

CUSTOMLYTICS

eBOOKS

Monetization

This information was written by the Customlytics team for inclusion in the
Mobile Developer's Guide To The Galaxy.

For a full copy of the developer's guide, visit the [Customlytics website](#)

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1 Introduction

For developers, mobile has democratized access to billions of users. According to [Sensortower](#), in 2019 more than 83 billion USD were transacted in major app stores of Apple and Google with in-app purchases, subscriptions, and premium apps; up from 71 billion USD in 2018. Just take a look at the [most profitable \(non-gaming\) mobile apps](#) across the App Store and Google Play Store such as Tinder, Netflix or YouTube to notice that users don't mind paying for apps.

There is an incredible opportunity for app developers to reach consumers; and of course there is a huge competition with [over 5 million apps](#) in the leading app stores (Apple's App Store and Google Play). [Over 94%](#) of apps on the main app stores are free and compete for users' attention. Thus, developers need to make sure that their app and their advertising budget help their app stand out from the crowd.

Assuming you are not developing your app as a hobby, you probably want to turn it into a source of revenue. This is where app monetization models come into play. This should be incorporated into your business plan well before the launch of your app.

This chapter will explore dominant app economy monetization models that are somehow dependant on the main app stores:

- In-app purchases: Add payment options into your app.
- Subscription Models: Gain recurring revenue by gating access to content and features.
- Pay per download: Sell your app per download.

Additionally, we will also discuss other monetization options that are less dependant on platforms:

1 Introduction (continued)

- “Freemium” with in-app purchases: The app is free to download but includes premium features that users have to pay to access.
- Mobile advertising: Earn money from advertising.
- Sponsorships: Receive money for each user signing up to your sponsor.
- Data Monetization: Mine your mobile app user data.
- Indirect sales: Physical goods among others.

When you come to planning your own development, determining the monetization business model should be one of the key elements of your early design as it might affect the functional and technical behavior of the app.

2 Considerations for your monetization strategy

Ensuring your mobile app is economically viable requires defining a monetization strategy from day one. Choose an app monetization strategy that will allow you to profit off your development efforts and costs.

2.1 App vertical

Some verticals lend themselves to certain forms of monetization. What problem does your app solve and which service does it provide? If you are offering a content centered service such as a music or video streaming service (think Spotify or Netflix), a subscription model will be profitable. Freemium models on the other hand are lucrative for apps that want a mix of revenue such as ads or in-app purchases (think gaming apps).

2.2 Platform

One of the factors that impacts your revenue is the platform you are developing for. Whether you are developing for iOS or Android (or both) impacts your monetization capabilities due to market penetration and platform popularity. Looking at the two major app stores, Apple is generally the platform that is seeing maximum revenue growth. Basically twice as much as what Google Play Store is making in terms of in-app purchases, subscriptions and premium apps. According to data by [Sensortower](#), the stores saw a combined 37 billion USD in consumer spend in the first half of 2019; users of Apple's App Store spent 25 billion USD and Android users 14 billion USD in the Play Store.

2.3 Competitors

Research what competitors in the same app vertical are doing. How do they monetize; and is their chosen approach working for them? Maybe you find a gap or a niche that you can fill.

2.4 Main revenue stream

As mentioned in the introduction, you need to evaluate whether your app is your main product and revenue stream. Or, whether it is just another channel or vehicle of your actual product. Is your mobile app an extension to your existing PC web shop or physical store? Offer the app for free and earn revenue from your products and services in the real world (and save the 30 percent revenue share from Apple & Google).

2.5 User acquisition

Of course app monetization is not possible if you don't have a significant volume of app installs. You need to have a large amount of MAUs (monthly active users) to earn sustainable revenue. This definitely holds true for the in-app advertising model. This is where user acquisition (UA) strategies step in.

2.6 User experience

Your monetization strategy should complement your app's user experience and fit organically within the app. If you put ads into your app, make sure that this is seamlessly done. You will want to choose a marketing partner/network that supports interactive ads as well as analytics and targeting.

2.7 Value proposition and pricing

In the ASO chapter of the [Mobile Developer's Guide](#) you will learn how to create an app store listing that communicates the value of your app. It will help you convert app searchers into paying users if you clearly communicate your value proposition.

