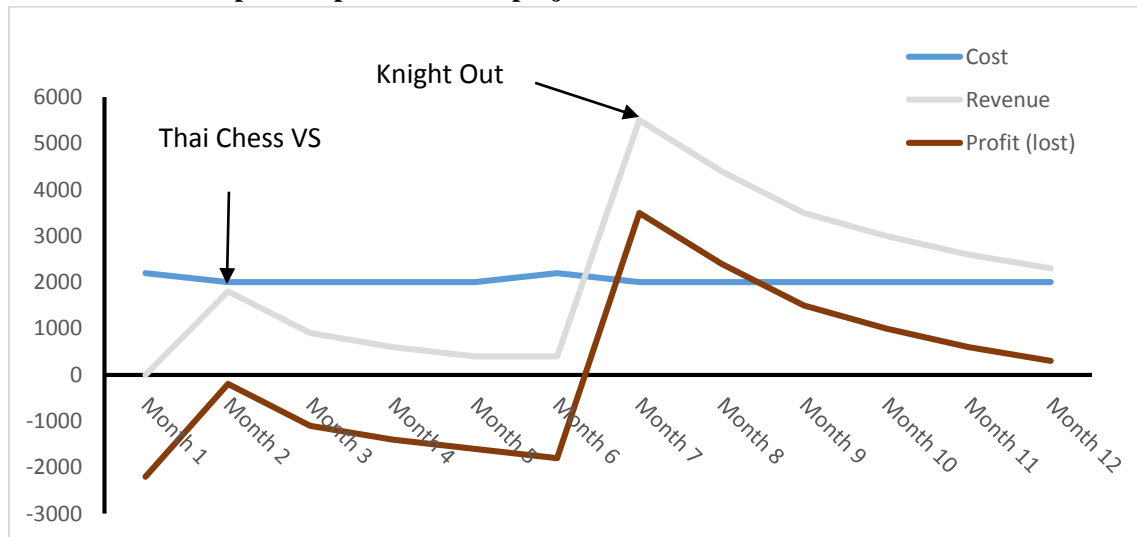
*Initial investment was financed by founders to guarantee the necessary funding for buying source-code and outsourcing audio development.

**Advertisement revenue is calculated from Total number of first month game in the market times USD 1,200 as analyzed previously.

7.3.2. Startup Phase Projection

Once the funding from Cumulative Phase reach USD 24,000 (which is a salary of both founders for one year), Ninth Idea will commence Startup Phase. In order to calculate the required cash flow for Startup Phase, we have to look at the cost of each product to generate expected goal of 200% period payback. Thai Chess VS cost at USD 2,200 and Knight Out cost at USD 10, 200. Therefore, the expected payback will be USD 4,400 and USD 20,400 respectively throughout six months after initial release. Below is the chart explaining the forecasted cash flow for Ninth Idea during the first year of Startup Phase.

Exhibit 7-8: Startup Phase profit and loss projection



Source: Author

Since there is no raw material in game product, the cost of production is constant. Therefore, profit/loss mostly goes together with the revenue. The spike in revenue comes from the launch of a new product. According to the interviewees, games sales peak at the beginning and then wane down rather than gradually growing up like the sales of traditional physical product. Therefore, Ninth Idea has to periodically release new game in order to maintain profitability. Another way to maintain the revenue is to retain users from stop playing the game. As mentioned in the 15 rules of Free-to-Play games, “game development never ends”. Ninth Idea can retain players by providing constant updates with new content for players. This strategy will require more human resources but also gives a long run revenue for Ninth Idea. On the next page is an explanation of Startup Phase projected cash flow.

Exhibit 7-9: Startup phase projected monthly cash flow (USD)

Month	1	2	3	4	5	6	7	8	9	10	11	12
Initial funding*	24,000	-	-	-	-	-	-	-	-	-	-	-
Revenue from Thai Chess VS	0	1,800	900	600	400	400	300	200	100	100	100	100
Revenue from Knight Out	0	0	0	0	0	0	5,200	4,200	3,400	2,900	2,500	2,200
Total Revenue**	0	1,800	900	600	400	400	5,500	4,400	3,500	3,000	2,600	2,300
Programmer Salary	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Artist Salary	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Audio Outsource	200	0	0	0	0	200	0	0	0	0	0	0
Total expense	2,200	2,000	2,000	2,000	2,000	2,200	2,000	2,000	2,000	2,000	2,000	2,000
Carry Over	0	21,800	21,600	20,500	19,100	17,500	15,700	14,000	12,200	10,300	8,400	6,500
Ending Cash	21,800	21,600	20,500	19,100	17,500	15,700	14,000	12,200	10,300	8,400	6,500	4,600

Source: Author

*Initial investment is from Cumulative phase to ensure smooth production and survivability of both founders.

