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INTRODUCTION

Since publishing our first monetization report in 2014, Swrve has continued to work with the world’s largest games companies, processing billions of events daily, from millions of players. 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. Again this year we’ve analyzed a three-month period of data (July-September 2018) to provide insights on what matters to games companies.

We wanted to answer the obvious questions:

How many players spend?
How much do they spend?
What goes on after install, where is the money made?
And what has changed since the last Swrve Monetization Report?
I. HIGHLIGHTS FROM THE REPORT

- **$23.05**: Average monthly spend per user
- **72%**: 72% of paying players only make 1 purchase
- **1.6%**: Only 1.6% make an in-app purchase

64.5% of total revenue comes from top 10% of paying players
(Bottom 50% of purchase make up only 3.16% of revenue)

- **5%**: 5% of paying players make 5 or more purchases
- **47.7%**: 47.7% of purchases take place on the first day of install
- **61%**: 61% purchases over $50.99 account for 61% of total revenue
- **25%**: 25% of purchases take place in the first 40 minutes after install

Revenue from mobile games in 2018 was an estimated $140 billion. With so much at stake, it’s of vital importance to know exactly how that money is being spent by players. That’s why Swrve has analyzed 3 months of data from millions of players of freemium games to answer the questions you need to know. Here are a few of the highlights:
II: THE FREEMIUM MODEL

The freemium model has changed the face of gaming over the past decade. In fact, revenue from mobile games now exceeds that from consoles and PCs combined - an estimated $140 billion in 2018.

With so much at stake - games companies either live or die by how well they monetize their freemium games - it is essential to know how players interact with this relatively still new model.

HOW MANY PAY, AND HOW MUCH?

Research shows that the majority of freemium games players do not make in-app purchases. From July to September 2018, only 1.6% of active players surveyed made an in-app purchase. This trend is down from the 2016 Monetization Report, where only 1.9% of players made a purchase.

That means that the vast majority of players still deliver no revenue from in-app purchases, and confirms that great care should be taken when acquiring users to ensure they are in the subset of 'spenders'. After all, why spend money on players who will never generate revenue?
If we look at how much is spent per month*, we see a monthly mean average total spend of $23.02. This is in effect a typical, or target MRPPU (Monthly Revenue Per Paying User). Again, this is down from the 2016 report, which came in at $24.66.

In turn, that total comprises of an average number of purchases per month of $1.54, of an average purchase value of $19.47. The rest of this report will take the form of a detailed breakdown of these numbers.

### Analysis of eight games over three months

July, August and September, chosen to avoid common seasonal sale times

- **1.584 %** of players purchased
- **Average spend per month (mean): $23.016**
- **Average spend per month (median): $4.99**
- **Average number of purchases per month: 1.54**
- **Average purchase value (mean): $19.465**
III. AFTER INSTALL

NUMBER OF PURCHASES

A full 72% of payers only make a single purchase. This figure is significantly higher than the past few years (49% in 2014 and 64% in 2016).

This chart indicates the percentage of payers making the absolute number of purchases from 1 to 5 or more during the three months analyzed.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Number of Purchasers</th>
<th>Number of Items</th>
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</thead>
<tbody>
<tr>
<td>72.0%</td>
<td>14,6988</td>
<td>1</td>
</tr>
<tr>
<td>14.0%</td>
<td>2,9650</td>
<td>2</td>
</tr>
<tr>
<td>6.0%</td>
<td>1,2120</td>
<td>3</td>
</tr>
<tr>
<td>3.0%</td>
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<tr>
<td>5.0%</td>
<td>1,0265</td>
<td>5</td>
</tr>
</tbody>
</table>

At the other extreme, 5% of paying players make 5 or more purchases. A repeated theme over the years is the dependence of the freemium games model on a small percentage of paying players (themselves only 1.5% of the total player base). As this number only seems to be getting smaller it’s now more important than ever to nurture relationships with your VIPs.
VALUE OF PURCHASES

There have been major changes since our last report.

We saw above that the average value of an in-app purchase is $19.47. How that figure breaks down sheds some very interesting light on the relative contributions of different purchase types, or value levels, to the bottom line of a freemium game business.

