INCREASING OVERALL CUSTOMER VALUE IN MOBILE GAMES

What implications can be drawn from the customer value chain in mobile games?

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Objectives

The main objectives of this study were to draw strategic implications for companies from the customer process of wanting to play, searching for a game, and assessing the game after downloading it, and suggest how these implications could be used to increase customer value. The research will attempt to construct a customer value chain model and analyze it.

Summary

The exploratory research studied only female respondents. A set of interviews was conducted to study the behavior of mobile gamers to draw implications from the customer process within the customer value chain. The data were manually analyzed, and the findings were presented with visualizing tables. The findings were then discussed and related to the company process of the customer value chain.

Conclusions

A number of implications were found regarding the customer process of wanting to play, searching for games, assessing the game quality and experience, and continuing to play for an extended period of time. The implications can be used by companies to increase overall customer value in mobile games.

Key words: Mobile games, customer, mobile gamer, customer value chain, mobile game company, international business

Language: English

Grade:

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1. INTRODUCTION

1.1. Background

The mobile game industry is known to be rapidly changing (Laakso and Nyman, 2014), as well as highly competitive and complex (Feijoo et al, 2012). For example, in 2014, about 500 games were launched daily for the iOS (operating system of Apple smartphones) and 250 for Android phones (Graft, 2015). In such a crowded market, studying the customer to find meaningful implications could be of great importance to mobile game companies, and new research is constantly required to provide relevant information. Thus far, most research on mobile games has focused on motivation to play, the technological aspects of mobile games and the game-specific factors that please gamers.

The entire customer process of wanting to play, searching for a game, and assessing the game after downloading it is new as a concept in mobile gaming literature, thus implicating a need for exploratory research. The term 'customer value chain' will be used to describe this process in the current research. There may be potential within the customer value chain for mobile game companies to gain new insights and implications in order to increase customer value and quality of experience. This information could be leveraged to gain competitive advantage in the mobile gaming industry. In this context, the term 'mobile gamer' will be used quite inclusively, consisting of anyone who plays one or more mobile games, either regularly or occasionally. The term 'mobile game distribution platform' is used for such digital distribution platforms where mobile games can be searched and downloaded on mobile devices. The most notable ones are the App Store for Apple devices and Google Play for Android devices.

1.2. Research questions and objectives

This paper is going to research the customer value chain, specifically focusing on the four following steps: desire to play, search for games, assessment of quality and

experience and continued use. The paper is going to examine the following questions:

1.   What strategic implications can be drawn from the customer process for companies?
2.   How can these implications be used to, in return, increase customer value?

The current research will attempt to answer these questions by conducting interviews to address gaps and confirm some of the findings in existing literature. The objective of the research is to construct a customer value chain model, analyze it and draw strategic implications for companies in order to increase customer value.

1.3.   Structure of the thesis

The research will be structured as follows. Firstly, the literature review will discuss the previous research conducted on the topic of mobile games. The conceptual framework (the customer value chain) will then be developed based on the literature review. Secondly, the methodology and findings of the primary research will be discussed in detail, followed by a discussion of the findings, which will be reflect the customer value chain. Finally, the conclusion will summarize the findings of the study. Additionally, the references to the secondary sources used in the research, as well as the appendices will be provided.

2. LITERATURE REVIEW

Mobile gaming is a relatively new concept that emerged along with the development of smartphones in the late 2000s. Therefore, the literature on the subject is relatively new and many aspects still lack sufficient academic research. This literature review will explore the different areas of research within the mobile gaming context, focusing especially on the consumer point-of-view. The aim of this literature review is to give foundation to the research questions: What implications can be derived from the customer process and how can they be used to increase value for customers? Mobile gaming literature lacks a holistic viewpoint on the relationship of the customer and the company processes which, in this research, is referred to as the customer value chain. This literature review, as well as the following exploratory research will attempt to address that gap.

The literature review will be structured thematically. Firstly, a more general discussion on mobile gaming will be provided, followed by an exploration of the mobile gaming industry and its dynamics, as well as mobile business models. Secondly, a more comprehensive discussion on the consumer point-of-view will reflect the process that the consumer goes through when he/she wants to play a game, searches and selects one, downloads it and plays it. This discussion will be divided into two points of time: before and after the consumer downloads the game. Furthermore, a conceptual framework will be provided to identify the key issues and concepts in mobile gaming.

2.1. Mobile games and the industry

As a basis for the literature review, the most important basic concepts and issues in the mobile gaming industry will be discussed. Firstly, the trends and basic features of mobile games will be shortly discussed, followed by the dynamics and issues in the mobile gaming industry. Finally, an overview of the different pricing strategies in mobile games will be provided.

A few researchers have focused on describing mobile games, their characteristics and trends in mobile gaming. Laakso and Nyman (2014), along with many other researchers (for example, Wei et al, 2014; Chen and Leung, 2015), agree that one of the major advantages of mobile games is the accessibility, in contrast to, for example, computer games. Kim (2013) researched the common features in mobile games and found that the most popular games tend to have similar features, such as a sufficient degree of simplicity, which is a rather important finding in terms of the research question being studied as it indicates that trends have a strong presence in the mobile gaming industry. Therefore, in the rapidly changing industry, companies ought to frequently conduct trend analysis and forecasts. On a more general level, the study (ibid) reported that whereas older mobile games were extremely simple and two-dimensional, nowadays there is a strong trend towards social, hybrid and augmented reality games. The study correctly forecasted the current popularity of augmented reality mobile games that has been characterized by games like *Pokémon Go* by Niantic. One of the earliest works on hybrid (mixed) reality was written by De Souza e Silva (2009) – a largely descriptive study discussing the concepts of mobile interface and multiuser environments. These concepts are still relevant today with the rising popularity of games such as *Pokémon Go* that extend the concept of mobile game space and mobility.

In terms of the mobile game industry, research has mostly studied the characteristics and dynamics in the industry. Laakso and Nyman (2014) focus on studying the video gaming industry in general, stating that it is known for being a forerunner in graphical presentation technology and, as previously touched upon, for changing rapidly. This is also reflected in the mobile gaming industry and poses a challenge for game companies as well as researchers. In contrast to the work by Laakso and Nyman, a slightly earlier work from Feijoo et al (2012) focuses specifically on the mobile game industry and its dynamics. From the company point of view, the industry is very complex and there is a substantial amount of competition due to relatively low entry costs (ibid). The study also describes some issues that mobile game companies face, such as consumer protection and developing solid business models. Developing a game is therefore rather complicated and has many considerations the company must take into account.

Another challenge for mobile game companies is developing a suitable business model (Feijoo et al, 2012). The most common business models for mobile games are (Feijoo et al, 2012; Laakso and Nyman, 2014):

- **The premium model:** the player purchases the game before playing
- **The freemium model:** basic content is free of charge and additional features are unlocked through in-app purchases
- **The subscription model:** the player pays a regular (for example, monthly) fee in order to play the game
- **Advergaming:** this business model combines advertising and the game

In terms of mobile gamers' purchasing behavior, Kim (2013) found that 'gamers are generally willing to pay for extended versions' of otherwise free games (p. 51). This statement is contradicted by Hsiao and Chen (2016), a very recent work studying the in-app purchase behavior of mobile gamers, as freemium pricing is among the most popular business models in the mobile gaming industry. According to the study, a very small number of gamers actually spend money on mobile games, however, those who do, generate over half of the revenue of the games. The reason for the two contrasting findings could be that Kim (2013) based the study largely, if not entirely, on U.S. sales data interpretations, while Hsiao and Chen (2016) based their conclusion on a customer survey with a non-geographically constrained sample. The latter research also found that perceived value and customer loyalty have a substantial effect on in-app purchase behavior, and the perception of 'value for money' was especially important for gamers who do not generally pay for mobile games. This is an important finding because it highlights the importance of perceived quality and creating value for customers in the freemium model, as in-app purchases are vital to generate profit from the game.

