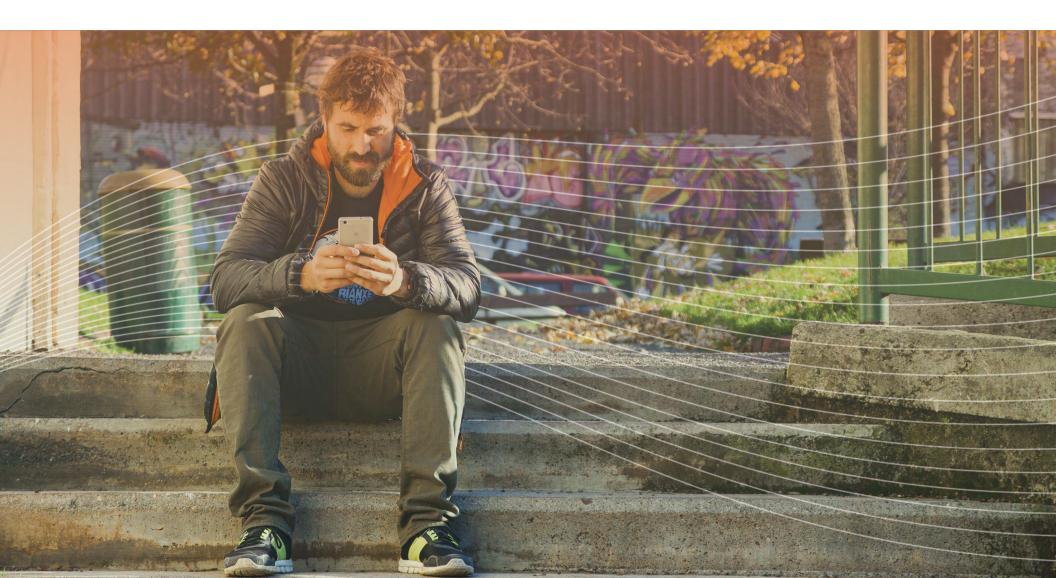


MONETIZATION REPORT 2016

Lifting the lid on player spend patterns in mobile



INTRODUCTION

Welcome to the Swrve Monetization Report, featuring data from February 2016.

This is the latest installment in an ongoing series of reports that reveal all about how players engage, and more specifically spend, in mobile games.

As in previous reports, this is exactly the same research, following exactly the same methodology - which is detailed to the right. We wanted to answer the obvious questions: *how many players spend, how much do they spend, and exactly how many mobile games players deliver the majority of revenue?*

In 2016, the freemium model remains a popular and successful approach to mobile game monetization. It relies on in-game purchases, and on that basis, every freemium developer should have a clear understanding of the metrics that matter in this business. This report aims to keep that understanding up to date.

Swrve is the world's leading mobile marketing automation platform and we provide a marketing engine for over 200 freemium games. With access of tens of millions of players, we have aggregated data from across our system that enables us to lift the lid on user behavior after install to see what works and where the money is made.

Enjoy!

Brief Notes On Methodology

- The report is restricted to freemium games and examines only revenue delivered via in-app purchases.
- Using Swrve's Fraud Filter technology only 'genuine' revenue events are reported.
- The report is restricted to a single month of data (February 2016), providing a snapshot of how mobile gamers monetize. It is not intended to show lifetime values.
- In total, tens of millions of users and their associated monetization events have been analyzed and aggregated to produce this data.



HOW MANY PAY... AND HOW MUCH?

THE SWRVE MONETIZATION REPORT

Way back in January 2014, we found that only **1.5%** of players active in the month made an in-app purchase at all within that same month. When we ran the same analysis this time around, we saw some slight improvement, with **1.9%** of players making a purchase within the month.

That means that excluding any revenue from advertising (which does not fall under the scope of this report), *the vast majority of players deliver no revenue*, again confirming that greater care should be taken in user acquisition to ensure, as much as possible, that onboarded users fit the subset of 'spenders'. Why spend money on users who will never generate revenue?

The good news, perhaps, is that free-to-play game publishers are getting smarter around broadening the net of paying players.

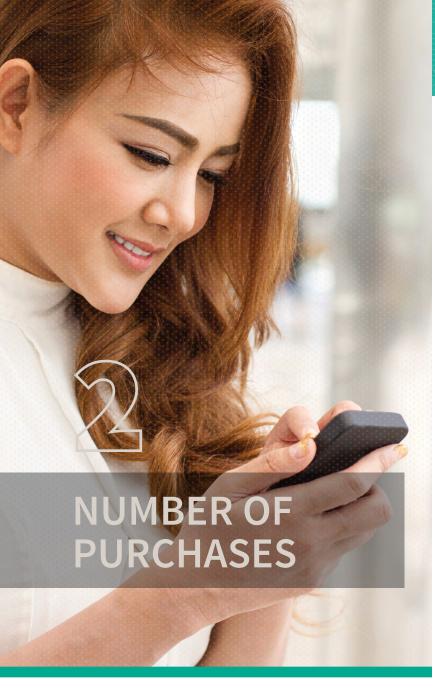
1.9% of players purchased in February 2016

If we look at how MUCH is spent per month (going forward all averages and percentiles relate solely to paying players, unless stated otherwise), we see a monthly mean average total spend (within each game surveyed) of **\$24.66**. This number is up from the from **\$22** we saw two years ago, likely reflecting the increased sophistication of the mobile marketing efforts in this area.

