DIFFUSION OF INNOVATION: A STUDY OF HOW MOBILE PHONE GAMES PROPAGATE



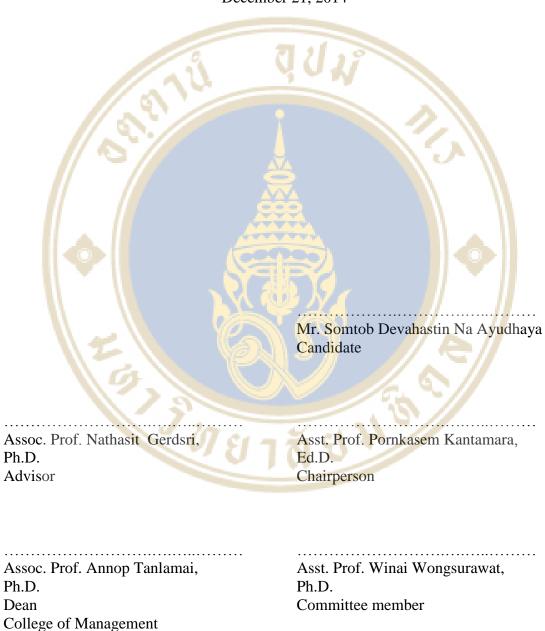
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ST ST E

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ABSTRACT

Mobile phone game industry is growing at a fast rate; this was due to the part of the explosive growth of smartphone usage around the world and the low barrier of entry for the game developers to publish their games. There are around 200,000 games on the App Store in 2014 and this is expected to rise in the future, however a smartphone user on average only install around 41 apps on their phone. With so much competition vying for the limited attention of the smartphone user, one must ask: what influence a user to choose a game over the others? Hence, this study was conducted to find out what criteria a customer uses in purchasing or downloading a mobile phone game and what influences them to do so. This paper will explore the factors that effect to customer while they make decision on whether or not to download the game. The data was collected by an interview with 9 respondents who are in the age group of 25-30 years old.

The result from the interview determines that customers behaviors toward games, the game rankings in the App Store, and the news aggregator sites plays a role that affect customer purchasing/downloading intention for a game. From the information gathered from the interview and from the research, a model can be developed to explain how a game can propagate into the population of gamer after it is released.

KEY WORDS: Diffusion of Innovation/Game App Marketing/Mobile Phone Games

31 pages

CONTENTS

		Page
ACKNOWLED	GEMENTS	ii
ABSTRACT		iii
CONTENTS	0 71.0	iv
LIST OF TABI	LES	v
CHAPTER I	INTRODUCTION	6
1.1	The Historical and the Present State of Mobile Game	6
Industry		
1.2	The Problem Statement	8
1.3	The Focus of Study	9
CHAPTER II	LITERATURE REVIEW	10
2.1	Defining the Relationship Between Price and the Value of Product	10
2.2	Defining Diffusion of Innovation	11
2.3	Defining Core and Casual Gamers	12
2.4	The Framework	13
CHAPTER III	RESEARCH METHODOLOGY	14
CHAPTER IV	2.2 Defining Diffusion of Innovation 2.3 Defining Core and Casual Gamers 2.4 The Framework 11	
4.1	Profile of Core Gamers	19
4.2	Profile of Casual Gamers	20
4.3	Profile of Occasional Gamers	20
4.4	Base Gamer Profile	20
4.5	The Framework of Mobile Phone Game Diffusion	21
CHAPTER V	CONCLUSION AND RECOMMENDATIONS	24
5.1	Recommendations	25
5.2	Conclusion	25
5.3	Limitation and Future Researches	25

List of Figures

Figures		Page
2.1	How a new game diffuses into the market	14
4.1	Gamer's type in relation with adopters	18
4.2	The final model of how a game diffuses into the market	23