2.2. Customer process: pre-download

This section will discuss the literature on the process that the consumer undergoes before deciding to download a specific game. The discussion will be partially related to some theories and concepts of psychology. Firstly, the motivations behind playing games will be discussed, with special attention given to the social aspect of mobile

games due to its importance in consumer satisfaction. Secondly, the process of choosing the game will be explored by defining what drives the intention to play a specific mobile game.

2.2.1. Customer's intention to play

Numerous psychological studies have been conducted on the subject of the customer's intention to play. Shen (2013) researched the sociocultural motivations behind playing mobile games, and found that players responded positively to being able to develop themselves and experience new things through games. The Uses and Gratification (U&G) model from the 1940s has often been applied to gaming, to research the fulfillment of gamers' needs and desires, also known as gratifications (Wei and Lu, 2014). In mobile gaming, researchers have determined the most important gratifications that players seek: social interaction (in social games), enjoyment, entertainment, mobility, relaxation and achievement (Wei and Lu, 2014; Chen and Leung, 2016). Researchers have different views on the significance of some of the gratifications, therefore they are not ranked. Most mobile game researchers agree that sociability in mobile games is a very significant aspect of mobile games and a relatively large number of research exists on the subject, therefore it will be thoroughly discussed in the following paragraph. In terms of personality, Chen and Leung (2016) also found that the psychological attributes of loneliness and lack of self-control had a large impact on mobile social game addiction (ibid). In addition, a study by Phillips et al (2006), found that people with low agreeableness (in social situations), tend to use mobile phones for playing games more frequently than those with high agreeableness. However, the study was conducted before the modern smartphones were developed and therefore the results should be used with caution. The customer's desire to play is interesting to research, as it may provide implications for mobile game companies to develop different methods to stimulate the customer's intention to play in their marketing activities.

Regarding the social aspect in mobile games, researchers who have studied network externalities generally agree that people have a higher intent and willingness to play a game that their friends are playing (Wei and Lu, 2014). The study also found that

social interaction within games increases player engagement, and playing against other people is found to be more enjoyable than playing against the computer (ibid). This is supported by Chen et al (2016) who found that social interaction in games greatly contributes to perceived enjoyment, further increasing intention to play. However, both Wei and Lu (2014) and Chen et al (2016) conducted studies on Asian consumers and therefore the findings cannot be generalized to other geographical regions without supporting studies. One such study was made by Kim (2013), who studied the most popular types of mobile games in the U.S. and found that the appeal of a game is increased if it includes social interaction. Therefore, social interaction could be a very important psychological factor explaining the need to play mobile games, and especially social mobile games. In addition, the social aspect in mobile games could increase the perceived value of the game and make it more attractive, therefore affecting the customer value chain. The specific aspects that consumers seek and judge in mobile games will be discussed in the following section.

2.2.2. Customer searches for the game

Research on the subject of 'What consumers want from a game?' is quite broad, and researchers have often referred to The Technology Acceptance Model (TAM) by Davis et al (1989), which explains the attitudes of customers in the adoption of new technology (Penttinen et al, 2010). However, the research by Keeney (1999), based on the author's value-focused model (1996), explains customer values as well as choice behavior and has been argued to better suit the context of customer values in mobile gaming (Penttinen et al, 2010). In this context, while TAM (Davis et al, 1989) proposes some important implications in terms of customer intentions, Keeney's later work (1999) is more relevant as it is newer and directly concerned with the values of prospective customers. Based on Keeney's research (ibid), Penttinen et al (2010) determined the specific aspects that different consumers evaluate and appreciate in mobile games, as well as further classified the different customer groups among mobile gamers:

1. The **demanding customers** who stress the importance of the total customer experience,

2. The **game enthusiasts** who focus on the total customer experience as well as the quality of the game,

3. The **demanding gamers** who focus mainly on game quality, and

4. The **casual gamers** who focus on the quality of the game only to an extent, but instead appreciate the social aspect and good customer support.

The different customer groups are important to acknowledge, as mobile game companies should respond to the needs of different customers in different ways. The needs and behaviors of different customer groups should be further researched due to the potential benefits to companies.

In terms of the intention to play a specific mobile game, Kim et al (2010) found that image quality is very important for gamers in general, increasing realism in mobile games. Similarly, Wang et al (2016) found that aesthetics was the most important factor in human computational game (HCG) acceptance. HCGs are games where such problems are solved which artificial intelligence could not solve - for example, problems related to mental associations and recognition. The study by Kim et al (2010) also supported the psychological studies discussed in part (3.1.) as it stated that communication characteristics and the perceived copresence of other players were also very important to gamers. The researchers stressed the importance of fast and reliable connection speed, as well as the possibility to connect with other players in some manner (ibid). In addition, the study found that goal setting, sufficient game options and satisfying compensation for playing influence the perceived enjoyment and intention to play mobile games (ibid). Satisfying compensation for playing games was found to be quite important by Castro Soeiro et al (2016) as well, implicating that consumers wanted 'real' prizes for playing, such as tickets to *Angry Birds* adventure parks. The research also found that innovative design features for mobile games attract players regardless of geographic location and culture (ibid). Indeed, even though both studies by Kim et al (2010) and Wang et al (2016) were surveys conducted in Asia, many of the findings were supported by studies conducted in other cultures as well, implicating that at least some key aspects of mobile games are held in equal value by mobile gamers universally. These are specific variables that increase the perceived value in mobile games, and based on the studies it can be concluded that companies should leverage this information for their benefit to increase customer value and satisfaction within the customer value chain.

In terms of gamers losing the initial motivation to play, Feijoo et al (2012) stated that the process between the intention to play and actually playing a game is complex, and acknowledged a gap in literature on the subject. The study suggested the following reasons for mobile users eventually losing their motivation to play, despite having initial intention: lack of perceived value, high costs, and the availability of alternative devices. Hsiao and Chen (2016) further expanded upon the subject of perceived value and suggested that major contributors include price, performance and quality, as well as social and emotional value. The relationship between the intention to play and losing motivation to play, however, requires more conclusive research, both in the fields of business and psychology. The aspects of maintaining customer motivation could potentially be quite similar to customer retention (will be discussed in 4.2.), as in both situations the main issue is to prevent the customer from losing their motivation to play, for possibly similar reasons. This implicates a need for comparative studies in the field of motivation. The findings of these studies, if researched further, could potentially be of great benefit to mobile game companies in terms of competitive advantages, for being able to maintain customer motivation would likely increase the number of downloads, further increasing profits.

2.3.   Customer process: post-download

The literature review will now discuss the process that the consumer undergoes after he/she downloads a game. This viewpoint is quite new in the academic literature on mobile games and therefore a smaller amount of research publications has been published. This indicates a requirement for further research in many aspects of this area, as it could be quite important in terms of creating competitive advantages for mobile game companies. Firstly, the post-download game assessment will be discussed especially in terms of Quality of Experience (QoE), as well as some additional aspects that largely contribute to QoE. Secondly, the decision of the gamer to continue playing the game will be shortly discussed, as the topic largely lacks a sufficient amount of literature from which to draw conclusive implications.