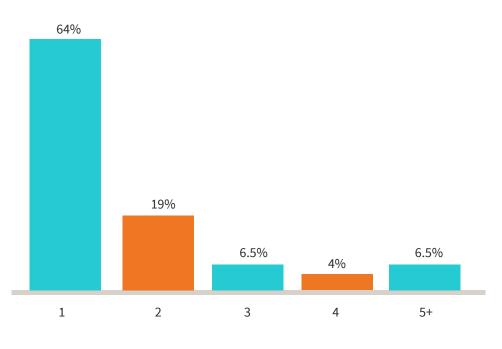
In turn, that total comprises an average number of purchases per month of **1.8** at an average value of **\$13.82** (again an increase on prior trends). There's no doubt that players are spending more in games, or at least spending more within the games where they do spend.

Let's take a more detailed look at these numbers.





The chart below indicates the percentage of paying players making the relevent number of purchases from 1 to 5 purchases or more.

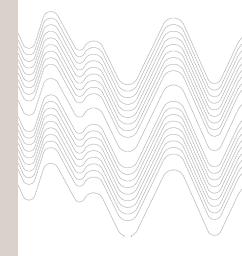


Number of Purchases in the month

A full **64%** of payers (up from **49%** in our original study) only make a single purchase in the month. Remember that this relates only to the month of February, not the lifetime figure; there's no reason that these same players won't go on to make more purchases, or that they haven't already have in the past.

On the other extreme, over **7%** of paying players make five or more purchases, a number that is down from **13%** in our original analysis. There appears to be a definite trend towards a lower volume of higher ticket purchases. Whether this derives from consumers 'learning' how to spend in games or developers encouraging this spending pattern is up for debate!

"64% of all payers make only a single purchase per calendar month"

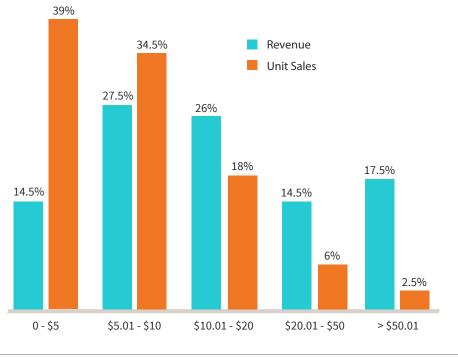


VALUE OF PURCHASES:

MORE HIGH VALUE SKUs THAN EVER

We saw above that the average value of an in-app purchase is **\$13.82.** How that figure breaks down sheds interesting light on the relative contributions of different purchase types—or value levels—to the bottom line of a freemium game business. And when comparing these numbers from previous reports, some differences are clear.

The chart below shows in-app purchases in value buckets (in other words, groups based on how much the individual purchase was in dollars) and plots both the % of purchases that fall into that bucket, as well as the total % of revenue accrued from that bucket.



% OF REVENUE / UNIT SALES CONTRIBUTED BY STOCK KEEPING UNIT BUCKETS

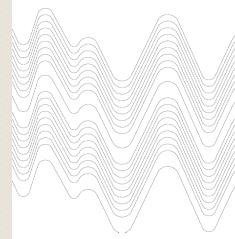
Most notably, we see that while purchases between \$0 and \$5 represent over **39%** of all purchases (not surprising), they contribute just **14.5%** of revenue (a huge decrease from the **27%** of revenue purchases at this level contributed in the original report).

What is really interesting, however, is that high value purchases (those over \$50), unsurprisingly account for a mere **2.5%** of the total number, but almost **18%** of total revenue. This is up from the 11% we found in the original report.

The continued strong performance of 'mid-tier' SKU values, with those between \$10.01 and \$20 contributing **18%** of all purchases and **26%** of revenue, also indicates an ongoing willingness among gamers to buy in-app purchases at higher price points.

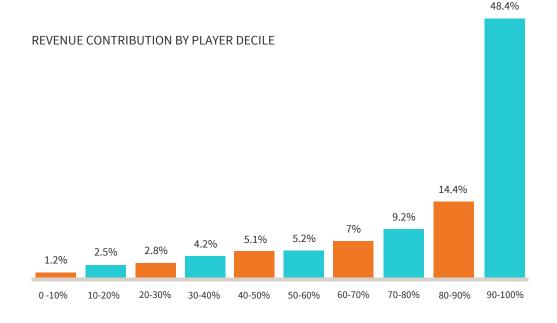
All in, there's a clear indication that SKUs from across the mix each make a healthy contribution to revenue. It appears that game developers are learning that a range of SKUs, for a range of player types, is the way to go.