CHAPTER I INTRODUCTION

1.1 The Historical and the Present State of Mobile Game Industry

The game industry began in the 1970s with the introduction of an arcade game called Pong and from then has grown into a multi-billion dollars industry as of 2013. (Entertainment Software Association, 2012) Although the game industry started in the 1970s with people programming games for the arcade game cabinets, personal computers, and dedicated console gaming machine, it was not until the early 1990s that the first game were created for the mobile phone. (Entertianment Software Association, 2012) One of the first game that was successful in the mobile game industry was 'Snake' a simple game where the player control a snake, that grows in length as the snake hit a dot, and try to avoid hitting itself; this can be attributed to it being pre-loaded onto all of the Nokia phones in the 1990s. (Entertainment Software Association, 2012) In the early 2000s, the mobile phone hardware capabilities and the software framework improved to a point that allows more complex games to be programmed on it, more and more game developers and publishers began to see the lure of the mobile phone gaming market. (Entertainment Software Association, 2012) During the years 2000 to 2007 although the development of a game on mobile phones were relatively cheap, the game distribution to the end-user of mobile phone was the solely control by telecommunication company or operators, these operators prefer to deal with large company such as game publishers and therefore most of the profits goes to the operators and publishers hence limiting the growth of the mobile phone games. (Noyon, MacQueen, Johnstone, Robertson, Palm, Point, & Behrmann, 2012)

In 2008, with the introduction of iPhone and the AppStore, the developers can develop games with limited budget and can self-publish their games directly to the customers, thus removing the middle-man such as the game developer and the Telco operators.(Noyon, MacQueen, Johnstone, Robertson, Palm, Point, & Behrmann, 2012) This cause an explosion in growth in the mobile game industry, with approximately 20% of the apps in the App Store are games.(www.pocketgamer.biz, 2014) Recently,

with the introduction of Android phones, and the introduction of cheap smartphones, the number of smartphones users and gamers are on the rise as more people are able to afford a smartphone. The mobile phone gaming industry is expected to grow along with the growing number of smartphone users, it is estimated that by the year 2017 the market size for the mobile phone gaming industry is going to be 14.74 Billion Dollars.(Entertainment Software Association, 2014) Here are some statistics about the growth of the mobile phone gaming market (Galarneau, 2014):

- 91% of all people on earth have a mobile phone.
- 56% of people own a smart phone.
- 50% of mobile phone users use mobile as their primary Internet source.
- 80% of time on mobile is spent on apps.
- 36% of that time is spent on games.

From the statistics above, it is easy to think that anyone entering the mobile phone game industry is going to at least make some money. But the truth is the opposite, entering the mobile game industry is easy but thriving in it is another story. I believed that there are three major factors that affect the success of the game in this market:

- 1. App quality: the quality of the apps will affect the user's experience, a bad application means user are likely to just delete it. According to an article in TechCrunch, based a study done in quarter 3 in 2010, Localytics a Massachusetts-based application analytics firm found that 26% of the apps loaded by the users will be ran only once and then deleted. (Empson, 2011) According to another article in TechCrunch, 79% of the users who experienced an error in the app, such as apps crashing or app not launching, will try to open the app again only once to see if it works or not, if they encounter the error again then they will delete the apps. (Perez, 2013)
- 2. User engagement towards the app: how can a mobile game retain the user? According to a study done by Flurry, an app analytic firm, most of the games that retain mobile phone user past 90 days in 2014 on Android devices are Solitaire games, Casino games, Brain/Quiz games, and Social games.(Lincoln, 2014) Another study done by

Flurry said that once a game reached their peak and no longer able to retain the users, the activities will decline by half within 3 months (Lincoln, 2014), this means that once the user loses interest of the game, then it only takes a few months to lose all the customers.

3. App discovery: the problem with the mobile gaming market is that the barrier of entry is very low. Unlike in the pre-2007 era where the publishers filtered out most of the developers from entering the mobile game market, nowadays almost anyone with the right development tools can enter the market. As shown in the statistics, currently there are around 200,000 games on the app stores (www.pocketgamer.biz, 2014) and according to the user statistics found by Nielsen, in 2012 on average users have only 41 apps on their phones however this is a growing trend as in 2011 it was 32 (The Nielsen Company, 2012). The point is user will have less than a 100 apps on their phones and not all of the games will occupy that spot and that is the one of the problem that app developer is going to face. Another analytic firm Adeven, reported that two thirds of the apps in the App Store are never downloaded. (Meyer, 2012)

1.2 The Problem Statement

As the barrier of entry to the app market is very low, we will keep seeing more and more new apps being uploaded daily as more and more developers try to enter the market. With the apps count reaching over 200,000 games and increasing in the App Store, the chance that your app is going to be discovered is going to be small. As one of the aspiring game developer, I find this point to be very critical to the success of the developer, as if no one download your game, no matter how well its made, you would have wasted your time and money in making the games with very few returns on investment. This paper will attempt to answer some of the question regarding what make a user choose the game from amongst the games in the market or app discovery. We also attempt to answer what users deemed as most important when choosing a game for the mobile phone and what affects their decisions.