2.3.1. Customer assesses the gaming experience

The post-download assessment of game quality and the playing experience is a critical part in the customer process especially in freemium-priced mobile games, as the customer is making the decision to stop or to continue playing the game. Therefore, the aspects affecting this evaluation are important to research from the point of view of the customer. However, mobile gaming research lacks a business point-of-view on the topic, which will therefore be addressed in the current research.

Beyer and Möller (2014) developed a framework to identify the main contributors to Quality of Experience in mobile games, suggesting that appeal, immersion, interaction quality, playing quality and game flow can have a positive or a negative effect on player experience and therefore the acceptability of the game. The study also found that especially network delay, as well as small screen size decreased the perceived Quality of Experience in mobile games (ibid). However, the generalizability of the findings is somewhat restricted due to only a small variety of different games being examined in the study. The findings could vary with different types of games. Shchiglik et al (2016) further discussed the concept of assessing mobile game quality and found five dimensions contributing to the perceived quality of a game: ease of use, quality of game content and information, the responsiveness and speed of the system, visual appeal and the gaming experience. These dimensions correspond with those of Beyer and Möller (2014), developing the concepts further and giving more concrete definitions. However, the assessment of mobile game quality and more specifically the Quality of Experience are concepts that still require more conclusive research.

In addition to the dimensions proposed by Beyer and Möller (2014) and Shchiglik et al (2016), there are other aspects of mobile games that may contribute to the perceived mobile game quality, three of which will be discussed: mobile security, music in mobile games, and unification of platforms. Firstly, Stiakakis (2016) studied the responses of mobile users to security breaches on an economic perspective and found that gamers perceive the costs of mobile security breaches higher than other mobile users. This indicates that mobile game companies should make an effort to increase and maintain the security of their games, as it is evident from the research

that it is of value to the players. Secondly, Castro Soeiro et al (2016) studied music in mobile games and found that it is very culturally dependent, and gamers would prefer to be able to select the music played in mobile games. However, this is an exploratory study and more research is required on the subject. Finally, it has been argued (Laakso and Nyman, 2014) that a growing trend in gaming is the unification of different gaming platforms, such as mobile phones and gaming consoles. This can be seen, for example, in games like *Fallout 4* and *Grand Theft Auto V*, where the main game and a mobile app are integrated to enhance the playing experience. In addition, TV-centric gaming utilizes both the mobile phone and the television in order to, for example, recreate traditional tabletop games digitally without losing the social aspect (Punt et al, 2015). This transcends the traditional boundaries of mobile games and adds value to the customer experience.

2.3.2. Customer continues to play

As previously discussed in part (3.2.), maintaining the customer's motivation to play - in this context, after downloading the game - could provide an important advantage for companies. Kim et al (2016) were among the first to study the concept of continued use within the context of post-adoption behavior in mobile applications. The study found that a strong link exists between post-adoption behavior and the original motivators to use the app, further suggesting that effectiveness, personalization, engagement and usefulness were key contributors to continued use (ibid). This also provides evidence to the claim made in part (3.2.) that maintaining customer motivation to play before and after the download could be similar. However, Kim et al (ibid) studied mobile applications in general and the degree of applicability to mobile games is therefore unknown. For example, in terms of the specific variables, usefulness may be a concept that applies to applications with a more practical purpose, rather than mobile games. It can thus be concluded that there exists a gap in literature on the subject of continued use in the context of post-adoption behavior in mobile games.

2.4.   Conceptual framework

Increasing overall customer value in mobile games

THE CUSTOMER VALUE CHAIN
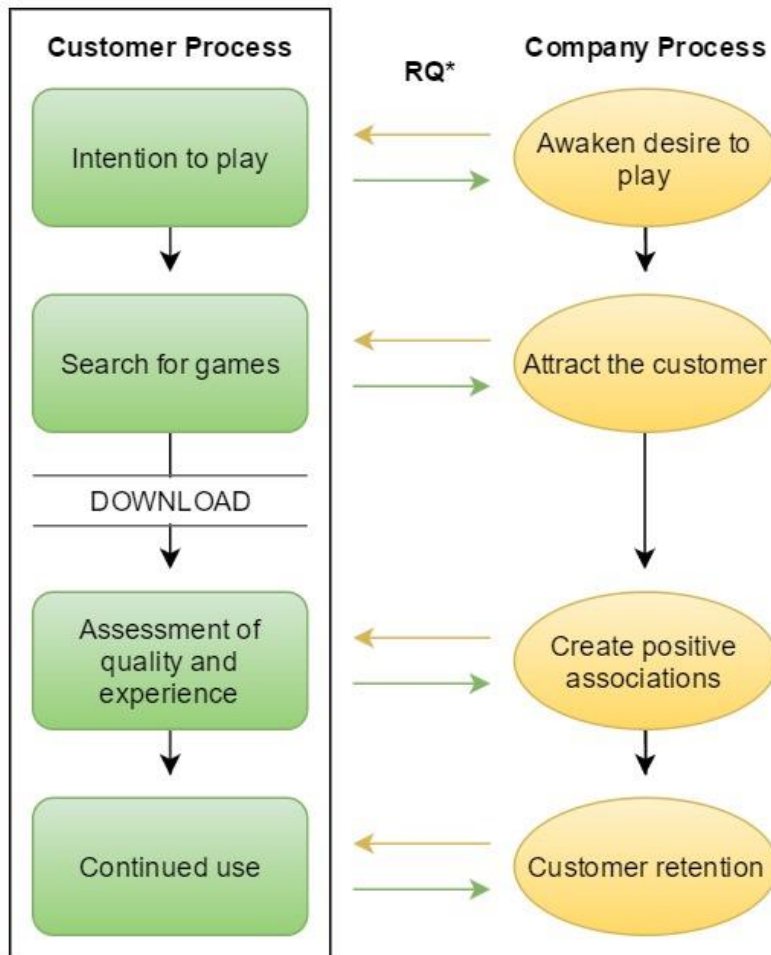
*Figure 1: Conceptual framework. *Research question(s).*

Literature on mobile gaming lacks a holistic approach to the subject of increasing customer value and, therefore, this exploratory research aims to discover implications for companies through the customer value chain. This conceptual framework was developed by identifying the process that the customer goes through when downloading and playing a game, and it depicts the relationship between the customer process and the corresponding company process. This relationship will be further studied with the two research questions:

1. What strategic implications can be drawn from the customer process for the companies?

2. How can these implications be used to, in return, increase customer value?

In the framework, these questions are represented by the arrows between each of the four stages of the processes, depicting the direction of the flow of information and action. The primary research will study the customer process, which is highlighted in the model, and will then be related to the company process. The study will attempt to derive strategic implications from each described customer stage for international mobile game companies, as proposed by the conceptual framework.

2.5. Summary of literature review

In terms of academic research on mobile games, more literature exists on the reasons why people play games in general and intention to play a specific game than the evaluation and continued use of a game. Many researchers agree that, for example, social interaction, mobility, entertainment and rewards are important in terms of why people play, and the presence of such factors contributes to the customer choosing a specific game. However, the importance of different aspects largely depends on the type of customer. In addition, some aspects that consumers appreciate in mobile games overlap in multiple parts of the pre- and post-download consumer processes - this implicates their significance in the entire value chain. Such aspects include, for example, social interaction and aesthetic appeal. These aspects are important to research in order to determine how to increase customer value through the concept of customer value chain.

