



Mobile games: leading, but less lucrative

Deloitte Global predicts that in 2016 mobile devices (smartphone and tablet) will become the leading games platform by software revenue, generating \$35 billion in revenue, up 20 percent from 2015. This compares to \$32 billion for PC games and \$28 billion for console games, up only five and six percent respectively from the previous year.

However we expect average revenue per game by platform to vary significantly. We forecast \$4.8 million per console game available, \$2.9 million per PC game, but only \$40,000 per mobile game¹⁵⁸. We estimate average annual spending on content per mobile games player to be about \$20. This compares to \$50 per PC games player, and \$145 per console player. While many tens of thousands of companies create mobile games, we would expect only about 200 mobile games companies will gross over \$1 million in 2016. There are three main reasons explaining the acute differences in revenue per game.

The first is the size of the installed base. We estimate about 1.75 billion smartphones and tablets will be used to play games frequently as of end-2016, out of a total base of 2.7 billion smartphones and 750 million tablets¹⁵⁹. This compares to the just over 600 million who play games regularly on PCs, and approximately 200 million for games consoles¹⁶⁰.

A second fundamental difference is barriers to entry. A typical latest-generation (also known as AAA) console or PC-based game costs tens of millions of dollars to produce¹⁶¹, a similar sum to market¹⁶², and can take several years to develop. Mobile games have relatively low barriers to entry, and can be created in mere hours. This has contributed to a profusion of mobile games titles. As of the start of 2016, we estimate app stores will offer more than 800,000 mobile games; this compares to 17,000 titles available for all games consoles and PCs. Every day a further 500 mobile games titles are launched on a single platform¹⁶³.

The immense number of mobile game titles renders many new titles invisible without substantial marketing spending. The largest mobile games publishers are spending hundreds of millions of dollars on marketing annually, with a large amount of this spent on broadcast TV¹⁶⁴.

If mobile games publishers cannot afford a TV campaign, they could use outcome-based advertising, such as app-install ads. They would only need to pay for actual downloads of a game or could even choose to pay for apps that are both downloaded and opened several times. However this can be expensive. In the US market, cost per install is \$1-2, and can spike far higher on a seasonal basis, such as just after December when there is a surge of new device activations¹⁶⁵. An install accompanied by usage (known as 'Cost per Loyal User') can incur a charge of over \$4 in the US¹⁶⁶.

A mobile games publisher might pay several dollars per download with no resulting revenue, even if the user benefits from hundreds of hours of free usage.

This potential outcome highlights a third fundamental difference: the business model. The predominant sales model for mobile games is freemium, whereby games are downloaded for free and additional content, be this in the form of extra lives, additional characters or special powers, is charged for. Players can (and do) spend tens of hours playing without having to pay a cent. Market data suggests that this is typically less than three percent of all players¹⁶⁷.

Indeed in 2016, it is highly probable that the vast majority of freemium games downloaded to mobile devices will generate no revenue. According to Deloitte member firm research, only about a tenth of smartphone owners make in-app purchases (including games) in a given month¹⁶⁸. Those that spend on mobile games are lucrative, but they are elusive. About one in 650 mobile games players (known in the industry as "whales") generate about half of all in-app spend in free-to-play games¹⁶⁹. By contrast, almost all players of console or PC-based games have paid for the game.

One reason why console and PC game players may be more willing to pay is because of the utility derived, with many hours of play frequently taking place. By contrast mobile games are often played to occupy pauses during the day when the user might otherwise be doing little or nothing, such as while commuting on public transport, or waiting for a friend to arrive, or during an advertising break. A mobile game can fill a few minutes and is often a fall-back, whereas someone playing a console or PC-based game may block out hours to do so.

158. For the number of games available, we have used a number of publicly available sources including <http://store.steampowered.com/>, <http://www.vgchartz.com/> and the most recent information available for mobile games from the two main app stores. If a title is available across a number of platforms, the total number of games will include all the platforms that title is available on. For PC games, we have considered only games that are downloadable onto the PC. It is being played on, not games which are accessible via browsers.