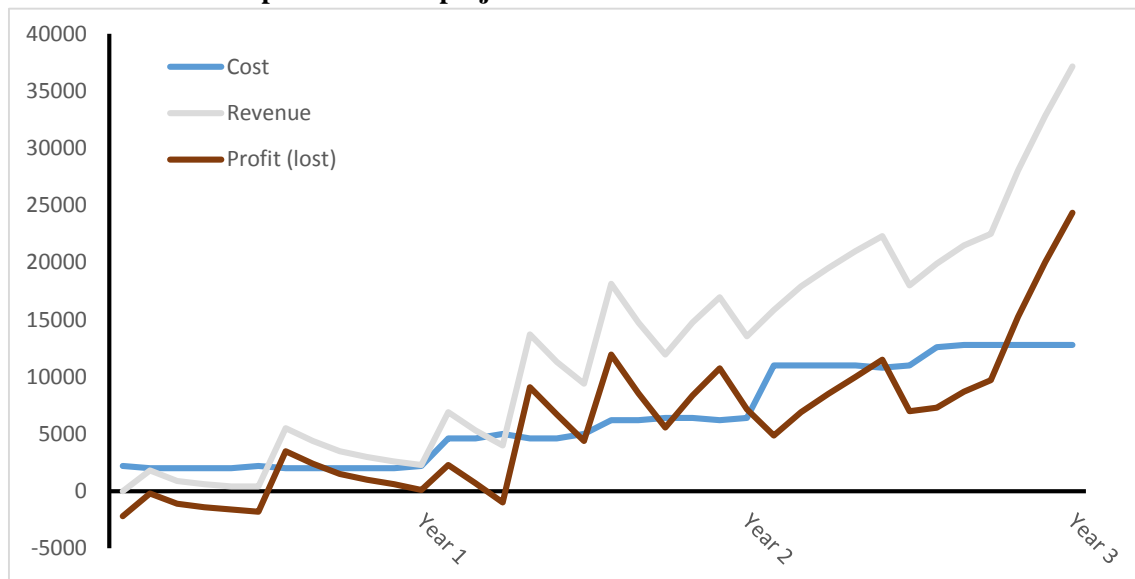
**Revenue is calculated from the goal of 200% period payback of 6 months after initial release.

The projected cash flow is under the assumption of having only two products in the pipeline. The last product of the first year should come out in the last month. It will not be describe in this document. The product specification mostly depends on the reception and feedback of the first two games.

7.3.3. Future Phase Projection

After one year in Startup Phase, Ninth Idea has to decide the next plan for the business. The decision will be based on the key point of 200% period payback. Because without 200% period payback, Ninth Idea will run out of money and unable to continue its operation. The loan can be made if a new viable business plan came up. On the other hand, if Ninth Idea can achieve 200% period payback within the first year, many possibilities for the company will be opened up. The most obvious option is to hire more people. New developers can be assigned to work on different projects in parallel or create contents for existing project. Ninth Idea can also expand to another platform such as PC or consoles since cost of marketing is higher and require more resource, which is then available. Below is the projection if Ninth Idea is successful in Startup Phase and moving on to Future Phase.

Exhibit 7-10: Future profit and loss projection



Source: Author

In the future, Ninth Idea plans to release the game more frequently with more staff to reduce revenue spike and risk of unsuccessful game. Other factors can also disrupt this forecast such as, updates of the successful game will make the graph less spiked or a failure product that will reduce revenue. It has to be reminded that game industry is a very fast moving industry. Forecasting into a far future may not be possible. But the industry itself also allows flexibility in adaptation. Therefore, trial and error is a strategy that Ninth Idea will follow to maximize the profit of the company.