This literature review provides a base for the research questions: What strategic implications can be drawn from the customer process for companies and how can these implications be used to, in return, increase customer value? Academic research on mobile games appears to lack a holistic view on the consumer and company processes, as presented by the conceptual framework. The primary research will investigate this value chain and find concrete implications for businesses.

3. METHODOLOGY

The methodology section will discuss how the primary and secondary research were conducted. Firstly, the research hypotheses will be stated. Secondly, the primary research design and data analysis will be discussed in detail, followed by the limitations of the research.

3.1. Research hypotheses

H_1: Useful strategic implications for companies can be drawn from the first stage of the customer process - intention to play

H_2: Useful strategic implications for companies can be drawn from the second stage of the customer process - search for games

H_3: Useful strategic implications for companies can be drawn from the third stage of the customer process - assessment of quality and experience

H_4: Useful strategic implications for companies can be drawn from the fourth stage of the customer process - the continued use of a game

'Useful strategic implications' are findings that companies can leverage, for example, in game development planning, or their marketing strategies. These hypotheses as well as the specific implications will be discussed in detail in part 5 - Discussion.

3.2. Primary research

In this study, a set of structured interviews was conducted to further research the implications that can be drawn from the customer process. Interviews were chosen as the primary research method of the study in order to gain a deeper insight to the issue through qualitative information. The primary study aimed to examine the consumer process find implications for the company process, and to explore the

possibilities for mobile game companies to leverage these implications to improve customer experience.

3.2.1. Interview design

Based on the conceptual framework proposed in the literature review, the interview questions were sequenced in accordance with the natural flow of the customer process. In order to facilitate the proper order and topics of discussion, the interview was highly structured. First, general questions on the interviewee's background and association with the topic were asked. Secondly, the four steps of the customer process were covered with questions from each stage. In addition, the company point-of-view was discussed with business students as a small-scale brainstorming session. The interview was designed to progress naturally from the specific customer stages to the company point-of-view discussion.

The interviews were conducted in Finland in English and all of them were one-to-one interviews conducted either face-to-face or through a video call. There were seven respondents in total, five of whom were business students. There were 30 questions in total and they included both open-ended and multiple choice questions regarding the respondent's mobile game usage behavior. The face-to-face interviews were conducted in isolated, distraction-free environments to reduce bias resulting from, for example, awareness of the surrounding people, thus ensuring data integrity. The interviews took approximately thirty to forty-five minutes, depending on the length of the responses. The interviews were all conducted within one week.

3.2.2. Demographic information

Age	Gender	Nationality	Native language	Marital status	Employment status
20 (1)	Female (7)	Finnish (5)	Finnish (5)	Single (5)	Student (4)
21 (3)	Male (0)	Vietnamese (2)	Vietnamese (2)	Divorced (1)	Part-time & student (2)
22 (1)				In a relationship (1)	Full-time (1)
26 (1)					
61 (1)					

Table 1: Demographic information of respondents. Frequencies displayed in parentheses.

Firstly, in terms of the age range, six respondents were between the ages of 20 and 30, while one respondent was in the age range of 60 to 70. The sample is highly concentrated in the ages of 20 to 30, which represents the general age distribution of mobile gamers worldwide: according to Statista (n.d.), 67% of mobile gamers in 2014 were between the ages of 16 and 34. The percentage of mobile gamers between the ages of 55 and 64 in 2014 was 3% (ibid).

Secondly, the research only studied female respondents. Women represent approximately 60% of all free-to-play mobile game players according to deltaDNA statistics (2015), therefore, corresponding research should be conducted with male respondents as well.

Thirdly, five respondents were Finnish and two respondents were Vietnamese. All Finnish respondents spoke Finnish as their only native language and all Vietnamese respondents spoke Vietnamese as their only native language. All of the respondents were permanently living in Finland. More globally representative studies should be conducted on the topic.

Lastly, six of the seven respondents were not in a relationship. Therefore, no estimates on the effect of being in a relationship on mobile gaming behavior can be made, as there were not enough respondents who were in a relationship. Six of the respondents were students, two of whom were working part-time, and one respondent was working full-time. This might have an effect on the results of the study, for example, in terms of time spent playing mobile games.

3.2.3. Data analysis

The primary data gathered from the interviews were analyzed manually. Firstly, the interview responses were gathered together in an Excel file, where they were then compared to one another. In this process, each question was analyzed separately with the aim of identifying themes and repeating answers, as well as possible outliers. In addition, (relative) frequencies were calculated and converted into tables to easily find patterns in multiple-choice questions and some open-ended questions where strong themes emerged. The findings were visualized with tables.

4. FINDINGS

This section will discuss the findings of the study. The findings will be reported according to the flow of the customer process.

How often do you play mobile games?	Relative frequency	Frequency
Every day	0.0000	0
Few times a week	0.2857	2
Few times a month	**0.4286**	3
Once a month	0.1429	1
Less than once a month	0.1429	1

Table 2: Frequency of mobile game playing

Most respondents played mobile games few times a month or few times a week. No respondents claimed to play every day. However, this may differ for an individual at various times depending on external factors, as mobile gaming is quite a context-dependent activity and might heavily be affected by aspects such as busy schedule. In addition, respondents might be reluctant to share such information in an interview, instead presenting a more socially desirable response. All respondents reported having only two (71.43%) or three (28.57%) mobile games that they play at least sometimes currently installed in their mobile devices. Only one respondent had spent real money on mobile games, and all of the purchases were one-time purchases made quite arbitrarily a small number of times.

4.1. Reasons for playing mobile games

The most common reasons for playing mobile games included playing out of boredom, playing because friends are playing the game, or playing because there is no internet connection and there is nothing else to do (related to boredom). The two most common locations for playing mobile games were home (#1) and on the bus

(#2). Both are places where a person might stay idle for an extended period of time, and hence play because they feel like there is nothing else to do.

Benefits provided by mobile games	Ranked 1st or 2nd	Ranked 1st	Ranked 6th or 5th	Ranked 6th
Enjoyment	0.2857	0.1429	0.0000	0.0000
Social interaction	0.1429	0.1429	0.5714	0.4286
Entertainment	0.7143	0.5714	0.2857	0.0000
Mobility	0.2857	0.0000	0.7143	0.5714
Relaxation	0.1429	0.0000	0.1429	0.0000
Achievement	0.4286	0.1429	0.2857	0.0000

Table 3: Rank the following benefits that mobile games can provide for players in order of importance. Relative frequencies are displayed.

Entertainment was commonly ranked as the most important benefit for the respondents. It ranked first or second most often, and was ranked first more often than any other factor. In addition, it never ranked as the least important. This can be related to the common motivation of playing mobile games for boredom. Achievement was also another important factor; however, it didn't rank first nearly as many times as entertainment. In addition, enjoyment didn't rank very high but never ranked below four. One respondent stated that in addition to these factors, self-developmental benefit, for example, brain exercising in puzzle games, was a very important benefit that some mobile games provide.

Mobility was the least important factor as a motivator to play mobile games. Interestingly, social interaction was the second-least important factor. As discussed in the literature review, previous literature on the subject generally agrees that sociability is a very important aspect of mobile games. The interview appears to indicate that, in the first stage of the customer process, sociability is only important in terms of recommendations and trends to play a certain game. Sociability as a distinct feature of the game seems to be unimportant to motivate people to play mobile games. This was confirmed by asking the likeliness of the respondents to try a game

that their friends are already playing: most people answered either 'likely' or 'very likely', as shown by *Table 4* below.