If you are choosing the pay per download model you should offer an attractive price tag. According to [Statista](#), the average price in 2019 for an app on the App Store is 1.01 USD.

3 Monetization - platform dependant

3.1 In-app-purchases (IAP)

In-app purchases (IAP) are a way to charge for specific actions or items within your application, whether physical or virtual in nature. You can offer the basic features of your mobile app for free, but charge for premium content and premium features. For example, virtual currency or additional levels, videos, premium information or removing ads. This monetization approach is used by some of the top grossing apps in gaming, e-commerce or dating apps such as Tinder, Evernote, Candy Crush or Clash Royale.

According to AppsFlyer, the average mobile app user spends 0.50 USD per month on IAP per app. The average monthly in-app spend for gaming apps is 0.32 USD; for shopping apps it is 2.68 USD. But with only 5 percent of users actually spending money on IAP, that doesn't sound like a promising way to earn money with your app. The challenge lies in acquiring an active enough user base where that amount of money turns into a sustainable revenue for your app.

3.1 In-app-purchases (IAP) (continued)

Most app stores offer an in-app purchase option, or you can implement your own payment mechanism. It should also be obvious that you will need to design and develop your application to incorporate the in-app payment method. If your application is implemented across various platforms, you may need to implement a different mechanism for each platform (in addition to each app store, potentially).

As with PPD, we would recommend that you start with the in-app purchasing mechanism offered by an app store, particularly as some of these can leverage operator billing services (such as Google Play) or utilize pre-existing credit card information (such as Apple or Amazon), or with in-app payment offered directly by operators. From a user's perspective, this is the easiest and most convenient way to pay, so developers can expect the highest user acceptance and conversion rates.

3.2 Subscription models

Monetizing apps through subscription is gaining momentum. In-app subscriptions are a subset of Freemium/IAP, essentially letting users download an app for free initially. Users can then access a limited amount of content before being prompted to pay for premium content or features. Subscriptions are lucrative for apps that are content driven such as newspaper-, dating-, music streaming and utility apps. [Spotify's](#) freemium success story is often [quoted](#) as the best example of an app for turning freemium into a billion dollar business with subscriptions.

Subscriptions take IAP to the next level. Instead of paying only once for an upgrade, users make regular payments bringing in steady revenue. By continuing their subscription, users are encouraged to interact with the app. This boost in user retention rates is quite profitable to cover long-term development costs. On the other hand, it means you want to keep user churn low.

The pricing structure of subscription models has become more complex and varied. In fact, they mirror the pricing model of a [SaaS](#) by now. App developers charge users either a monthly or yearly fee for the app and offer multiple subscription options, as well as an option that combines all the services in a premium package.

3.2 Subscription models (continued)

In-app purchases and subscriptions for your mobile app are both managed by Apple (iOS) and Google (Android). In order to set up subscriptions in the app you should implement [Apple's In-App Purchase API](#) or the [Google Play Billing API](#) for Android. Apple is especially pushing for subscriptions by offering incentives for developers.

For the first year of any user's subscription, Apple will get 30% of the App Store purchase. Google is taking a 30 percent cut of developer's revenue as well. In 2016, Apple changed its policy to take only 15% of the marketplace fee once customers subscribe for more than a year. Yet, some brands such as [Netflix](#), [Epic Games](#) or lately [Tinder](#) have decided to bypass the stores, instead directing their users to the web or other platforms in order to avoid fees ([with mixed results](#)).

3.3 Pay per download (PPD)

Pay per download used to be the dominant monetization strategy for a long time. The approach is simple: Sell your mobile application upfront charging per download. Payment can be handled by an app store or mobile operator.

Using PPD can typically be implemented with no special design or coding requirements for your app. For starters we would recommend using the app store billing options as it involves minimal setup costs and minor administrative overhead.

As the mobile economy and monetization strategies have matured over the years, today [only 3](#) percent of non-gaming app revenues are generated through paid app downloads. Aggregated data by [Statista](#) shows that global mobile app revenues through PPD have experienced a slowdown for a number of years by now. Pay per download generated about [29 million US Dollars in 2017](#); compared to IAP accounting for about 37 million USD.