1.3 The Focus of Study

In this study we will attempt to answers 3 crucial questions and try to come up with an observation of the mobile game customers.

- 1. What criteria smartphone users use to download a game on their mobile phone?
- 2. What are influencers for the smartphone users to download a game?
- 3. Is there any relationship between the smartphone users' behavior and the game they download?

I decided to choose this topic as I wanted to learn more about the smartphone users and my potential customers before getting into the mobile gaming industry myself. As a software developer, I know that for software to be successful you must make software as bug free as possible or at least run as expected. However, what I do not know yet is how the customers choose an app for his phone and how to engage the user to keep playing the game. But since, app discovery or why a customer choose the app is the first step, I decided to focus my study on this topic, on how customer choose a game and hopefully from this study I might find some insights on the customer behavior when it comes to choosing an app for their mobile phone.

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CHAPTER II LITERATURE REVIEW

Most of the mobile apps nowadays are distributed through either Apple App Store or Google Play Store depending on the devices. With an ever increasing amount of apps every month, how does the user chooses his apps from hundreds of thousands of the App in the store? In this section, we will explore some of the literature that can be used to describe the customer's decision.

2.1 Defining the Relationship Between Price and the Value of Product

Games like every other products needs to offer value to the users, people will buy it if it offers more entertainment value than the listed price. According to a paper by Shampanier, Mazar, and Ariely (2007), the standard model of when a person chooses to purchase a product is when the value offered by the product is greater than the price. But when there are two product the person will choose the product that offer the best value for the price, however, at a certain point where the price of both product is extremely low reducing price further gives no benefit or increase in sales if the competitor also cut the price by the same amount. (Shampanier, Mazar, & Ariely, 2007) But when the product is offered for free whilst the other is not, more people will consume the free product regardless of the value of the product. (Shampanier, Mazar, & Ariely, 2007) This observation is somewhat confirmed by the increase in free apps in the App Store.

So how do we increase the value of the games? According to a research done in Japan by Okazaki (2008), it said that the adoption of the online mobile games is based on several factors, it must be enjoyable and fun, visually appealing, the game must also be seen as offering something new, and it must be free of problems. And hence, we can define what makes a good game that will attract the gamers by using the factors above.

2.2 Defining Diffusion of Innovation

Schiffman (2007) defines diffusion of innovation as how new products spread and assimilate into the existing market. There are many meanings for the word innovations; for this paper, we will define it from the firm's point of view, which is a new product that the firm has just created. (Schiffman, 2007) This means that a game company doesn't necessary have to create a new type of game but rather just a new game. The theory about the diffusion of innovation seems to be the best explanation of how a game can become successful in the mobile phone market.

The discovery of the new product is usually done by the innovators and early adopters, as they are people who like to try new things. (Schiffman, 2007) In a research done by Clark and Goldsmith (2006), it suggested that the innovators are not influenced by the social cues from other people, this means that they are willing to take risk in trying new things without looking for things such as ratings and reviews. Innovators play an important role in product adoption, according to Schiffman, the innovator will be made aware of the new product through mass-media such as news site, and from there they will try out the product to see if it fulfills their needs. (Schiffman, 2007) The innovators will share this information with other innovators who will then influence the early adopters such as other family members or friends. (Schiffman, 2007)

The next people that will adopt a new product would be the early and late majority adopters which represent 68% of the population. (Schiffman, 2007) These type of people usually listen to advice from others about the product before buying, or in some cases are peer pressured to buy new products. (Schiffman, 2007) A study done in the Korean AppStore by Jung, Baek, and Lee in 2009 to 2010, concluded that the most important factors for an app survival is ranking, user rating, and especially the content of the app. (Jung, Baek, and Lee, 2012) Another study was done on this subject to see the effect on the app download in relation to on the app's ranking on the AppStore by Garg and Telang. (2013) In their research, they collected the apps ranking, the price, and the number of downloads twice a day for 2 months, they then fit the data into a Pareto Distribution and modify and verify the equation to get the model that can be used to predict the sales from the ranking. (Garg, R., & Telang, R., 2013) What they found was that depending on where the apps rank, it will affect how