Likeliness to try a game that friends are playing	Relative frequency	Frequency	
Very likely	0.2857		2
Likely	**0.4286**		3
Somewhat likely	0.1429		1
Doesn't make a difference	0.1429		1

Table 4: How likely are you to try a game that your friend(s) is/are playing?

4.2.   Pre-download evaluation of mobile games

The respondents identified multiple different factors that are most important to them in the pre-download evaluation of a mobile game. Most of the factors were identified more than once, indicating that there may be certain aspects that the majority of players evaluate when searching for a game. The frequencies of the identified factors are displayed in *Table 5* below. Visual design (showcased with pictures and/or videos in the game distribution platform) as well as the rating and reviews of the game were the most important decision factors. In addition, word-of-mouth and product description were also very important to the respondents. Other identified factors were price, sufficient challenge and rewards, previous interest towards a specific game, game design, and the genre of the game.'

Most important aspects in the searching stage	Frequence
Product description	3
What friends say about the game	3
Visual design	4
Price	2
Game genre	1
Sufficient challenge/rewards	2
Rating/reviews	4
Interest towards game (e.g. seen in an ad)	2
Game design: Simplicity/leveling system	2

Table 5: Which aspects are most important to you when you're searching for a mobile game to play?

Furthermore, respondents were asked to choose and rank the three most important mobile game choice criteria in their opinion. The criteria include aesthetic/visual quality, social interaction with friends or other players, goal setting, customizability of game experience, satisfying compensation for playing, comprehensive product description, and ease of setup. The relative frequencies of their rankings are presented in *Table 6*. Aesthetic/visual quality ranked first more often than the other factors, correlating with the previous results presented in *Table 5*. It was also ranked most often in the top three along with ease of setup, which was ranked second most important more often than the other factors. None of the factors listed third most important stood out significantly. In terms of the top three most important factors, after aesthetic/visual quality and ease of use, the third most chosen factor was satisfying compensation, followed by communication/social interaction. When examined together with the findings in (4.1.), this could indicate that while players do not play in order to socialize, they appreciate it if a mobile game has social characteristics.

The respondents who ranked aesthetic/visual quality in the top three stated that visual appeal is extremely important, as it is more enjoyable to play a colorful and beautifully-designed game. Those who chose ease of setup stressed the importance of simplicity and speed when setting up a game – otherwise the player might get

discouraged by the complexity of the starting process and lose interest. The concept of 'ease of setup' includes the downloading of the game, which largely depends on the mobile game distribution platform and the mobile device being used. Satisfying compensation was stated to make the game more 'fun' if the player is getting something in return for investing his/her time in the game. This concept was also linked to the possible leveling system of the game: through gaining new levels players can see in a concrete way their playing skills developing, thus compensating for the invested time and effort. If the game is too difficult, one respondent stated that it is unrewarding when the player is not progressing.

As for social interaction, respondents stated that it makes the game more interesting and brings a competitive aspect to the game. In addition, one respondent said that the time they spend playing increases if they see that their friend is playing the same game. When asked about the importance of the presence of other players in the game (perceived copresence), most respondents stated it is either somewhat important of somewhat unimportant. This confirms that, while social interaction makes the game more interesting, players do not find it especially important.

Most important mobile game choice criteria	Ranked 1st	Ranked 2nd	Ranked 3rd	Among top 3
Aesthetic/visual quality	0.5714	0.0000	0.1429	0.7143
Social interaction with friends or other players	0.1429	0.0000	0.2857	0.4286
Goal setting	0.0000	0.1429	0.1429	0.2857
Customizability of game experience	0.0000	0.1429	0.0000	0.1429
Satisfying compensation	0.2857	0.1429	0.1429	0.5714
Comprehensive product description	0.0000	0.1429	0.0000	0.1429
Ease of setup	0.0000	0.4286	0.2857	0.7143

Table 6: From the following list, rank the mobile game choice criteria which in your opinion are the three most important

Importance of the presence of other players	Relative frequency	Frequency	
Important	0.1429		1
Somewhat important	**0.4286**		3
Somewhat unimportant	0.2857		2
Unimportant	0.1429		1

Table 7: How important is the presence of other players in a game?

71.43% of the respondents stated that they would not consider paying for mobile games. The remaining two respondents stated that it would depend on the game. Both respondents stressed the importance of examining the game carefully before buying and comparing advantages to costs, making sure it is of good quality and offers sufficient return for the money invested. One respondent also reported that they would look whether there is a similar game available for free before they would pay for a game. These results correspond with the earlier-discussed study by Hsiao and Chen (2016), who claimed that a very small portion of mobile game players actually pays for mobile games.

The last questions in the 'search for games' stage concerned the losing of motivation to play before even starting to play, which is a topic with lack of coverage in mobile gaming literature. The interviews revealed that this topic is certainly worth investigating: 71.43% of respondents reported having experienced the situation where they have wanted to play a mobile game and searched for a game to play, but lost motivation to play and stopped searching. One respondent compared the situation to when one is searching for a program to watch on the television and cannot find anything. Some of the reasons the respondents provided for the phenomenon included: the available games did not match their needs and wants, it took too long to find a suitable game, there were too many similar games to choose from or it wasn't released in the respondent's country.

4.3.   Post-download assessment of mobile game quality

In terms of the most important post-download mobile game evaluation characteristics, four specific ones were investigated: visual appeal, ease of use (how the game is played), responsiveness and speed of the system (lag in the game) and the gaming experience (game flow, immersion). The results are presented in *Table 8* below. These factors had no large differences in importance among them, only the responsiveness and speed of the system was slightly more important than the other features. In addition, gaming experience ranked third more often than the other factors. The findings indicate that people value different aspects of the game, however, it is important that the game is working properly for the player to enjoy it. For example, in the case of one respondent, a glitch in a mobile game deleted their progress in the game and they would have had to start over, which made the respondent to stop playing the game altogether.

Most important mobile game evaluation characteristics	Ranked 1st or 2nd	Ranked 1st	Ranked 2nd	Ranked 3rd or 4th	Ranked 3rd	Ranked 4th
Visual appeal	0.4286	0.1429	0.2857	0.5714	0.2857	0.2857
Ease of use	0.4286	0.2857	0.1429	0.5714	0.2857	0.2857
Responsiveness and speed of system	0.7143	0.2857	0.4286	0.2857	0	0.2857
Gaming experience	0.4286	0.2857	0.1429	0.5714	0.4286	0.1429

Table 8: Rank the following evaluation characteristics of mobile games in order of importance

All of the respondents reported having played some type of freemium mobile game. Their feelings towards in-app purchases were further investigated. Most of them stated that they understand that the game must make a profit somehow, and if the game is sufficiently playable without using real money, it is acceptable. However, many found it annoying if some essential features in the game are not accessible or the game becomes unplayable if one does not pay for it. Such unplayability could be, for example, frustratingly slow progression in the game. One respondent raised an ethical question in terms of freemium pricing – if a player is addicted to a game and cannot control him/herself, he/she could end up spending quite a lot of money in a game that asks for money in exchange for faster progression and special benefits. In addition, over half of the respondents would never consider making an in-app

purchase, as they felt that games are just for casual playing, and if a game became nearly impossible to play without paying they would stop playing altogether. Some, however, claimed that they might be ready to pay if they very much liked a game and paying would make it easier.

Mobile security was quite important for the respondents, which corresponds with the previous research made on the subject. Three respondents stated that mobile security is very important to them, two stated that it is important, and two stated that they do not pay much attention to it. Personal information was a rather common concern among those who responded that mobile security is important or very important, and the amount of private information required by the game in many cases affected whether they continued to play the game. A few also reported always reading the terms and conditions carefully. Those who responded that they do not pay attention to mobile security stated that they trust that the game is secure.