The benefit of the paid-app approach is that developers earn revenue upfront. User retention or lifetime value do not carry such a big weight. Yet, as pointed out in the freemium chapter, the majority of apps these days are available for free. Users find it a standard practice to not pay for an app product that they haven't even tried out yet. The tendency for PPD can hardly be called strong or profitable for app publishers nowadays.

4 Monetization - platform independant

4.1 Freemium

The majority of apps monetize via freemium with the ability to unlock premium features with in-app-purchases (IAP) or through other channels. Think Skype, Spotify or LinkedIn. [Apple introduced in-app purchases in 2009](#) and since then this model has become a tried-and-proven mobile app monetization strategy.

Why has freemium become so dominant? Unlike pay per download (PPD), the freemium model appeals to users' desire to test an app before buying it. It allows you to hook a good deal of first-time users before charging them while trust is built. You have to engage users enough before turning them into buyers who are willing to spend for a more increased experience. Therefore, gaining revenue from freemium depends very much on user engagement.

4.2 In-app advertising

Generating revenue by displaying advertisements in your mobile app has become a viable method for driving conversions. Once you have decided to advertise with ads you have to choose an ad network to monetize your app and add its SDK to your app. Each network offers slightly different approaches specializing in individual ad formats, pricing models, geographic regions and advertiser types.

Most often the ad networks' revenue for your app does not scale at the same rate as your users base does. There will be issues with monetizing all the different geographies or different ad types. You will soon realize that though you are generating revenue from your user base, you are introducing problems around CPM (we will explain this payment model) and keeping the competition with different ad sources you are working with. Thus, instead of working with one ad network SDK, you have to start working with several SDKs as your users continue to scale.

That is a lot of SDKs to manage and may even slow down your app and affect performance. The complexity within your app will be huge.

4.2 In-app advertising (continued)

Ad mediation platforms such as [Adatr](#) or [Mopub](#) can help you optimize ad revenue and solve some of the problems of scaling your ad monetization. As you are working with a mediation platform you have one single mediation SDK that gives multiple different ad networks access to your inventory and then gets them all to compete. Now you only have one simple integration making sure that the highest bidder wins by comparing what CPM all the various ad networks are offering. Working with mediation is the way to go to get the most out of your inventory, optimize your CPM and increase your ad revenue

The app advertising industry keeps evolving and so do ad formats that app developers can choose from:

- **Banner ads (static or animated):** Typically text or images that can be placed at the top/bottom of the screen. These are probably the most familiar ads for users but can be obnoxious.
- **Interstitial ads:** A full screen ad and typically has a „skip screen“ button at the bottom. Commonly used during transitions in the app. They come in a variety of formats, as text, image or app install ads.
- **Expandable ads:** Rich media ad combining banner and interstitial ads. Users can choose if they want to view the ad.
- **Native ads:** Ads that match the look and feel of your app and its content. Hence, the least intrusive ad format that offers users relevant content.
- **Video ads:** Ad format that can be highly engaging and shows key app features. Costly to produce and place, hence you should get the video ad right.
- **Rewarded ads:** An ad that rewards users for watching the ad.
- **Playable ads:** Offers users a taste of gameplay inside the app. Usually, there is a CTA at the end prompting users to download.
- **Offer Wall:** Offerwalls are placed inside an app listing multiple offers that provide users with incentives in exchange for completion of specific actions.

4.2 In-app advertising (continued)

If you are opting for ads, consider the placement in the app. Users are accustomed to ads in their mobile apps but you should nevertheless put emphasis on user experience. Avoid intrusive or irrelevant ads that can damage user retention.

If in-app advertising is your chosen strategy, decide what the objective of your ad campaign is. Usually advertisers decide between branding and performance marketing campaigns. The big difference being that: performance marketing campaigns aim for an actual action or results, e.g. installing an app; versus, growing public knowledge of your app through brand marketing. Both approaches call for different pricing models. Today, the most used mobile advertising pricing models are:

CPM (cost per thousand impressions):

The price an advertiser pays to an app publisher to serve 1.000 impressions of an ad. CPM is beneficial for app publishers and developers since they generate revenue every time an ad is shown. On the flipside, this presents a drawback for advertisers: they are charged regardless of whether anyone clicks their ad. As an advertiser, you want to ask yourself whether you are willing to pay just for impressions, not specific user action goals. If you are running brand awareness campaigns, CPM is the way to go. If you think about it, this is probably the fairest way of doing advertising. Many aspects that will decide whether a user clicks or even downloads the advertised app are well outside of the control of the developer/owner of the ad inventory.