CHAPTER 8. CONCLUSION

This study has showed that there is a high possibility for “Ninth Idea”, author’s company, in starting up a successful business in mobile gaming industry. Three reasons for going into mobile gaming business are, low entry barrier, very large market and high purchasing power buyer. The study on Ninth Idea readiness has shown that founders’ extensive network in the industry is sufficient for acquiring human resources for game development. In term of financial support, Thailand government helps in securing a loan for a startup software company.

In the current stage of game industry, mobile game revenue heavily relies in In-App-Purchase (IAP). Consumers are now less likely to pay upfront for game application. From the survey, they are likely to pay for extra contents once downloaded a free game. And the focus for mobile game company is to expand its user base to increase the amount of paying customer, which relies on customer recommendation to their friends. Among multiple mobile platforms, Android currently holds the largest global market share follows by iOS. However, there are numerous limitations regarding developing application for Android such as fragmentation of device specification.

With all the information gathered, Ninth Idea proposes a system called CAIS to be market differentiator. CAIS (Cross Application Item System) is a model where it will let item purchased to be able to use in other games. This will dramatically add the value to IAP for customer since it can be used within more than one game. CAIS will also generate network effect where customer will be persuaded to download another game to use the purchased item, which will expand our user base. However, CAIS will only be successful with a large library of games in the system. Therefore, three phases of business plan are proposed to reach that goal.

The first phase is “Cumulative Phase” where the focus is to gather a large amount of money with few human resources by releasing low quality game. The main revenue will be advertisement which will be very aggressive to the customer. Hence, all product launch in this phase will be under a different name. Ninth Idea will move on to the next phase of “Startup Phase” when enough money for funding a bigger, higher quality product is collected.

In Startup Phase, Ninth Idea will develop and publish games as describe in this thesis. The first game will be a test product where Ninth Idea will learn the necessary process of producing its own game from scratch. After that, the second game with more mainstream content and higher quality will be launched. Ninth Idea will track both performances using period payback as a measurement to determine its next course of action in the future phase. The goal period payback will be 200% of six months as one period after the product is released. If the goal is not reached, the end of this phase will be the right time for Ninth Idea to exit the market. On the other hand, Ninth Idea will start implementing CAIS system to use with future product of Ninth Idea if the goal is reached. Even though, CAIS can be imitated by bigger company. It is hoped that existing players do not wish to do so due to the possibility of losing their existing revenue source.

Ninth Idea aims to survive in a market where it is constantly growing and changing. With low entry barrier, more and more competitors are entering the market. It is very difficult to determine everything beforehand. This thesis provides most of the information that can be prepared before entering the market. But other information regarding the market must be tested along the way. Ninth Idea will be adaptive and adjust its product alongside this ever-changing market. Its ultimate goal is to be recognized as a top game company from Thailand.