Music in mobile games was generally very unimportant to the respondents. As many people often play mobile games on the bus, they prefer to keep the sound turned off completely to avoid annoying the surrounding people. In some situations, respondents reported turning the sound off and listening to something else instead, due to being annoyed by the music. Respondents generally expressed a distaste towards mobile game music in general, and bad music was claimed to reduce the enjoyability of the game. It was stated that it is positive if the mobile game music is good and the music is more important if one is wearing headphones. However, in many situations the respondents would be forced to turn the music off. It can be therefore concluded that mobile game music does not have a very good image among players and the threshold to muting the sounds of the game is generally quite low.

4.4.   Continued use of a mobile game

When asked to estimate how many games the respondents had kept over an extended period of time (*Table 9*), 42.86% of respondents had kept all of their downloaded mobile games for over a week. 71.43% of respondents had kept over

80% of their games, and only one respondent had kept less than 50% of their games for over a week. Factors related to game design were the most common reasons for continuing to play (*Table 10*). More specifically, good leveling system, achievements/challenges and the flow of the game (sense of getting forward) were the most frequent answers within the category, and all were associated to the game being 'rewarding'. Good gameplay and the game being 'addictive' were factors that came up frequently as well. Other factors that were mentioned regarding game design were the game providing a lot of content, being relatively easy to play and having uplifting music. Sociability was another trend that came up frequently, and the most often mentioned factors contributing to continued use were the game 'trending' and friends playing the game as well. In addition, many respondents stated that they generally only download games that they know they will play for a long time. This contributed to the large amount of people stating that they keep 100% of the games that they download over a week.

%-age of games continued to play over a week	Frequency	Percentage	Cumulative percentage
100%	3	42.86%	42.86%
90%	1	14.29%	57.14%
80%	1	14.29%	71.43%
50%	1	14.29%	85.71%
5%	1	14.29%	100%

Table 9: Estimate the percentage of games that you continue to play for more than a week after downloading it, out of all games you download?

Factors contributing to condinued use	Frequency
Game design:	14
Achievements/challenges	2
Game flow: sense of getting forward	2
Good leveling system	3
Long game (provided a lot of content)	1
Has good gameplay	2
Easy to play	1
Happy music	1
Addictive	2
Social:	4
Trendy game/friends are playing	3
Good memories related to it	1

Table 10: Think about some of the games that you've continued to play for more than a week. What made you continue to play them specifically?

In terms of the reasons why respondents did not continue to play some games for over a week, a few themes appeared to emerge: interest, game flow and instructions (presented in *Table 11*). Lack of interest was the most common theme, and was often caused by the player getting bored of the game or the game not meeting the player's expectations. Disrupted game flow was the second most frequent contributor to discontinued use, for example, due to the game being too difficult or, as in the case of one respondent, a technical glitch which caused the player to lose their progress in the game. Bad/complicated instructions and rules also caused people to stop playing a specific game, as well as the game taking too much space on the mobile device.

Factors contributing to discontinued use	Frequency	
Game flow:		3
Game was annoyingly difficult		2
Technical glitch (game deleted progress)		1
Instructions:		2
Rules/game too complicated		1
Bad instructions		1
Interest:		4
Not interesting/I got bored		2
Did not meet expectations		2
Other:		2
Takes too much space		2

Table 11: Think about some of the games that you did not continue to play for more than a week. Why did you stop playing them?

4.5. Implications for mobile game companies

The implications for companies were discussed as a short brainstorming session with five respondents, all of whom were business students. Some specific themes could be identified from the gathered data: marketing, game design, availability, game versions and product description. Marketing was a topic that was discussed most often by respondents, followed by product description and game design.

In terms of marketing, word-of-mouth and distinguishing the game from others were frequently discussed. Word-of-mouth was stated to be especially important in mobile games, which is supported by the interviews: respondents were generally quite likely to try games recommended by their friends, which was also an important decision factor for downloading a mobile game. One respondent stated that other marketing efforts, such as advertising, might be somewhat ineffective since word-of-mouth is extremely important. In addition, companies should target those who might be most interested in a specific type of game - for example, advertising sports games in sports

websites. Several respondents also stressed the importance of search engine optimization and making the game visible in the top charts of the mobile game distribution platform. "People often know what they're looking for. It's important to distinguish yourself from others since it's hard to find good games when there are so many." Some respondents also suggested more traditional methods of mobile game marketing, such as advertising in other games to increase consumer awareness.

Game design was discussed from multiple different viewpoints: rewards, flow, consistency and trends. Corresponding with the findings from the interviews, the respondents wanted the game to be rewarding from the beginning, as well as fast-paced since the player usually only plays for a short period of time, compared to regular video games. In addition, incentives for players to continue playing, consistency in game content (not changing too much over time), moderate difficulty and the speed and effortlessness of starting to play were important to players. One respondent, referring to the current augmented and virtual reality boom, also mentioned the importance of the company keeping up with current trends and technological advancements. These are factors that mobile game companies should take into account when developing new games.

Many interviewees highlighted the importance of mobile game companies making an effort to create an attractive product description. It was said to be very important for customers, and should include a comprehensive description about the game (not merely marketing slogans), as well as make the game look visually appealing with pictures and videos. One respondent, for example, stated that a visually appealing product description made her search for more information about the game. It was also stated to be worthwhile to put an effort into reviews, since people often may choose the game based on the reviews. In addition, one respondent stated that in premium games companies should give players free trial sessions or demos of the game. That might gain the player's interest and make them more willing to pay for the whole game.

Some respondents also discussed the availability and different versions of mobile games. Firstly, it was stated that companies should publish the game in many different markets as soon as possible. For example, Pokémon Go went viral very fast

after its initial release in 2016 but it was unavailable in many countries, and remained to be unavailable in many markets for a long time. In that case, many people wanted to play the game but could not due to the unavailability. In addition, one respondent expressed frustration towards some games being released only on certain devices, for example, exclusively on the iOS. Secondly, respondents stated that games mobile games should not have to update too often, as additional updates take space on the device. In addition, some mobile game companies release different versions of the same game as separate downloads, which, if the player wants to play them all, also takes up a lot of space on the device. This was a source of annoyance for one interviewee. However, some respondents were also in favor of updates, stating that it is positive when the game keeps improving.

5. DISCUSSION

The discussion of the research findings will henceforth be related to the company process presented in the customer value chain, linking the previously discussed customer process to the mobile game company point-of-view. First, awakening the customer's desire to play will be discussed, followed by attracting the customer in the searching phase. The post-download stages of creating positive associations for customer assessment and retaining the customer will then be examined. The stages will be related to the hypotheses presented earlier.

5.1. Awakening desire to play

H_1: Useful strategic implications for companies can be drawn from the first stage of the customer process - intention to play

Studying the most common locations where people play mobile games and the reasons for playing could yield some useful information for mobile game companies. For example, the information could implicate when and where marketing activities are most useful. As the most common reason for playing mobile games among respondents was boredom, mobile game companies could advertise their games in places where people normally have to wait for long periods of time. Such places include, for example, public transport vehicles and stations, as the second most common location to play mobile games after 'home' was 'on the bus'. In addition, mobile game companies could advertise mobile games on the television, social media and other internet sites that people might visit when they are bored at home. In addition, the interviews revealed that word-of-mouth is an important factor for mobile game companies to consider: to get players talking about the game with their friends. However, there appears to be a gap in academic literature on the subject of word-of-mouth marketing and mobile games.