CPC (cost per click)

The price an advertiser pays each time a user actually clicks on an ad. CPC is a pricing model utilized in UA campaigns. The advantage is that advertisers pay nothing for ads that don't generate clicks.

However, as an advertiser you get charged for errant clicks that do not result in a lead or customer action. The drawback for app publishers presents itself in potentially serving ad impressions for free.

4.2 In-app advertising (continued)

CPA (cost per action)

With this pricing model, the advertiser pays for clicks on their ads that lead to an action by a user (purchase, sign up, app download, subscription). This is beneficial for advertiser's UA campaigns since they only pay for specific outcomes.

The drawback and risk for app publisher and developer: Serving ad impressions and generating clicks without actually generating a conversion (meaning they don't get any money).

CPI (cost per install)

The price an advertiser pays whenever the consumer installs the advertised application. Hence, this pricing model is especially used in UA campaigns. Advertisers find this model favorable since they only pay for users that install the app after seeing an ad promoting it. CPI emphasizes app downloads and installs so the advertisers gets what they pay for.

Yet, there are other creative ways of monetizing your app through mobile advertising. Don't constrain yourself and explore other popular approaches to boost your revenue.

4.3 Ad-free sponsorships

The sponsorship approach involves collaborating with brands who grant users rewards upon completing in-app actions. The sponsorship is integrated into the app which means no ads are displayed. When rewards are redeemed, app developers will get part of the revenue.

Take [Apponsor](#) for instance. The user gets your app for free and is prompted to sign-up for a newsletter of your sponsor. In return, the sponsor will pay the developer an amount for each newsletter registration. It kind of works like an affiliate app program.

4.4 Data monetization

As an app developer, you have access to an incredible amount of user data. This is a goldmine for digital and offline businesses alike. It reveals insights about consumers that these businesses can use to analyze their audience or product improvement. Yet, you need a great amount of daily active users (DAU) to employ data monetization at all. So-called data collectors will only get non-personal information such as device type or device version. We recommend this article by [The Tool](#) or [Hackernoon](#) to learn more about data monetization, how to gather it correctly while also being trustworthy to your app users.

4.5 Indirect Sales

Another option is to use your application to drive sales elsewhere. Use your app as a marketing tool to sell goods in the real world. Typical examples are car apps, magazine apps and large brands such as McDonald's and Starbucks. Also, coupon applications like Groupon often use this business model.

5 Final thoughts: What can you earn?

Certain types of apps have made their developers millionaires (or even billionaires); many others are not generating enough revenue to break even with development costs. So one of the most common developer questions is how much money they can make with a mobile app and which monetization model works best. Many apps mix a variety of monetization strategies to create one that suits them best and goes in line with their product. Success usually comes with a degree of experimentation and a lot of perseverance.

Without a doubt, there is big money in apps. In 2020, [statistica](#) forecast apps to make a total global revenue figure of over 188 billion USD; up from 88 billion USD in 2016. Gaming apps dominate the list of top-grossing apps. Developers such as King Digital Entertainment (Candy Crush Saga) generate over [93 million USD](#) in revenue through IAP from their worldwide Android game downloads alone.

5 Final thoughts: What can you learn? (continued)

There are certainly other app verticals with impressive earnings. App publisher IAC reached [over 260 billion USD](#) across Apple's App Store and Google Play Store in 2019 with dating app [Tinder](#)'s subscription model.

So, how much can developers earn? The answer to this question depends on a lot of different factors such as size of development studio, location, coding experience and mobile platform choice (iOS or Android). According to the developer salary guide by [Business of Apps](#), an average annual salary of a mobile app developer in the US is 107,000 USD, 47,000 USD in Germany and significantly lower in India with 4,100 USD. Keep in mind that the local economy plays a significant part in the earnings though.

Last but not least, app developers want to consider monetization beyond mobile devices for future endeavours. There is an emerging market for additional smart devices and platforms. Think smart TVs, smart watches and video game consoles to watch in future growth and monetization opportunities.

6 Resources

The Ultimate Guide To Mobile In-App Purchases Optimization

<https://instabug.com/blog/mobile-in-app-purchases/>

7 Annotations

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