REFERENCES

- [1] Adecco (2012), Adecco Thailand Salary Guide 2013, accessed March 2013, <http://www.adecco.co.th/Adecco-Thailand-SalaryGuide-2013/Page-32.html>
- [2] Alex, I, (2011), History of mobile gaming, accessed February 2013, http://www.phonearena.com/news/History-of-mobile-gaming_id17949
- [3] Amazon (2013), Amazon Web Services, accessed June 2013, <http://aws.amazon.com/ec2/>
- [4] Andrew, K (2011). Average spend per smartphone IAP transaction is \$14 reckons Flurry, accessed March 2013, <http://www.pocketgamer.biz/r/PG.Biz/Flurry/news.asp?c=31810>
- [5] Androidguys (2013), A brief history of Android smartphone display resolutions , accessed May 2013, <http://www.androidguys.com/2013/01/25/android-mobile-display-resolutions/>
- [6] App Annie (2011). The Importance of Localization in App Stores. App Annie Blog, accessed April 2013, <http://blog.appannie.com/localization-entry/>
- [7] AppAnnie (2013), App Annie Appstore Data United States, accessed March 2013, <http://www.appannie.com/top/iphone/united-states/games/?date=2013-02-04#>
- [8] Apple (2013), App Store Review Guidelines, accessed June 2013, <https://developer.apple.com/appstore/resources/approval/guidelines.htm>
- [9] Apple (2013), iOS developer program, accessed March 2013, <https://developer.apple.com/programs/ios/>
- [10] Apptopia (2013). The Marketplace for Brokering Acquisitions of Mobile Apps, accessed March 2013, <https://www.apptopia.com/>
- [11] Bangkokpost (2012). Smartphones to make up half Thai market this year, accessed March 2013, <http://www.bangkokpost.com/tech/gadget/329704/smartphones-to-make-up-half-thai-market-this-year>
- [12] Bank of Thailand, (2012). Interest Rates in Financial Market (2005-present), accessed February 2013, <http://www2.bot.or.th/statistics/BOTWEBSTAT.aspx?reportID=223&language=ENG>
- [13] Bellis, M, (2012), Computer and Video Game History, accessed December 2012, http://inventors.about.com/library/inventors/blcomputer_videogames.htm
- [14] Blackberry (2013), Blackberry world developer, accessed March 2013, <http://developer.blackberry.com/blackberryworld/>
- [15] Blake Snow (2007), The 10 Worst-Selling Handhelds of All Time, accessed January 2013, <http://web.archive.org/web/20071012194600/http://gamepro.com/gamepro/domestic/games/features/125748.shtml>
- [16] Blake Snow (2009), Sony tries to boost PS3 development with dev kit price cut, accessed March 2013, <http://arstechnica.com/gaming/2009/03/sony-announces-lower-cost-ps3-dev-tools/>
- [17] Byford, S (2012), Despite 'Black Ops II,' 'Halo 4,' and Wii U, video game sales continue to slip, accessed February 2013, <http://www.theverge.com/2012/12/6/3737792/npd-video-game-sales-november-2012>
- [18] Byford, S (2012), 'Punch Quest' goes paid after free-to-play failure. Theverge, accessed April 2013, <http://www.theverge.com/2012/11/14/3647410/punch-quest-goes-paid-after-free-to-play-failure>
- [19] Carter, T (2012). Making Money With Apps – Turn \$1,000 into \$200,000. Blue Cloud Solution, accessed March 2013, <http://www.bluecloudsolutions.com/blog/money-apps-turn-1k-200k-portfolio/>

- [20] Clarke, S (2012). Serialised Storytelling: A Changing Landscape, accessed April 2013, <http://www.ign.com/articles/2012/12/29/serialised-storytelling-a-changing-landscape>
- [21] Cocotas, A, Blodget, H (2012), THE FUTURE OF MOBILE, accessed May 2013, <http://www.businessinsider.com/the-future-of-mobile-deck-2012-3?op=1>
- [22] Cocotas, A, Blodget, H (2012), THE FUTURE OF MOBILE, accessed May 2013, <http://www.businessinsider.com/the-future-of-mobile-deck-2012-3?op=1>
- [23] Conley, W, (2012). How to compare crowdfunding websites, accessed February 2013, http://www.ehow.com/how_6935134_compare-crowdfunding-websites.html
- [24] Consalvo, Mia (2006). Console video games and global corporations: Creating a hybrid culture, accessed January 2013, <http://web.archive.org/web/20080228191914/http://intl-nms.sagepub.com/cgi/reprint/8/1/117.pdf>
- [25] Dhammashop (2013), Thai Chess Wood Carving Traditional Board Game Travel Set Chess Collector, accessed April 2013, <http://www.ebay.com/itm/Thai-Chess-Wood-CarvingTraditional-Board-Game-Travel-Set-World-Chess-Collector-/200767959904>
- [26] Double Fine Production, (2012), accessed February 2013, <http://www.kickstarter.com/projects/doublefine/double-fine-adventure>
- [27] Eldon, E (2010). Measurement Firms Don't Agree on January 2010 Traffic for Facebook, MySpace and Twitter, accessed April 2013, <http://www.insidefacebook.com/2010/02/24/measurement-firms-dont-agree-on-january-2010-traffic-for-facebook-myspace-and-twitter/>
- [28] Everett M. Rogers & Judith K. Larsen (1984), Silicon Valley fever: growth of high-technology culture
- [29] Flurry (2013). Consumers Spend Average of \$14 per Transaction in iOS and Android Freemium Games, accessed March 2013, <http://blog.flurry.com/bid/67748/Consumers-Spend-Average-of-14-per-Transaction-in-iOS-and-Android-Freemium-Games>
- [30] Gaebler Venture, (2012). Crowd funding disadvantages, accessed February 2013, <http://www.gaebler.com/Crowd-Funding-Disadvantages.htm>
- [31] Google, Android (2013), Get Started with Publishing, accessed March 2013, <http://developer.android.com/distribute/googleplay/publish/register.html>
- [32] Google, Inc. (2013), Developer Dashboard, accessed May 2013, <http://developer.android.com/about/dashboards/index.html>
- [33] Grewal, D. Levy, M (2010) Marketing Second Edition. McGraw-Hill/Irwin. NY.
- [34] Hodapp, E (2010), iPhone Developer PSA, accessed April 2013, <http://a-13.net/post/98060270/iphone-developer-psa>
- [35] Hollington, J (2010), Report: Games are 58% of App Store, puzzles top genre, accessed March 2013, <http://www.ilounge.com/index.php/news/comments/report-games-are-58-of-app-store-puzzles-top-genre/>
- [36] Kickstarter (2013), FAQ: Creator Questions, accessed June 2013, <http://www.kickstarter.com/help/faq/creator+questions#GettStar>
- [37] Koetsier, J (2012), Android captured almost 70% global smartphone market share in 2012, Apple just under 20%, accessed May 2013, <http://venturebeat.com/2013/01/28/android-captured-almost-70-global-smartphone-market-share-in-2012-apple-just-under-20/>
- [38] Krishnakanthan, K (2013), Getting into your customers' heads: An interview with the COO of EA Labels, accessed February 2013, https://www.mckinseyquarterly.com/Business_Technology/BT_Organization/Getting_into_your_customers_heads_An_interview_with_the_COO_of_Electronic_Arts_Labels_3043