The most important benefits that mobile games provide for players mostly have implications concerning the game design. The game should be entertaining enough

to decrease the player's boredom and set challenging but attainable goals in order to stimulate sense of achievement, while providing an enjoyable experience and possibly incorporating self-developmental elements, such as puzzles. These aspects could be emphasized in the marketing for the game: the game is a solution to fulfill the specific needs of entertainment, achievement and enjoyment. As discussed in the research findings, the social aspect of games in the 'awaken desire to play' stage of the company process is only important in terms of word-of-mouth. Therefore, marketing the communication and social interaction characteristics in the game might be somewhat redundant as socialization is not one of the primary reasons why people play mobile games. In addition, the need to socialize with other people can be fulfilled by other means - for example, in social media.

5.2.   Attracting the customer

H$_2$: Useful strategic implications for companies can be drawn from the second stage of the customer process - search for games

For mobile game companies, the most important aspects to which the respondents paid attention in the searching stage provided implications for both marketing and game design. Word-of-mouth was found to be very important in the searching process as well, in the form of ratings and reviews displayed in the game distribution platform in addition to friends' comments and recommendations. This has been realized by mobile game companies as well, since mobile games have increasingly attempted to give players incentives to rate and review the game, for example, in the form of in-game benefits such as experience points. Due to the large amount of games available, it was found to be important for mobile game companies to distinguish themselves and their games. Some methods suggested by the interviewees were advertising, making the game visible in the top charts of the distribution platform, as well as search engine optimization. Innovativeness also came up in the interviews as one method to distinguish oneself – setting trends and adopting new technologies. One such example is Pokémon Go, which was not the first application or game to utilize augmented reality, but with its worldwide success it started a new mainstream trend in mobile gaming.

The study found that companies should put effort into the game description, making it appealing in terms of visual imagery and informative content. In terms of the game design, aesthetic quality of the game itself and satisfying compensation through leveling were quite important to players as a choice criteria. Therefore, developers should make sure that the customers can see that these qualities are in the game from the product description and other forms of marketing. For the respondents, the description in many cases was reported to be quite an important aspect when choosing a game. However, product description as a mobile game choice criteria was found to be rather unimportant compared to, for example, the aesthetic quality of the game. This indicates that description is important as a platform to showcase the game but not as a choice criteria itself. Companies should nevertheless invest time and effort into the product description, as bad product description could possibly turn away customers. The process of setting up a game should also be made easy, however, as this is mainly an issue for the distribution platform and the company that designed the mobile device, mobile game companies can only affect this through choice of platform and type of device.

Mobile gamers were found to be generally quite reluctant to pay for mobile games, and they want to carefully evaluate the game before making a purchase. Therefore, the product description, along with the other pre-download evaluation factors, ought to be even more important for premium games than for free-to-download games as the customer is making a purchase decision based on them alone. As mentioned by one interviewee, mobile game companies could provide demo/trial versions for players to try the game before purchasing to increase the possibility of the customer buying the game.

Two relevant factors were found to contribute to mobile gamers losing motivation to play: there were too many similar games available, or a specific game was not available for the player at all. Firstly, mobile game companies should not develop similar games targeting similar audiences with the hopes of the players playing all of them. The research found that respondents often had only two or three games installed on their mobile devices that they played at least sometimes, and many expressed concern towards games taking up a lot of space on their mobile devices.

Therefore, when presented with many different options, they would likely only choose one game that they find most interesting or not play any of them, as one respondent stated that one of the reasons why they lost their motivation to play was having too many similar options. Another factor that contributed to mobile gamers losing motivation before starting to play was the game not being available to them, either due to their geographical location or the device they were using. Due to the unlimited flow of information, prospective players around the world can hear about trends in other countries, and if a game is popular in one country or area they might be disappointed if they find that it isn't available in their own area. Therefore, mobile game companies should make mobile games available in as many countries as possible. Similar issue was reported to be found across different platforms – some popular games had not been released, for example, for Android devices, causing frustration.

5.3. Creating positive associations

H₃: Useful strategic implications for companies can be drawn from the third stage of the customer process - assessment of quality and experience

In the post-download evaluation stage, implications can mainly be drawn from the game design. The research found that aesthetic quality, ease of playing, responsiveness (lag), and game flow/immersion were all somewhat equally important, and the only one that stood out was responsiveness. This indicates that even if the game looks good, is not too complex and flows well in terms of levels, lagging issues may have a large negative impact on the gaming experience. Developers should therefore pay attention to the technical details in development as well as the network. The security of the networks is also very important to maintain, as players are generally concerned about their personal information. In terms of specific game qualities, the game should be rewarding, fast-paced, challenging but not too difficult, and quick to launch, to keep players interested in the game. Music was generally quite unimportant to players, and often players muted the sounds due to being in a public place. Therefore, it might be preferable for mobile game

companies to prioritize, for example, responsiveness, the visuals and the flow of the game before the music.

Pricing in free-to-play games may be somewhat difficult, as the game should make a profit but relatively few people actually pay for freemium games. Many respondents expressed that the game should be playable without being 'forced' to either pay or quit. It was also stated that due to the casual nature of playing mobile games, many respondents did not want to spend money on them, and some only expressed willingness to pay if they were really invested in the game in terms of time and effort. One strategy is that mobile game companies could employ is having no notifications or prompts related to using real money in the beginning – only after the player is sufficiently invested in the game. However, as mentioned by one respondent, this could be an ethical issue if the player is considered to be 'addicted' to the game. It has been suggested that "interactive media", including mobile games, could be another replacement for drugs among teenagers as the necessity of sensation seeking is fulfilled in a similar way (Richtel, 2017). Pricing for especially freemium mobile games can therefore be tricky due to only a small percentage of players paying for the game, and freemium pricing possibly having negative effects as well.

5.4.   Retaining the customer

H_4: Useful strategic implications for companies can be drawn from the fourth stage of the customer process - the continued use of a game

Most of the reasons why respondents continued to play some mobile games for over a week were important factors in other customer process stages as well: the game should have a good leveling system, be challenging enough but not too difficult and flow well. In addition, sociability in terms of the game trending and other people playing as well was reported to be important in the 'continued use' stage. Mobile game companies could also provide different incentives for players to keep playing: for example, by offering a bonus if the player returns to play daily. Repetitiveness can cause boredom in players: mobile game companies should favor quality over quantity in level design. In addition, developers should keep improving the game constantly,

however, the game should remain consistent throughout its life and not change too much in content from the original version. The game should not be updated too frequently, either, as it causes frustration in some players and may cause them to delete the game, fearing the updates take too much space on their devices. Rather, developers should favor updating less frequently but making the updates larger in size. In addition, to increase the continued use of the game, it should be playable without having to spend real money, and possible bugs and glitches should be eliminated at a constant rate.

6. CONCLUSION

The current study introduced the concept of customer value chain, where the dynamics between the customer process of finding, downloading and playing a game and the corresponding company process are presented. The customer process includes intention to play, search for a game, assessment of quality and experience and retaining the customer. The customer process was further researched, aiming to find implications for the company process of awakening desire to play, attracting the customer, creating positive associations and retaining the customer.

6.1.   Main findings

Firstly, the findings from the 'intention to play' stage of the customer process implicated that the most common locations for playing mobile games are at home or on the bus, and the most common reason for playing is boredom. Therefore, advertising in, for example, bus stops or websites that people might visit when they are bored, could be effective. It was also found that socialization is usually not the main reason for playing mobile games; however, word-of-mouth is extremely important in awakening the customer's desire to play.