"In-App purchase of over \$50 contribute nearly 18% of all revenues"



Way back when, we stunned the gaming world with the revelation that over **50%** of all revenues within a month came from just 10% of those making purchases in the same time period (and by extension, less than **0.2%** of all players). A year ago, that number was close to **60%**. Has anything changed since?

Below we chart every paying player in the month of February 2016 in deciles by total spend. In plain English, that means we show the bottom **10%** (i.e. the **10%** of users who spent the least in total) on the left, and move in 10% steps to the top 10% on the right. We then show for each of those deciles the % of revenue derived from that group, the average number of purchases each member of the group made and the average purchase price at which they were made.



HOW PAYERS

BREAK DOWN

Apparently things have got a little 'better'. Sure, a full **48%** of revenue still derives from the top 10% of payers, but that's a little down on previous trends. To add context to that number, if we express that group as a % of total players, they still represent a mere **0.19%** of that group. In other words, over 48% of all revenues come from a mere 0.19% of all players!

The implications of those numbers continue to bear extended consideration, but we don't have space here to go into them in depth. However, we would, as usual, suggest any freemium business to ask themselves the following three questions:

- Have we identified these customers within our own business?
- Are we investing appropriate time and resources on retaining this specific group of players?
- Do we understand where they come from and have we amended our acquisition strategy accordingly?

Conversely, of course, a full 60% of all payers (those actually making a purchase in the month) contribute a little under 20% of all revenues. This represents progress - but it remains the case that "all paying players are not created equal."

"The top 10% of payers (by revenue) contribute over 48% of total revenues in the month"





NEW PLAYER SPENDING PATTERNS

THE SWRVE MONETIZATION REPORT

A full **25.3%** of our sample size were 'new' in the month (i.e. playing the game for the first time in the calendar month of February). That number may seem high, but in fact has trended down significantly over time (from as high as 50%) - presumably as mobile games become more established, and individual mobile games extend their lifespan.

As we wished to give these payers sufficient time to develop a spend profile, they are taken from the first 16 days of the month only, allowing us to compare the first 14 days activity for all.

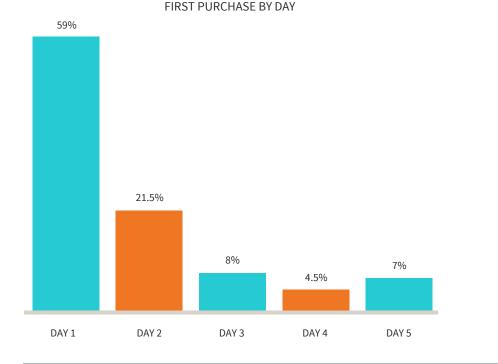
"Average time to first purchase is 14 hours"

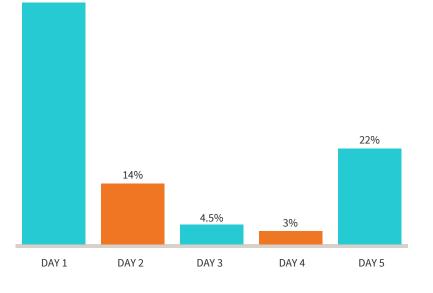
Shown below is time to first purchase, expressed as a % of all users making a purchase within 14 days who made their first purchase on the stated day. From this chart it's clear that a significant amount of spend activity takes place relatively soon after the game is first played, with over 59% of purchasers making that purchase in the first day after install.

That is further borne out by the fact that the average time to first purchase is a mere 14 hours - a number that has been decreasing ever since we began producing these reports. Players are making purchases faster than ever before. Further detail of the revenue curve for new users can be seen below, in which we chart the total revenue (for the first 14 days of life) that accrues on day one, day two, and so on to a final bucket of "beyond day 5". That information reveals that a full **55%** of all revenue is accrued in the FIRST day of life, with only **22%** coming after day 5.

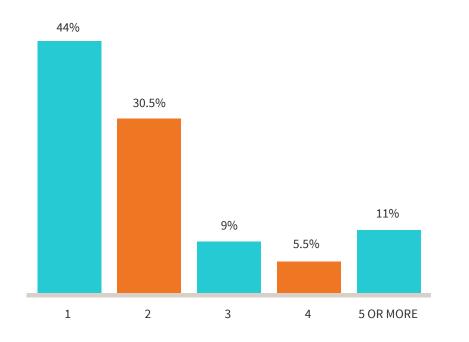
REVENUE ACCRUED BY DAY (FIRST 14 DAYS OF TITLE)

55.5%





Lastly, we looked at how many new payers went on to make second or further purchases within the 14 day period. As can be seen below, **56%** of payers go on to make a repeat purchase, and nearly **11%** of new players accrue 5 or more purchases in their first 14 days. They are probably on their way to membership of our **top 10%...**



NUMBER OF PURCHASES (FIRST 14 DAYS OF LIFE)

THE SWRVE MONETIZATION REPORT





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Understanding how to engage users quickly and maximize revenue is a core competence of Swrve's, and recognized by our partners - including Sony, The Guardian, Condé Nast, Warner Brothers and Microsoft. Swrve customers have delivered more than one billion mobile messages, and every single day the Swrve platform processes over six billion events.

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