159. Deloitte Global expects that approximately 50 percent of the total base of smartphones and tablets in use will be used to play games on a frequent basis. According to Deloitte member firms' Global Mobile Consumer Survey conducted in 20 countries, 46 percent of respondents use their phones to play games at least once a week. Fieldwork took place between May and July 2015. For more details, see Deloitte member firms' Global Mobile Consumer Survey: <http://www.deloitte.com/gms>

160. Special E3 Gaming Report: The Growth of Mobile & Online Multiplayer, App Annie, 11 June 2015: <http://blog.appannie.com/appannie-icd-gaming-report-2015-h1-e3-edition/> [requires download]

161. For details on video game development cycles and costs, see Video game development, Wikipedia, as accessed on 10 December 2015: https://en.wikipedia.org/wiki/Video_game_development

162. For examples of marketing costs, see How Much Does It Cost To Make A Big Video Game?, Kotaku, 15 January 2014: <http://kotaku.com/how-much-does-it-cost-to-make-a-big-video-game-1501413649>

163. 500 iOS games per day: Flooded mobile market is tricky for indie devs, VentureBeat, 3 March 2015: <http://venturebeat.com/2015/03/03/500-ios-games-per-day-flooded-mobile-market-is-tricky-for-indie-devs/>

164. Why King and Supercell spent nearly \$500M marketing their games – and how you can spend way less, VentureBeat, 27 April 2015: <http://venturebeat.com/2015/04/27/why-king-and-supercell-spent-nearly-500m-marketing-their-games-and-how-you-can-spend-way-less/>

165. CPI, Fiksu Indexes for August 2015, Fiksu: <https://www.fiksu.com/resources/fiksu-indexes/2015/august>

166. Cost per Loyal User Index, Fiksu Indexes for August 2015, Fiksu: <https://www.fiksu.com/resources/fiksu-indexes/2015/august>

167. For example, conversion for Zynga in 2014 was under two percent; in 2011 it was reported at 2.5 percent. See Credit Suisse Raises Zynga Inc (ZNGA) Target Price; Maintains Underperform Rating, Bidness Etc., 10 November 2014: <http://www.bidnesetc.com/28870-credit-suisse-raises-zynga-inc-zynga-target-price-maintains-underperform-rating/>; Veteran Wall Street analyst rates Zynga an "outperform", VentureBeat, 19 December 2015: <http://venturebeat.com/2015/12/19/veteran-wall-street-analyst-rates-zynga-an-outperform/>; For King, conversion in 2014 was 2.3 percent, see Candy Crush Saga players spent \$865m on the game in 2014 alone, *The Guardian*, 13 February 2015: <http://www.theguardian.com/technology/2015/feb/13/candy-crush-saga-players-865m-2014>

168. According to Deloitte member firms' Global Mobile Consumer Survey conducted in 20 countries, 10 percent of respondents have made an app/game-related purchase in the last month. Fieldwork took place between May and July 2015. For more details, see Global Mobile Consumer Survey: <http://www.deloitte.com/gms>

169. Only 0.15 percent of mobile gamers account for 50 percent of all in-game revenue (exclusive), VentureBeat, 26 February 2015: <http://venturebeat.com/2015/02/26/only-0-15-of-mobile-gamers-account-for-50-percent-of-all-in-game-revenue-exclusive/>

170. If you're not in the top 100, you'll barely be able to make a living in the iOS ecosystem, *gamesindustry.biz*, 10 July 2015: <http://www.gamesindustry.biz/articles/2015-07-10-ios-games-revenues-show-top-20-dominate-newzoo>

The marketing investment required for mobile games publishers is likely to keep the market stratified in 2016. Deloitte Global expects about 80 percent of mobile games revenue in the top 1,000 titles to be earned by the top 20 publishers in each region: that leaves a fifth of the remaining revenue to be shared among many tens of thousands of developers¹⁷⁰. We would also expect sizeable rewards to be maintained for the number one game; the best grossing game could generate five times that of the number five game, and 10 times that of the number 10 game¹⁷¹.

We would expect only a few hundred mobile games companies to gross over \$1 million in 2016¹⁷²; this would be sufficient to run a studio with 5-10 developers. One survey of 8,000 developers found that 17 percent generated no revenue; 18 percent made less than \$100 a month, and half made less than \$1,000 per month¹⁷³.