Secondly, in terms of the 'searching for a game' and 'attracting the customer' stages of the customer value chain, distinguishing the game from others was found to be very important. This could be achieved through gaining visibility in the distribution platform top charts, search engine optimization, word-of-mouth and innovativeness, for example. It was also found that the product description is an important platform to showcase the game and should be made visually impressive and informative. This is especially true with premium mobile games, as players generally do not want to pay for mobile games. The two most common reasons for the players losing their initial motivation to play in this stage were 1. there were too many similar games available, and 2. the game was not available in their country or for their device. Mobile game companies should therefore develop different types of games that are distinguishable

from the other games in the market, and attempt to publish the games in as many countries as possible.

Lastly, in the post-download evaluation stages of 'assessment of the quality and experience' and 'customer retention', implications for the corresponding company process stages can largely be drawn from the game design. It was found that responsiveness/speed of the game is more important than other game qualities, as lag in the game may trigger a stronger negative response from the player than a deficiency in any other quality, such as visual design and the flow of the game. In addition, the security of personal information is generally important to the players. Technical glitches and security are issues that should be a high priority in the development of a mobile game, and should be continuously worked on as the game is launched. Pricing is a somewhat difficult issue in free-to-play games as the game should make a profit without driving away customers or being ethically questionable. In terms of continued play, specific mobile game characteristics were identified that are also important in other stages of the customer process as well: good leveling system, enough challenge and good game flow. The fact that other people are playing and the game is trending also contributes to continued use of the game. In addition, mobile gaming companies should avoid too frequent updates, changing the game too much and forcing players to pay in order to play.

6.2. Limitations of research

The current study is exploratory in nature and requires further research on the topic. As all the respondents studied in this research were female, more research should be conducted on male respondents, as well as comparative studies between the two genders. The sample in this research was quite small and the study was conducted in one country with participants from only two different cultures, therefore the generalizability of the findings can be somewhat limited. The current study lacks quantitative research and analysis on the topic, and further analysis on the impact of factors such as age and employment status on mobile gaming behavior should be conducted.

6.3.   Implications for international business

Mobile gaming and mobile game developing are a global concept, due to their digital nature: anyone can develop a mobile game and it can be distributed and played nearly everywhere in the world. Generally, mobile game companies publish their games and operate in more than one country, which makes mobile gaming an international field of business. Therefore, the implications drawn from the current research are contributing to international business. The findings of the study can be used by international mobile game companies to gain strategic insights about their customers in order to improve game development planning and execution, marketing strategy, as well as post-release game maintenance. This can contribute to the company's ability to succeed in the highly competitive industry.

6.4.   Suggestions for further research

The concept of customer value chain in the mobile gaming literature is new, and should be further researched. As the current research was purely qualitative, quantitative research should also be conducted on the topic. A quantitative study would also facilitate gathering a globally representative sample more easily than a qualitative one. In addition, the research only studied women; therefore, a similar study on male respondents should be conducted as well, which could be followed by comparative studies on mobile game purchase behavior between the two genders. An interesting topic that emerged from the current research is word-of-mouth marketing and mobile games, which is quite an important factor in more than one stages of the customer process and has not been previously researched to the extent of the current knowledge. In addition, as indicated by the literature review, the loss of motivation to play in the 'searching for games' stage, as well as the 'continued use' stage as a whole, have not been extensively researched, which is another gap in mobile gaming literature for future research.

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Appendix: Interview questions

<u>Part 1: Screener Questions and Basic Information</u>

1. Have you played a mobile game before?
    a. Yes
    b. No

[If No, interview is terminated.]

The following basic information will be completed by the interviewer:

Date of the interview:

Time of the interview:

Type of interview: a) face-to-face, b) phone, c) Skype

Gender of respondent: a) male, b) female

<u>Part 2: Demographic Information</u>

2. What is your age? _____

3. What is your nationality? _____

4. What is the language most commonly spoken in your household? _____

5. Marital status
    a. Single
    b. Living common law
    c. Married
    d. Divorced
    e. Widowed
    f. Other: _____

6. Employment status
    a. Full-time
    b. Part-time
    c. Student
    d. Unemployed
    e. Retired
    f. Other: _____

7. How often do you play mobile games?
    a. Every day
    b. Few times a week
    c. Few times a month
    d. Once a month
    e. Less than once a month

8. How many mobile games do you currently have in your mobile device that you play at least sometimes?

9. Have you ever spent money on a mobile game? What kind of purchase was it? (For example, a one-time purchase or in-app purchase)

10. [If Yes] Estimate the percentage of games you've spent money on, out of all games you've downloaded.

Part 3: Intention to play - What makes you want to play?

11. When you feel that you want to play a mobile game, what are the most common reasons for that?

12. In which situations/locations do you most often play mobile games?

13. Rank the following benefits that mobile games can provide for players in order of importance:

___ Enjoyment

___ Social interaction

___ Entertainment

___ Mobility

___ Relaxation

___ Achievement

14. Are there any other aspects you can think of that mobile games provide for the players that weren't included in this list? How important are they to you?

15. How likely are you to try a game that your friend(s) is/are playing?

    a. Very likely

    b. Likely

    c. Somewhat likely

    d. Doesn't make much of a difference

Part 4: Search for games

16. Which aspects are most important to you when you're searching for a mobile game to play?

17. From the following list, rank the mobile game choice criteria which in your opinion are the three most important:

___ Aesthetic/visual quality

___ Social interaction with friends or other players

___ Goal setting

___ Customizability of game experience

___ Satisfying compensation

___ Comprehensive product description

___ Ease of setup

18. Why did you choose these?

19. How important is the presence of other players in a game? For example, you cannot necessarily directly interact with other players but you can still see their score.
    a. Important
    b. Somewhat important
    c. Somewhat unimportant
    d. Unimportant

20. How much does price affect your purchase decision?

21. Have you ever experienced the situation where you want to play a mobile game, search for a game to play but then lose motivation to play and stop searching?
    a. Yes
    b. No

22. [If Yes] Why do you think this happened?

Part 5: Post-download assessment of quality and experience

23. Rank the following evaluation characteristics of mobile games in order of importance:
    ___ Visual appeal (What does the game look like?)
    ___ Ease of use (How to play the game?)
    ___ Responsiveness and speed of the system (Is there lag in the game?)
    ___ The gaming experience (Does the game flow well? Is it easy to be immersed in the game?)

24. Have you ever played a freemium game?
    a. Yes
    b. No

25. [If Yes] How do you feel about games that offer in-app purchases? In which situations have you made/would you consider making an in-app purchase?

26. How important is mobile security to you? How often do you think about it?

27. When compared to aspects like visual appeal, ease of use, speed of the system and the gaming experience, how important is the music in the game to you?

Part 6: Continued use

28. Estimate the percentage of games that you continue to play for more than a week after downloading it, out of all games you download?

29. [If answer to Q25 is more than 0%] Think about some of the games that you've continued to play for more than a week. What made you continue to play them specifically?

30. [If answer to Q25 is less than 100%] Think about some of the games that you did not continue to play for more than a week. Why did you stop playing them?

Part 7: Brainstorming - The customer process as a whole and implications for companies [If respondent is a business student]

Let's think about the process that we just went through from wanting to play and searching for a game to playing the game, assessing it and continuing to play it. Can you think of any specific ways companies could leverage all this information to improve the whole customer experience? For example, in terms of the game itself, marketing and the place where you download the game?