This chart shows in-app purchases in value buckets (as individual purchases) and plots both the % of purchases that fall into that bucket, and the total % of revenue accrued from that bucket.

First, we see that while purchases between $0.01 and $5.99 still represent a majority (57%) in the number of all purchases, they contribute to just 5% of total revenues.

Where it really gets interesting is high value purchases (those over $50.99), which account for 8% of the total number of purchases, deliver a staggering 61% of total revenue. In 2016 this price-point accounted for just 17.5% of revenue, and in 2014 a mere 9.1%. This is a huge change, and demonstrates how much better games have got at monetizing VIPs, by offering high value, and obviously desirable in-app purchases. Over previous reports we have urged developers to broaden their range of SKUs, and it certainly seems to be paying off handsomely.
IV. FROM PLAYER TO PAYER

In our first Monetization report, we stunned the gaming world with the revelation that over 50% of all revenues came from just 10% of those players making purchases (and by extension, less than 0.2% of all players). In 2016, that number was down slightly to 48%. How have the numbers changed since?

Below we chart every paying player across the 3 months in deciles by total spend. In plain English, that means we show the bottom 10% - ie 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 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 they made them at.

What stands out is the phenomenal spike in the far right decile. 64.5% of total revenue by player spend now comes from this top spending 10% of paying players. They also purchase more frequently, with 2.88 purchases on average over the 3 month period, with an average price a staggering $146.03!

Some simple math shows that a full 50% of paying players makes up a paltry 3.166% of total revenue. Again, it really hammers home the importance of cultivating long-lasting and loyal relationships with your highest spending players.

As a result, any freemium business should ask themselves the following three questions, if they have not already done so:

- **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?**
NEW PLAYER SPENDING PATTERNS

There is more change around new player patterns as well. Only 18.73% of our player base were ‘new’ in the month - i.e. playing the game for the first time over the course of the three months. This was down from the 2016 report (25.3%) and the 2014 report (53%). One reason for this is as mobile games have become more established, and retention efforts ramp up, individual games extend their lifespans.*

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 25% of purchases happening in the first 40 minutes after installing, and 47.7% happening within the first day.

However, the average time to first purchase has extended from 14 hours in 2016 to a considerable 2 days and 21 hours, showing that many players are taking longer to decide to purchase. This demonstrates the importance of optimizing onboarding, and implementing a solid day 1+ retention strategy.

*The new player spend is from any people in the three month period who had their first 14 days in that period.
Next we looked at how many new payers went on to make a second purchase within the 14 day period, and how long the typical delay between the 1st and 2nd purchase was. Again there is a big change from previous reports. Only 36.5% of payers go on to make a repeat purchase within the 14 days, down from 56% in 2016, and just 11.13% of new players accrue more than 4 purchases. These are the players who are probably on their way to membership of our top 10%.

Interestingly, the typical time lapse between the first and second purchase has got considerably longer, from only 1 Hour 40 Mins in 2014 to 2 days 10 hours in 2019. The chart below shows typical time lapse to second purchase amongst those new players who made at least 2 purchases in the month.
Further detail of the revenue spread 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 67.87% of all revenue is accrued by the fourth day of life, with only 28.27% coming between days 5-14. This differs quite a bit from 2014, where 60.8% was accrued on the first day alone, 81.8% after 4 days, and only 15% between day 5-14.

Ultimately there is almost certainly a long tail in terms of revenue beyond the first 14 days (again, not shown here, and not reported) the consistency in the pattern in terms of revenue share suggests long term value can be predicted with some accuracy after as little as 4 days.

V. 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 three months of data - providing a snapshot of how mobile gamers monetize; it is not intended to show lifetime value
- In total 10s of millions of users, and their associated monetization events, have been analyzed and aggregated to produce this data
- This report excludes any revenue from advertising
Swrve is the marketing and customer engagement platform that helps leading brands confidently scale communications over millions of customers in real time. A Gartner Magic Quadrant for Mobile Marketing Platforms leader, Swrve is currently installed in 3.5 billion apps worldwide and processes 14 billion events daily.