- [39] Llopis, N (2012). One Price Does Not Fit All, accessed March 2013, <http://gamesfromwithin.com/one-price-does-not-fit-all>
- [40] Lomas, N (2013), Windows 8 Wins 7.4% Share Of Global Tablet OS Market In Q1 — “Niche” Portion Still Beats Windows Phone’s Smartphone Share, accessed May 2013, <http://techcrunch.com/2013/04/25/strategy-analytics-q1-tablet-stats/>
- [41] Lovell, N (2010). How to Publish a Game. Gamesbrief. London.
- [42] Lovell, N. Fahey, R. (2012). Design Rules for Free-to-Play Games. Gamesbrief. London.
- [43] Luden, I (2012). The No. Of Smartphones In Use Passed 1 Billion, accessed March 2013, <http://techcrunch.com/2012/10/16/mobile-milestone-the-number-of-smartphones-in-use-passed-1-billion-in-q3-says-strategy-analytics/>
- [44] Mailchimp (2013), How To Avoid Spam Filters, accessed April 2013, <http://mailchimp.com/resources/guides/html/how-to-avoid-spam-filters/>
- [45] Marchas, D (2009), An interview with Dan Marshall of Zombie Cow Studios, accessed April 2013, <http://britishindie.com/2009/08/zombie-cow-interview/>
- [46] Mary, K (2013). Marketing for indie games, accessed June 2013, <http://indieviddy.com/>
- [47] Microsoft (2013), Windows phone dev center, accessed March 2013, [http://msdn.microsoft.com/library/windowsphone/help/jj206719\(v=vs.105\).aspx](http://msdn.microsoft.com/library/windowsphone/help/jj206719(v=vs.105).aspx)
- [48] Moller, S. (2012), How to make \$3,000 per day from advertising in your free-to-play game , accessed June 2013, <http://www.gamesbrief.com/2012/03/how-to-make-3000-per-day-from-advertising-in-your-free-to-play-game/>
- [49] Naraphim M. (2013), Naraphim’s DeviantArt Gallery, accessed June 2013, <http://naraphim.deviantart.com/gallery/>
- [50] Naver, Japan (2013), Line, accessed June 2013, <http://line.naver.jp/en/>
- [51] Nelson, J (2012), Amid Slumping Revenue, 'Punch Quest' Switches to a Paid Game. TouchArcade, accessed April 2013, <http://toucharcade.com/2012/11/14/amid-slumping-revenue-punch-quest-switches-to-a-paid-game/>
- [52] Nintendo of America Inc. (2013). To become an Authorized Developer for Nintendo game platforms:, accessed March 2013, <http://www.warioworld.com/apply/>
- [53] Ninth Idea (2011), Knight Out for Blackberry Playbook. Blackberry App World.
- [54] Optime Software LLC (2013), Chess Free for iOS devices
- [55] Oracle cloud (2012), Using Social Gaming to Drive Engagement, accessed March 2013, <http://www.oracle.com/us/products/social-gaming-for-engagement-1841595.pdf>
- [56] P, Tanya (2012), What Is Crowdfunding And How Does It Benefit The Economy, accessed February 2013, <http://www.forbes.com/sites/tanyaprive/2012/11/27/what-is-crowdfunding-and-how-does-it-benefit-the-economy/>
- [57] Pong Story, Pong in a Chip, accessed December 2012, <http://www.pong-story.com/gi.htm>
- [58] PwC Global (2013), Online/wireless games overtake console/PC games in 2013, accessed March 2013, <http://www.pwc.com/gx/en/global-entertainment-media-outlook/segment-insights/video-games.jhtml>
- [59] PwC Global (2013), Online/wireless games overtake console/PC games in 2013, accessed March 2013, <http://www.pwc.com/gx/en/global-entertainment-media-outlook/segment-insights/video-games.jhtml>
- [60] Raji, V (2012). Introducing New Mobile Ads for Apps. Facebook Developer Blog, accessed April 2013, <https://developers.facebook.com/blog/post/2012/08/07/introducing-new-mobile-ads-for-apps/>
- [61] Retro Gamer, (2007) The Definitive Space Invaders, accessed December 2012, http://www.nowgamer.com/features/894697/the_definitive_space_invaders_part_1.html

