

How is release cycle and business model reflecting the success of mobile game?

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Abstract. Since the first generation of Apple's iPhone we have seen the growth of mobile gaming. Apple changed the business by providing one single point where users of its mobile phones could get games. In the same time more and more games were provided as free, but still the game companies were collecting revenues. It leads to the interest of free-to-play revenue model. Now we have many success stories describing how startups make millions by giving games away for free and still gaining revenue. In this article we compare a successful reference case with two smaller cases in order to investigate the impact of fast release cycle and revenue model.

Keywords: computer games, business model, release cycle, revenue model, success story

1 Introduction

Software ecosystem is defined as a system consisting of infrastructure and the set of software solutions that enable, support, and automate the activities of actors and relationships between these actors [1]. In 2007 Apple released its first generation iPhone and one year later iTunes App Store that has changed the way of how the games are developed, delivered, and consumed. Before iPhone and App Store the simple java games were sold through portals of different mobile operators and the developer had to take care of infrastructure for delivering, purchasing, and releasing new versions of their apps. With the creation of own ecosystem, Apple provided an opportunity for developers on creating applications rather than on creating and supporting infrastructure for delivering these applications to the customer [2]. This allowed developers to have a common platform for getting access to the customers and receiving aggregated feedback from them [2].

One of the philosophies in the open source development is the “release early, release often” [3], which means the first release is done in the very beginning of the project and release cycle is kept fast as all the new features are available for testing right away. With the growing popularity of application stores like AppStore and Google Play, game developers got a tool for releasing games early and then updating

these games, and providing customers with new levels, features, and characters frequently.

Application stores were a driving force in the creation of new business models. Ren and Hardwick studied Chinese online game industry and noted how it had changed first from time-based revenue model to item-based one [4]. In the first one the gamer paid for access to the game and in the latter the game is free and the gamer pays for items in the game. The latter is now known as free-to-play model.

The rise of the mobile game industry came with free-to-play model where gamer is getting the whole game for free, but he or she can be offered advertising and the game itself is less demanding if the gamer uses in-app-purchasing option to get better items. With these two things the developer company generates revenue stream and they build their business model over this revenue model.

Overall, application stores introduced changes in the process of game development and provided infrastructure to access a huge audience of users. However, it is still not clear what factors have effect to the success of games. In this study, we selected two factors, release frequency and revenue model, in order to compare a reference successful company with the two other companies. Our aim is to understand whether frequent releases have impact to the success of games and what frequent releases mean in practice.

2 Reference success story

The Supercell company represents a new case of success story in the game industry. Founded in 2010, the company has released two major games, HayDay and Clash of Clans. In autumn 2013, the company has received a strategic investment of 1.5 billion dollars from a Japanese company and a bank in order to strengthen its expansion to the Japanese market and to become “the first truly global game company”. With this investment, the total valuation of the company is about 3 billion dollars. Even more important is that Supercell is a pioneer in getting the profit from the adoption of free-to-play revenue model. Both games are distributed through device-specific market place for free and can be played for free. However, in order to accelerate the game progress and get some special benefits, a player should pay for it.

Another specific characteristic of Supercell as a company is the adoption of the principle “release often” initially introduced by Raymond [3]. Although Supercell games are proprietary, it is possible to get the information about all public releases from places like the iTunes store. We collected the information about releases with the aim to create a timeline of release for both games (Table 1).

Leaving out several outliers between releases that took more than 50 days, the average time between public releases has been three weeks. This pace of speed points out that the company constantly experimenting with new opportunities like new game characters, levels, features and try to bring better customer experience to the gamers by balancing the game rules and prior content considered harmful to the game experience. Receiving instant feedback from their customers, Supercell managed to achieve unprecedented growth of the user base. There are many factors such as X, Y

or Z that contribute to this success, but in this paper we concentrate on two factors: A and B. What impact these practices have, and what they can mean for the future of the industry.