many people will download it per day; the app ranked 1st will get a lot more downloads than an app that is ranked at 200th per day. (Garg, R., & Telang, R., 2013) This kind of behavior can be explained by another research done in 1995 by Hanson and Putler, in this research the participants would choose a software to download, on the download page there would be some information about name of software, a small description, numbers of bytes, and the number of times downloaded. The researcher would then increase and decrease the number of times downloaded to see the effects on the participants, what they found was that the higher the number of times downloaded, more people would start to download the software, but when the number of times downloaded is lower the opposite occurs. (Hanson & Putler, 1996) These two research has shown us that by nature the majority of the people are easily influenced by what others is doing, as such we will look at the reviews and would most likely choose the apps in the top chart of the App Store (works on the same principle as download counts), this is a trait of the early and late majority of adopters.

2.3 Defining Core and Casual Gamers

Hardcore gamers are usually the innovators in the game industry as they are the one who purchase and while the casual gamers play games occasionally, games that are usually recommended to them. (Bamford, 2006) Another paper also indicate that the hardcore gamers are likely to adopt new games early on making them one of the innovator and also the early adopters.(Jacobs & Ips) Jacobs and Ips also outlined the 15 factors that defines a hardcore gamer:

- 1. Technologically savvy
- 2. Have the latest high-end computers/consoles
- 3. Willingness to pay
- 4. Prefer violent/action games
- 5. Prefer games that have depth and complexity
- 6. Play games over many long sessions
- 7. Hunger for gaming-related information
- 8. Discuss games with friends/bulletin boards
- 9. Play for the exhilaration of defeating (or completing) the game

- 10. Much more tolerant of frustration
- 11. Engaged in competition with himself, the game, and other players
- 12. Age at which first started playing games
- 13. Comparative knowledge of the industry
- 14. Indications of early adoption behavior
- 15. Desire to modify or extend games in a creative way.

These behaviors are that of the PC and consoles gamers, and as such we do not know if this can be applied to the mobile phone gamers or not? Another approach to segment the gaming market is through the use of age groups. According to Schell, the age group can be divided into 9 age groups each with different attitudes towards gaming. From this book, we found that the core paying gamer is in the age range of 18 to 24, as these people have the time and money to spend on games, however some people in the age range of 25 to 35 whose primary hobbies are gaming will tend to heavily buy games as well. (Schell, 2008) And as such we believed that these groups of people are likely to be the core gamers.

2.4 The Framework

Our framework to describe how the people chooses the game will be mainly based on the diffusion of innovation theory with some of the research pointing based on game adoption done by several researchers. In essence, a game will first be heard by the core gamers through certain media outlets such as news website, these people are willing to try new games and since most mobile phone games are free, there shouldn't be any risks or cost associated with it therefore there should be a lot of gamers who will try the software out. We also suspect that PC and Console gamers are amongst the people that will actively search out the games and the news about mobile phone games. If the game met certain criteria such as having a good gameplay, a good graphics, and is bug free, the initial players will then rate the app and write the review and probably tell other people about this game. As more and more people play the game, the download number will increase on the App Store and if the game is good the rating will stay in a constant high, which in turn make the game visible on the top charts in the App Store, and people will download it with

confidence.