- [62] Revmob Review (2013). RevMob vs. Chartboost – A Side by Side Comparison, accessed March 2013, <http://www.revmobreview.com/networks/revmob-vs-chartboost-a-side-by-side-comparison/>
- [63] Richard, B. (1996), Hearts, Clubs, Diamonds, Spades: Players Who suit MUDs, accessed April 2013, <http://www.mud.co.uk/richard/hcdfs.htm>
- [64] Rocketcat Games (2013), Punch Quest, accessed April 2013, <https://itunes.apple.com/us/app/punch-quest/id554223561?mt=8>
- [65] Rockvill, MD (2012), Market Research Projects Smartphone Market Growth at 19% CAGR, accessed May 2013, <http://www.marketresearch.com/IDC-v2477/Worldwide-Smartphone-Forecast-6881762/>
- [66] Rovio Entertainment (2013), Angry Birds Shop, accessed March 2013, <http://shop.angrybirds.com/>
- [67] Rovio Mobile Ltd. (2013), Angry Birds Star Wars: Google Play Store, accessed June 2013, <https://play.google.com/store/apps/details?id=com.rovio.angrybirdsstarwars.ads.iap>
- [68] Schwarts, B (2010), Google AdWords Click Through Rates: 2% is Average But Double Digits is Great, accessed April 2013, <http://www.seroundtable.com/archives/021514.html>
- [69] SIPA, (2012), SIPA Short-term road map, accessed February 2013, <http://en.sipa.or.th/main.php?filename=index1>
- [70] SIPA, (2012), SME Loans for Thai software enterprise program, accessed February 2013, <http://sme.sipa.or.th/>
- [71] SIPA, (2012). Investment support for SIPA and BOI program, accessed February 2013, http://www.sipa.or.th/ewt_news.php?nid=708&filename=index
- [72] Smith, D (2013), iOS Version Stats, accessed May 2013, <http://david-smith.org/iosversionstats/>
- [73] Stewart, B. (2011), Personality And Play Styles: A Unified Model, accessed June 2013, http://www.gamasutra.com/view/feature/6474/personality_and_play_styles_a_.php
- [74] Supercell (2013), Clash of Clans, accessed April 2013, <https://twitter.com/TheClashOfClans>
- [75] Supercell (2013), Clash of Clans, accessed April 2013, <https://www.facebook.com/ClashofClans>
- [76] Thai Game Developers Corner TGDC (2013), Thai Game Developers Corner, accessed June 2013, <https://www.facebook.com/groups/thaigamepad/>
- [77] Thomas, C. (2013), Android vs iOS – Development, Monetization, Marketing, accessed June 2013, <http://www.bluecloudsolutions.com/blog/android-ios-development-monetization-marketing/>
- [78] Wagstaff, K. (2012), Smartphone outnumbered feature phones in U.S., accessed March 2013, <http://techland.time.com/2012/03/01/smartphones-outnumber-feature-phones-in-u-s-for-first-time/>
- [79] Wordspy, (2008). Crowdfunding, accessed February 2013, <http://www.wordspy.com/words/crowdfunding.asp>

APPENDIX 1: 15 DESIGN RULES FOR FREE-TO-PLAY GAMES

Below are the 15 rules according to Lovell, a game marketing consultant creator of website gamesbrief. The rules are excerpted from <http://www.gamesbrief.com/rules/>.