A further difference between mobile games and both console and PC games has been longevity. Movie franchises can be criticized for offering up a mere three sequels to a blockbuster; nine console and PC franchises have launched over 10 editions, of which three (*Madden NFL*, *FIFA* and *Mario Brothers*) have had over 20 editions. One 17-year old title, *Counter-Strike*, has on average hundreds of thousands of concurrent users of its latest iteration: *Counter-Strike: Global Offensive*¹⁷⁴. A major benefit of successful sequels is a lowered marketing cost; the historical inability to launch mobile game sequels further adds to the marketing cost.

Some media properties can diversify across multiple platforms, such as books or plays being turned into movies or TV shows. Console and PC game hits should, arguably, transfer easily to mobile. Yet very few mobile games hits (under 10 percent) were originally console or PC hits.

We predict that in subsequent years mobile games revenues will continue to grow, propelled by both a rising base of mobile devices, and a marked increase in device specification, particularly for smartphones. Better processors and sharper screens will likely enable more sophisticated game play and more complex graphics over time, although game play on a five – or ten-inch screen will be different than on a 15 – or 50-inch screen. Faster connectivity will enable quicker downloads as well as online play.

We would expect games play to remain a principal usage of mobile devices. However, while consumers are likely to continue to enjoy playing mobile games, life may become increasingly arduous for mobile games publishers, potentially leading to some major players exiting the market in 2016 or 2017.

Given these data, we further predict that the rise of mobile games, in terms of revenues, will not ‘eat’ console and PC games revenues in the medium term: the three platforms will co-exist, with each serving largely distinct needs, underpinned by different business dynamics.

171. As of 10 December 2015, the number one game for the Apple iPhone device in the US generated \$1,470,543 in in-app revenue, while the games ranked number five and number ten generated \$293,973 and \$143,406 respectively. For more information, see Top Grossing iPhone Games, Think Gaming, as accessed on 10 December 2015: <https://thinkgaming.com/app-sales-data/>; iPhone, iTunes, App Store, Apple Pay, Apple TV, Safari are trademarks of Apple Inc., registered in the U.S. and other countries. Deloitte Global's TMT Predictions 2016 is an independent publication and has not been authorized, sponsored, or otherwise approved by Apple Inc..

172. If you're not in the top 100, you'll barely be able to make a living in the iOS ecosystem, gameindustry.biz, 10 July 2015: <http://www.gameindustry.biz/articles/2015-07-10-ios-game-revenues-show-top-20-dominate-newzoo>

173. Developer Economics Q1 2015: State of the Developer Nation, VisionMobile, as accessed on 10 December: <http://www.visionmobile.com/product/developer-economics-q1-2015-state-developer-nation/>

174. For more information, see How Counter-Strike: Global Offensive is still dominating Steam, gameindustry.biz, 16 October 2015: <http://www.gameindustry.biz/articles/2015-10-15-how-counter-strike-global-offensive-is-still-dominating-steam>

175. For some background on the financial performance of Monument Valley, see Monument Valley Team Reveals The Cost And Reward Of Making A Hit iOS Game, TechCrunch, 15 January 2015: <http://techcrunch.com/2015/01/15/monument-valley-team-reveals-the-cost-and-reward-of-making-a-hit-ios-game/>

Bottom Line

The mobile games industry as a whole should thrive in 2016, but the outlook for individual mobile games developers is likely to be far more varied. When touchscreen based games first became available for smartphones and tablets, it was relatively easy for an individual or small company to create a game that would then become a major hit.

However success has its consequences, one of which has been to encourage a deluge of developers, and the result has been an increasingly challenging outlook for fledgling mobile games publishers.

The mobile games sector now has the same core challenges as most mainstream media: creating compelling content and making people aware of it.

This may leave three options for small mobile games developers (aside from keeping their day job). A first option would be to hope for a serendipitous hit, such as blessed recent hits such as *Crossy Road*, *Flappy Bird* or *Monument Valley*¹⁷⁵. A second is to align with a major publisher which has the resources to market a new game heavily – but those downloading the game on a freemium basis may not pay for add-ons with sufficient regularity. A third option may simply be to focus on the console or PC market: while the addressable base may be far smaller, gamers in this category have long been accustomed to paying for content.

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