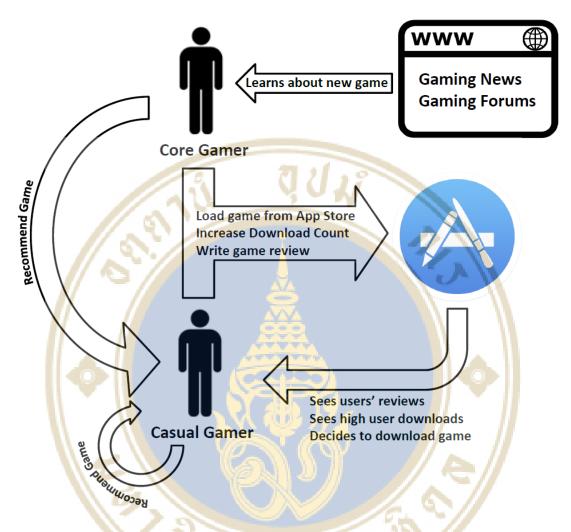


Figure 2.1 How a new game diffuses into the market

CHAPTER III RESEARCH METHODOLOGY

For the research method we decided that interview is the best way to gather the personal experience of the mobile phone users about how they discover a game and their attitude towards the game. Interviewing offers the benefits of being able to probe the interviewee with the further questions based on their previous response and hence we will be able to find out more about the customer insights about this topic. As we do not have the available data to conduct the quantitative research due to the fact that there aren't many research dealing with the mobile phone game applications, I believe that the first thing is to find the factors that affect the customer's decision to choose a game and how he discovered it.

The interview would be done using convenient sampling from a group of students in CMMU whose age range is from 25 to 30 years old. There will be a mix of students that are known to be avid gamers and have openly played a lot of games on their mobile phones during their free times and breaks, students who play buy and play games on other platform other than mobile phone, and the students that rarely play games but still do. The reasoning for picking this kind of sample is because we observed how each group search for a game, what their behaviors are when it comes to mobile phone gaming, and what their view on their devices is.

The flow of question would be first to try to find out about their history of gaming, then follow by their interests in gaming, and whether if they follow up on news about the game or not. This type of questions is used to determine what type of gamer they are. Then the questions would be about what they feel makes a good mobile games, this is to gain insights on how they choose each game and what their criteria are. Then finally, the questions of the interview would be about how they discover their games and who and what help them find the games. This is meant to help us find where they get their source of information about the game, so we can gain insights to either prove or disprove our framework.

After the interview process is done, we have to stack the interviews into groups of different types of people based on the response of the interview. There will be three groups that each interviewee can be classified as:

- 1. Core gamers: these people search out new games from news sites and love to try new games that are out.
- 2. Casual gamers: these people still play games from time to time, but are not active in seeking out new games. They are easily influenced by other people's opinion about the game.
- 3. Extremely Casual gamers: these people rarely play games; they only do on some occasions.

Based on the definitions above and on the 15 factors of hard-core gamers by Jacobs and Ips, we decided to include some traits of the hardcore gamer from Jacobs and Ips list and try to emphasize on some of the factors to determine a core gamer instead of hardcore. To classify the interviewees, whether they are a core gamer or not, we will use the modified and shortened version of the 15 factors by Jacobs and Ips:

- 1. Technologically savvy
- 2. Willingness to pay for a game
- 3. Play games consistently during free time (as some of the games on mobile phones are designed for short sessions therefore a good indicator is if they consistently play games)
- 4. Like to read about gaming-related information from gaming blogs, website, or printed media.
- 5. Engaged in competition with himself, the game, and other players
- 6. Indications of early adoption behavior search out and try new games without influence from others. (Early adopters)

We have decided to cut out some of the factors such as we deemed that some of these factors are subjective, not important to this research, can't be applied to the mobile phone, or is the repeat of another factor on the list.

From these three groups, we will then simplify the sentences in the interview so that we can codify it. To codify the sentence, we will choose a phrase or a word that best describe the sentence. We will then look at the factors that overlap

the entire group of the interviewee and make that a universal factor that applies to all groups of customers. Then for each group, we will pick out the factors that affect their choice of games, what influences them to choose and play the game, and what are the ways they discover new games on the App Store.



CHAPTER IV FINDINGS AND DISCUSSIONS

From the interview, it could be concluded that we can divide the customers into 3 groups. The first group is the non-gamers, the second group is the casual gamers, and the third group is the core gamers. We were able to determine these player by using the shortened list that defines the traits of the hardcore gamers (the more traits an interviewee shows, the more likely that they are a core gamer). One interesting thing to note is also about the preference of the device, a core PC/Console gamer might prefer to play on those devices more than on the mobile phone as it gives more control and allow the game to be more complex in both level designs and gameplay while the mobile phone platform can't provide those kind of complexity, therefore they will usually consider the mobile phone as a casual gaming device. In this case, they will behave like a casual gamer on the mobile device rather than a core gamer. Another point to note is that some of the people exhibit traits in both groups, and therefore it could be concluded that these people exists in an area where both groups' traits overlap each other, this is shown in Figure 2.