Rule 1: Make it Fun

To make a successful free-to-play game, you need to get players into your game (Acquisition), you need to keep them in the game (Retention), and you need to make them enjoy it enough that they are prepared to spend money on things that they value (Monetization). And fun is an important factor to achieve all the above.

Rule 2: The Starbucks test

A critical consideration for any game being designed for a smartphone or tablet is to provide a meaningful experience within the first few minutes, or a short loop. A short loop is an experience that you complete and have fun with in short period of time. The game must have an experience that will draw people back again and again because they think it will only take a short time to achieve something

Rule 3: Come for a minute, stay for an hour

After a short loop, a game need to have another technique to retain the players. The game has to have another tight compulsion loop at the heart of the game such as plant the crops, wait and then harvest. Some games use leaderboard to let players keep competing with others endlessly.

Rule 4: Complexity in layers

Free-to-play games need to be accessible. That doesn't mean that they have to be simple. The game need to be simple to play but has depth and complexity that the player can unlock if they wish to. Every player makes progress, just by turning up. But a dedicated player, who keeps trying to learn and improve, is rewarded with increased complexity.

Rule 5: The importance of never ending

Arcade-style games such as endless runners or Match-3 puzzles have replayability, since they are designed to engender a "just one more go" feeling in the players. However, simple replayability is not enough on its own, either. The game needs an element of persistence or social value. The secret is,

as always, to put yourself in the mindset of a player. If the player reaches the end of a game and is asked to start again, what elements that they have purchased need to be carried over into the new game to avoid them feeling annoyed with you and the game?

Rule 6: Be generous

If you are generous, people will be more likely to tell their friends about your game. If you slam down a paywall early, they are more likely just to click away or uninstall. Being generous with premium currency encourages players to spend the currency, not hoard it. If a premium currency becomes, in the player's mind, an endless rising score, they will be reluctant to spend it. This is not good for your monetization.

Rule 7: Be Free-to-Play forever

As long as a player is playing your game, you have a chance to monetize them. You don't if you have kicked them out. The criticism of your aggressive monetization strategies won't be there, improving your public image and word-of-mouth virality. And you get the opportunity to experiment with what players will pay for, and allowing different players to pay for different things: aesthetics, customization, progress, time-for-money, power and so on.

Rule 8: The no-brainer first dollar

For a player, the decision to spend for the first time is a momentous one. The game they are playing will move from being a free game to being a paid-for game. You need to think hard about what will motivate a player to spend that all important first dollar. The objective of this no-brainer first dollar is to get the player to spend for the first time, not to maximize revenue. It should be cheap, optional, and really good value (e.g. something that helps the player forever).

Rule 9: Make it possible to spend \$100

The secret of success of a free-to-play game is not about getting a little money from lots of people: it is about getting a lot of money from the players who love what you do. True fans in free-to-play games will spend a lot of money, and you need to make it possible for them to do so. You also need to bear in mind that not every player will spend for the same reasons. Some will spend for aesthetics. Some will spend to level up faster.

Rule 10: Have pizzazz, not polish

Traditional game developers focus on polish, which does not encourage spending. Pizzazz rewards the player at an emotional level. It says “well done. You’ve got something right”. A good free-to-play designer looks for things that they want the player to do, and makes sure that there are rewarded – practically, emotionally, visually, and aurally.

Rule 11: Kill the tutorial

Your tutorial is my first experience of your game. I haven’t spent \$40 on your game. I have no “sunk cost” that will carry me through twenty minutes of dull exposition, plot or explanations of how to use the controls. In those first few minutes, you have to convince me, body and soul, that this is game is worth investing my precious time in.

Rule 12: I must not fail

Free-to-play games are all about success. If you want a free-to-play gamer to stick around, they need to feel that they are getting the hang of your game very quickly. You need to build an emotional journey that keeps players learning, and enjoying the process. Your objective, in a free-to-play game, is to get players to like you. Don’t set them up to fail.