Table 1. Timeline of releases at Supercell

Clash of Clans			HayDay		
Date	Release	Days since last release	Date	Release	Days since last release
13 June 2012	1.7	0	03 May 2012	0.2.134	0
02 July 2012	1.91	19	16 May 2012	0.2.248	13
02 August 2012	2.3	31	25 May 2012	0.3.7.69	9
30 August 2012	2.21	28	21 June 2012	0.4.37.1	27
19 September 2012	2.44	20	12 July 2012	0.5.16.47	21
15 October 2012	2.73	26	09 August 2012	0.6.10	28
27 October 2012	2.86	12	15 October 2012	1.2.24	67
19 November 2012	2.111	23	15 November 2012	1.3.50	31
10 January 2013	3.3	52	05 December 2012	1.4.43	20
05 February 2013	3.25	26	08 January 2013	1.5.53	34
12 March 2013	3.54	35	21 January 2013	1.6.43	13
17 April 2013	3.124	36	24 February 2013	1.7.42	34
23 May 2013	4.14	36	06 March 2013	1.8.11	10
17 June 2013	4.53	25	14 April 2013	1.9.65	39
29 July 2013	4.74	42	13 June 2013	1.10.77	60
27 August 2013	4.12	29	10 July 2013	1.11.47	27
30 September 2013	5.2	34	12 September 2013	1.12.137	64
10 October 2013	5.2.2	10	16 October 2013	1.13.284	34
06 November 2013	5.64	27			

3 Case descriptions

We selected two small game companies and investigated their release cycles and revenue model in order to find differences and similarities with the reference case (Table 2). Both products from both companies can be considered successful; Case A has fulfilled the financial requirements set for the product, while Case B has reached the intended amount of players and play sessions per day.

Case A utilizes hybrid revenue model, where it uses pay-to-play model when new game is released and gain direct revenue from gamers. When the selling rate starts to decay the company starts to offer game as free and changes its revenue model to free-to-play and collects revenue in-app purchasing.

Case B goes with free-to-play revenue model, where their game is available for free and the revenue is generated through in-app-purchasing model. Gamer is able to score high points without paying anything, but it is highly unlikely to happen. By buying better items the changes of getting better results increases significantly.

Table 2. Characteristics of case companies

	Case A	Case B
Employees	8	3 full time, 1 part time
Platform	Mobile (iOS, Android), PC, Mac OS X	Browser-based HTML5 in a medium sized social media platform
Unique game experience	Game session take 3-5 minutes to complete. It is not enough to play for few seconds in a bus line.	The game session is not limited to one device but it can be continued with different devices.

We also studied the history of releases in both cases. As our reference game company Supercell, the case companies are also trying to have similar fast release cycle where they put out new version of the game every four weeks or less. However, in practice it has been rarely observed in practice in Case A (Table 3). The average period of releases for Game A in Case A was 79.8 days with the standard deviation of 100.7 days. In case of Game B the average period of releases was 52.5 days with the standard deviation of 67 days. These numbers are mainly explained by delays in Release E (Game A) and Release D (Game B). These releases were major and required significant changes that could not be done quickly. Excluding these outliers, the release cycles are getting closer to three weeks release cycle for both games.

Table 3. Release cycles at Case A

Game A, Case A	Days since last release	Game B, Case A	Days since last release
Release A	0	Release A	0
Release B	12	Release B	23
Release C	32	Release C	21
Release D	49	Release D	258
Release E	258	Release E	48
Release F	48		

Case A had success with its game and it was downloaded over 1 million times. The company made several updates to the game when it had its peaks in downloading. The initial release of the game was with pay-to-play model, but after the biggest selling burst was over the game was given as a free-to-play with advertising and in-app-purchasing as revenue sources. After the amount of downloads decreased the updates were also stopped, but when the company released a new game (Game B) they also put the first game back to pay-to-play and released new updates to the game. The aim was gather the gamers of new game to check out also the first game and thus gain revenue.

We do not have exact release history of case Case B as they used rolling release method, where bugs were fixed fast and new features were introduced when they were ready. The philosophy of Case B is that they listen to their customers very carefully, answer every question and try to implement all the most proposed ideas that the gamers give to them. This leads to the situation where new updates are put in use

as often it is possible. Case B gave new releases to their game as long as they saw it beneficial to their business.

We consider both of these cases as success stories in the sense of number of gamers. Case A gained millions of downloads and Case B was reported to gather over million players.

4 Discussion and conclusion

We have noted that our case organizations try to emulate the same kind of fast release cycle as our reference case. However, having limited resources for development it is not always possible and therefore we observed the variation in the number of days between releases. This can be considered as the feature of the game industry characterized by a high level of creativity and uncertainty [5]. The sporadic processes are common for small companies in general and game start-ups in particular [6]. However, as the company grows, its processes become more focused and they do not significantly differ from other organizations that develop software products. Our reference case illustrates it: having millions of downloads every day, it is not possible to manage the company and plan releases sporadically and therefore more formal practices to management and development of games are needed.