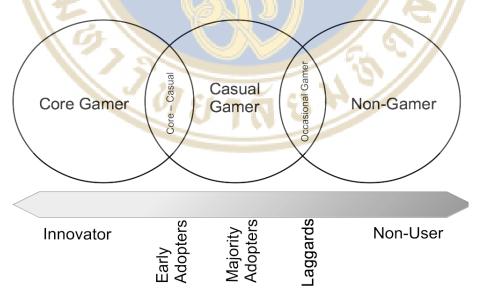


Figure 4.1 Gamer's type in relation with adopters

4.1 Profile of Core Gamers

Gaming for this group of these people is a way of life. One of the defining traits of the core gamer is the need for getting the gaming news, these people will read gaming news from sites dedicated gaming sites and forums. Their choice of game is based on how well the game is designed to use all the features of the hardware, such as intense graphics, intuitive control schemes, have multiplayer capabilities, and in general have a good gameplay mechanics; this might be due to the fact that they played on several specialized gaming devices before and hence have seen many innovations in the game industry and as such they expect their game to provide most of the features. They usually play games when they have nothing to do usually during traveling to and from their workplace or when they have free time. But what really defines them from other casual gamers is that they are willing to try new games that they have heard either from other gamers through reading the game community forum or from the gaming news website which showcase the new game, but usually these games do not have any user's reviews or rating as it has just been released and no one has yet to download it. They are also not swayed by other user's comment about the game and they believe in their gut instinct when choosing a game. They have no problems buying a game if the price is right.

4.2 Profile of Casual Gamers

Gaming for these people is mainly to kill time and some also to compete with friends, these people still actively play games on their free time. They prefer games that are a bit challenging, but quick and easy to pick up and play. However, they do not actively seek out gaming news from gaming websites or forums, although they can learn about a new game from news aggregator sites which does not only show gaming news but all the general news, or sometimes they learned of a new game through in-app promotions (Line Stickers, Line Games, in-app advertisements). Games are usually recommended to them by their friends, but sometimes when they have the time to browse to the AppStores or Google Play, they will look at the download quantity and the user's rating as the main criteria before choosing whether to download the game or not. Another criterion that they will use is to see if a game is

made by the big game studios or not. The reasoning for this is that they do not want to risk downloading a bad game into their mobile phone, as it wastes their time and Internet data limit on their phones. Some of them will even say they will not download any games if there aren't a certain people downloading it and the rating isn't above a certain grade.

4.3 Profile of Occasional Gamers

This group of people plays games occasionally for a time and then stop for a few months, they are somewhat almost a non-gamer as in they don't play games at all but due to social pressure they are sometimes exposed to gaming. Usually these people do not play more than 1 or 2 games a year and they usually play for a period of 2 to 3 months. This group of people usually plays game to follow the trend and the games that they play are usually games that are heavily focused on the social interactions with other players. Other than playing games to kill time, the play games so that they can be part of the group that is if they see their friends playing games they only play it so they can strike a conversation with them. They prefer games that are simple and not challenging, they prefer games that doesn't have bad consequences when making a decision or a time limit. Usually, they will not actively seek out a game in the App Store or Google Play, but rather they only find out about the new games through their friends inviting them to play. These people will never pay for a game and will only download free games.

4.4 Base Gamer Profile

This section will talk about the common findings that overlap all of the gamer profiles from core gamer to occasional gamer. One of them is that when a game is good, most people will recommend the games to other people or to their group of friends either by directly inviting them to play or showing them the game and talk about it; this is especially true for games that requires social interactions either to help advance the game or compete against each other. The other is the correlation between free time and gaming, most of the respondent that we have asked will often say that

free time is the determining factors whether they will do gaming related things or not (playing games, browsing the App Store, or reading on gaming news. It seems that Schell (2008) was correct in his analysis of the gamers demographic by age, in his book 'The art of game design: a book of lenses' he stated that people from age 25 to early 30s tend to not have free time for games as they have more responsibilities in life; this was reflected in our findings and hence for most of our respondent the lack of time prohibits them to search for new games or at least play a game. Lastly, for most of our respondent in all groups, the most important factor is that the game must be free of bugs and work as intended otherwise they will not recommend the game or keep playing it.