Rule 13: Sell emotion, not content

Now that digital distribution has made it incredibly cheap to share content on the web, consumers are increasingly refusing to pay for it. In the world of free-to-play, you are competing with tens of thousands of games that are totally free to play. In that world, you aren’t charging for content; you are charging for emotion.

Rule 14: Experiment and learn

The market is changing incredibly rapidly. We now work in an industry beset by creative uncertainty, technology uncertainty and business model uncertainty. The key to experimenting often and surviving the failures is to reduce the scope of the project that you are building.

Rule 15: Game development never ends

The hardest part of making a free-to-play game is finding an engaged audience for your experience. Once you have got those customers, keep offering them more.

APPENDIX 2: GAME CONSUMER BEHAVIOR QUESTIONNAIRE

Q1 Gender

- Male
- Female

Q2 Age

Q3 Education

- Elementary School
- Middle School
- High School
- College
- Bachelor's Degree
- Master's Degree
- Doctorate

Q4 Occupation

Q5 Monthly Income (USD)

- Less than 50
- 51-100
- 101-200
- 201-500
- 501-1,000
- 1,001-2,000
- 2,001-3,000
- 3,001-4,000
- 4,001-5,000
- 5,001-6,000
- 6,001-7,000
- More than 7,000

Q6 Nationality

Q7 Country of residence

Q8 What kind of mobile device do you play your game on? (Choose all applicable)

- iPhone
- iPod touch
- iPad
- Android Phone
- Android Tablet
- Blackberry Phone
- Windows Phone
- Other _____

Q9 When do you play game on mobile phone most?

- At home
- During commute
- Using toilet
- Waiting outside
- Other _____

Q10 How long do you usually play mobile game in one session?

- Less than 5 minutes
- 5-10 minutes
- 10-30 minutes
- 30-60 minutes
- 1-2 hours
- 2-3 hours
- 3-4 hours
- more than 4 hours

Q11 How often do you play mobile game per day?

- 1-5 times
- 6-10 times
- 11-15 times
- 16-20 times
- more than 20 times

Q12 How long do you usually play non-mobile game (PC, Playstation, etc) in one session?

- Not playing
- Less than 5 minutes
- 5-10 minutes
- 10-30 minutes
- 30-60 minutes
- 1-2 hours
- 2-3 hours
- 3-4 hours
- more than 4 hours

Q13 Do you play multi-player game on mobile phone?

- Yes
- No

Q14 Who do you prefer to play multi-player game against?

- Friends
- Online-players around the world

Q15 How did you found out about new game you are playing?

- Friends tell you to try
- Automated social network features (wall post, notification, invites)
- Reading from game review websites
- Advertisement
- Other _____

Q16 What genre of game do you play on the mobile device?

- RPG (Final Fantasy)
- Fighting (Street Fighter)
- Platformer (Super Mario)
- Puzzle (Bejeweled)
- Action (Angry Birds)
- Music-based (Rhythm Game)
- Strategy (Plant VS Zombies)
- Adventure (Temple Run)
- Other _____

Q17 What would be the reason for you to spend money on games?

- _____ To buy the game (Without free trial version)
- _____ To buy the game (After trying the free version)
- _____ To play more often (in games that you have to wait to play again)
- _____ To unlock more content in games (Extra stages)
- _____ To make the gameplay easier (Special items)
- _____ To gain advantage over your opponents
- _____ To get better high score
- _____ To show-off to your friend
- _____ Other

Q18 If you are to spend money on game, what genre of game do you think you will be paying?

- RPG (Final Fantasy)
- Fighting (Street Fighter)
- Platformer (Super Mario)
- Puzzle (Bejeweled)
- Action (Angry Birds)
- Music-based (Rhythm Game)
- Strategy (Plant VS Zombies)
- Adventure (Temple Run)
- Other _____

Q19 If you have enough money to pay for gaming, but you won't. What would be the reason?

Q20 Have you ever use real money to pay for gaming on mobile device?

- Yes
- No

Q21 How much do you spend EACH TIME for gaming (USD)?

- Less than 1.00
- 1.00-2.99
- 3.00-4.99
- 5.00-9.99
- 10.00-19.99
- 20.00-29.99
- 30.00 or more

Q22 How often do you spend money for gaming?

- Many times a day
- Once a day
- Once every few days
- Once a week
- Once a month
- Once every few months
- Once a year
- Once every few years
- Other_____