Although our case companies are successful in general, this success consists of peaks of downloads and relatively flat number of downloads between the releases. With the limited resources available, the companies try to experiment with other characteristics of games like revenue models. The reference case shows that even giving a game for free and adopting the free-to-play revenue model with in-app purchases it is possible to generate constant cash flow. However, the success story does not consider that many failures also exist. Game products differentiate horizontally, which means creation of novel products without making them fundamentally different from other products [7]. In other words, the investigation of success factors in the game industry is difficult due to the similarities of companies producing game companies. The origin of the most commercial success stories seems like random chance rather than a result of systematic approach to management or development. In addition, game products are directed at a mass public and are developed for entertainment rather than for a clearly utilitarian purpose [8]. Therefore, the fast release cycle plays an important role for getting constant feedback from users and keeping them constantly involved into the game. Fast release cycles also enables the organizations to test out new concepts, and fix the user experience quickly should there be problems with the internal rules or mechanics, such as user interface or control scheme.

The free-to-play revenue model allows getting payments from users when they are already involved into the game process. It highlights the role of emotional requirements in game development [9]. With the infrastructure provided by application stores, game developers do not need to develop it themselves and users can use the same process for paying for different games.

Overall, the comparison of a successful game company that we used as a reference model with two smaller game companies revealed that fast release cycle is important for developing successful games but it is difficult for small companies to keep pace of releases due to the resource constraints. It leads to the long periods between releases and, as the results, peaks of downloads after releases with flat periods of “silence” afterwards. In order to keep a high number of downloads, the game company should keep the users constantly involved into the game process by providing new levels, features, patches and characters. This is possible with fast release cycle. In this regard, fast release cycle can be considered as one of success factors for game development. Our cases revealed that fast release cycle is about three to four weeks. However, we can expect that this time will be shortened due to the competition in the game industry [10].

A combination of emotional and experience requirements [6, 9] also allows companies to utilize free-to-play revenue model. This revenue model proved to be successful but its direct emulation is not possible due to many other factors affecting the success of game products.

Overall, in this short study we investigated one hugely successful game company with two smaller game companies that also seems to be successful and concluded that fast release cycle is a necessary factor for developing hits. However, it is only necessary but not enough and therefore the investigation of other factors and practices adopted by game companies is needed in the future.

Acknowledgements

This study was partially funded by the European Union Regional Development Grant number A32139 “Game Cluster” administered by the Council of Päijät-Häme.

References

1. Bosch, J.: From Software Product Lines to Software Ecosystems. Proceedings of the 13th International Software Product Line Conference. pp. 111–119. Carnegie Mellon University, Pittsburgh, PA, USA (2009).
2. Bergvall-Kåreborn, B., Howcroft, D.: The Apple business model: Crowdsourcing mobile applications. *Accounting Forum*. 37, 280–289 (2013).
3. Chen, W., Krishnan, V., Zhu, K.: “Release Early, Release Often”? An Empirical Analysis of Release Strategy in Open Source Software Co-Creation. PACIS 2013 Proceedings (2013).
4. Ren, J.Q., Hardwick, P.: Revenue Model Innovations in the Chinese Online Game Market. Proceedings of the 12th International Conference on Entertainment and Media in the Ubiquitous Era. pp. 44–48. ACM, New York, NY, USA (2008).
5. Tschang, T.: When does an idea become an innovation? The role of individual and group creativity in videogame design. DRUID Summer Conference. 12–14 (2003).
6. Callele, D., Neufeld, E., Schneider, K.: An Introduction to Experience Requirements. Requirements Engineering Conference (RE), 2010 18th IEEE International. pp. 395–396 (2010).
7. Lampel, J., Shamsie, J.: Critical push: strategies for creating momentum in the motion picture industry. *Journal of Management*. 26, 233–257 (2000).

8. Hirsch, P.M.: Processing Fads and Fashions: An Organization-Set Analysis of Cultural Industry Systems. *American Journal of Sociology*. 77, 639 (1972).
9. Callele, D., Neufeld, E., Schneider, K.: Emotional Requirements in Video Games. *Requirements Engineering*, 14th IEEE International Conference. pp. 299–302 (2006).
10. Lin, H., Sun, C.-T.: Cash trade within the magic circle: Free-to-play game challenges and massively multiplayer online game player responses. *Proceedings of DiGRA 2007*. 335–343 (2007).