4.4 The Framework of Mobile Phone Game Diffusion

As previously described in the literature reviews, the diffusion of games in the market place will most likely be very similar to the diffusion of innovation described by Schiffmann and Kanuk. (2007) Based on the interviews, we get to see how each group of gamers played a role in the diffusion process. The core gamers often act like the innovator type of adopters described in the diffusion of innovation model. They are the ones that are likely to be the first ones to try out new games and they are very knowledgeable about the gaming industry as they read from news sources that is closed in the gaming industry hence they are able to discover new games. They are the one who will load the game thus affecting the download count and play it, write reviews and recommend to their friends. The game rise to popularity will often start from the core gamers as they are the one who will introduce it to the casual gamers. If the game really appeals to the casual gamer crowd, the download count and user's reviews on the App Store will then exponentially increase as more and more people hear about this game. This will place the game on the top chart if it is successful enough and hence the game will be visible to the more casual gamers (whose behavior is synonymous with the late majority of adopters in the diffusion of innovation model) will begin to adopt the game as well. Finally, when the popularity of the game reaches its peak the occasional gamers will start to take notice as their friends around them are playing that game and talking about it openly; as they don't want to be left out of a conversation and want to be a part of the group, they will start loading the game and play it with their friends. If they like it they will recommend it to other people thus diffusing the game to the market.



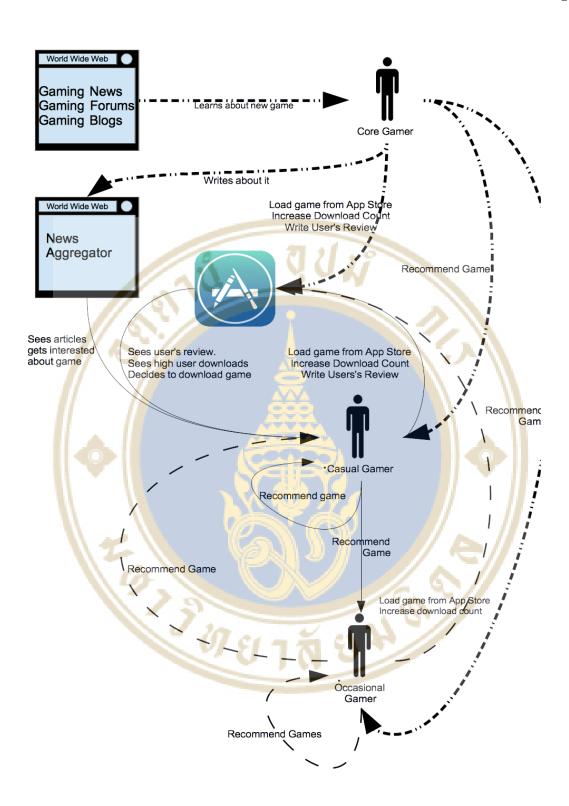


Figure 4.2 The final model of how a game diffuses into the market

CHAPTER V CONCLUSION AND RECOMMENDATIONS

5.1 Recommendations

For a new game company starting out in the mobile gaming industry, I believe that our recommendation is to first make a good product. As most of the respondents state that a good game is the product that is bug-free and work as intended, if a game is deemed as buggy and most likely will be deleted and not recommended to others. Other than not being able to market the game due to it being buggy and non-functional, the company name might also be tarnished, and according to one of the respondent, he said if he played a game by a certain company and that game is buggy, he will not choose any game from that company as he views that any game from that company uses the same engine and therefore it is going to be buggy and non-functional. So as a rule of thumb, always make a game as perfect as possible before releasing it, test it out for bugs, and make sure any service supporting the game works, or basically make sure the product works as advertised.

Therefore when marketing your game, you should focus the marketing efforts on to the core gamers as they are likely the one that will try your games, put advertisements or game showcase on famous gaming forums and gaming websites, make sure that the advertisement or game showcase that shows relevant information about the game mechanics and innovations as this is like to attract the core gamers to download the game. Another method is to hire the news websites that is popular amongst the mass population to do an article about your game; this will most likely attract some of the casual gamers to download the game as they spend their free time reading up on their daily news before work. From our findings, friendly competitions or cooperative play features of a game can help a game diffuse into the market faster as more people are likely to share it due to the incentives. To summarize our recommendations into points, what a game company needs to do in order to be successful in the market is:

- 1. Always make sure the game is in working order, is bug free, and does what is supposed to do. First impression for a company is very important if you want to survive in this market.
- 2. Advertise and showcase games in dedicated gaming website and forums to lure in core gamers to try out your games.
- 3. Try to get an article about your game on a popular news aggregator website as this will make some of the casual gamers notice your game and try it out.
- 4. Include social gameplay such as competitive functions or cooperative functions to a game as this will give the incentive for people to recommend the games to their friend.

5.2 Conclusion

It seems that the diffusion of a game into the market follows the same model as the diffusion of innovation. Therefore, it is important to understand and analyze each type of the customer segments and how they behave. In this exploratory research, we get to know more about the behavior of the three groups of gamers: the core gamer, the casual gamer, and the occasional gamer. We found that the core gamer groups are consistent with the innovator group of adopters, the some casual gamers are consistent with either the early adopters, while most are consistent with the majority adopters, and the occasional gamer can be considered a laggard.

5.3 Limitation and Future Researches

It should be noted that this research is done using convenient sampling method to pick the interviewee and might not have reflected the whole population; therefore more exploratory research needs to be done in order to accurately know more about the behaviors of each type of gamers. Another factor that should be of concern is the system used to classify the core gamers, casual gamers, and the occasional gamers are not truly proven for the mobile phone games. Therefore more quantitative and qualitative research needed to be done in that area to be able to find

more factors that might be more appropriate in classifying the gamer's type.



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Appendix A

Guiding Interview Questions

- 1. Introduce yourself; please talk about your gaming history. What did you play? What gaming machines did you own? What feeling does gaming invokes?
- 2. What makes a game fun? What are the features that a good game must have?
- 3. Do you prefer games that is challenging to play or simple games?
- 4. What type of games do you prefer to play on a mobile phone?
- 5. Do you read any gaming related information lately?
- 6. Where do you get information about game on mobile phone?
- 7. How much time do you spend on playing the games on mobile phone per day?
- 8. When and where do you usually play your mobile phone games?
- 9. What do you think about mobile phone games in general?
- 10. Have you ever try a game when it's just released on iOS?
- 11. What are the criteria that make you choose a game from the App Store?
- 12. When you download and purchase a game do you base your decision on the reviews and ratings on the app store? Why?
- 13. Who has the most influence on you when it comes to choosing a game on mobile phone?
- 14. Between paid and free games on mobile phone, which one do you prefer or download more often?
- 15. What are your views on in-app purchase?
- 16. What are your views on one time purchase?
- 17. When you find a game interesting do you often recommend it to other users? Why or why not? What medium do you use to convey your message?

Appendix B

Interview Result Matrix

Participants	A	В	C	D	${f E}$	\mathbf{F}	G	H	Ι
Game is a hobby.	✓		✓			✓	✓	✓	
Prefer simple games.		1		1					✓
Prefer to play games when have	1	77 4	11		_	1	1	1	
free time.		y (1	7					
Actively search for gaming news									
from game community forums,									
gaming news websites.				7					
Shows interests in reading gaming					W	74.	M		
news on a general news aggregator		ł.,				1		•	
websites (usually in IT news section	Y	5			1	V	Y		
of the website) and/or	A	V				W.		м	
advertisements.		1							
Discover new games mainly by browsing App Stores during free	44.	1	1		1			1	
time.			4					Ш	
Discover new games only through									
friends.				\checkmark					\checkmark
Will download game if review of a	1	,,,,	VA			7/6			
newly released game on news	1					1	1		
websites is good.			All.			/ /2	_ /		
Will only download or purchase	1					15			
games based on what friends are		1		1	//		7//		✓
playing or suggest.		N					//		
Like to try new games on the App					COL		1		
Store, do not listen to judgments		1		44	1	//			
from others.		53	4	LM	1/				
Only download games that have									
high download count and high		1	1					1	
users' review scores in the App									
Store.									
Will play only free games.		✓		√		√		√	√
Preferred to pay for games on App	1		✓		1		✓		
Store.									
Mobile phone is not a primary	✓						✓	1	
gaming device.									
Have more than one type of gaming	√					✓	✓	✓	
machine.									
Will suggest people to play the	1	✓	✓	✓	√	✓	✓	1	✓
same game that one is playing.									
Writes article about games.	✓								