Section 3

Growth – Marketing Your App Globally

In this chapter we cover the major ways you can attract and grow your app user base and when to use a particular tactic.

Most every app developer's goal is to get their app into the hands of as many people as possible. But to go from tens of downloads to thousands or even millions, you need a marketing plan. Thinking about the life cycle of an app can be an effective way to create a plan because you can match certain tactics to the difference phases of the app. As an example, we've outlined six different phases of an app's lifecycle and tactics relevant to those stages.

The life cycle of an app

1 **Concepting**
You haven't made anything yet, but you've got an idea for an app and can start to build interest in what you're doing and establish an early following.

2 **Testing**
The alpha version of your app is in the hands of a few trusted testers. You're ironing out the kinks and adapting your app to early user feedback. At this point, focus on getting the basics right.

3 **Launching**
When you're ready to launch, develop a strong app store listing and invest in distribution channels.

4 **Accelerating**
The stage where your app gains traction and acquires many more users, i.e. the tipping point. Be prepared to take advantage of new marketing opportunities.

5 **Leveling**
Your app has achieved a steady number of users but has stopped growing. Paid ad campaigns can give you a boost.

6 **Declining**
Your app starts to lose users. It's time to focus on the next idea.

① Concepting marketing strategy

At this stage, you're mapping out ideas for your app, you haven't written a single line of code, or even have a name for yet, so how can you market it? In the concept stage you're marketing yourself and your ability, not necessarily your app.

Crowdfunding

If your app needs funding then a crowdfunding platform (see Chapter 2) is a good way to validate your idea and source fund. When you post your app on a crowdfunding site, you're in effect posting your first ad. You're announcing to the world what it is you want to build and why it's a good idea, but really you're promoting yourself. View websites like Appbackr for crowdfunding examples. You'll want to research and understand how much funding you'll need, how to best reward your backers, and how to keep them updated on your progress.

Building a website and social network presence

Even without a working app, you can still begin to establish your brand through a simple website and build your community on social networks. Whether your crowdfunding is successful or not, you've still exposed your idea to interested people who may become testers or paying users later on. So set up a way for these people to follow your story, such as a blog, email newsletter, or social media, and begin to build a community.

(2) Testing marketing strategy

After lots of hard work, you've gotten the alpha version of your app in the hands of a few trusted testers. As you squash bugs and adjust the app to testers' feedback, you want to focus on getting the marketing basics right.

Name your app

A name is a critical part of your marketing strategy. If you choose a name that confuses users or doesn't resonate with them, your app will likely flounder. Check out Dan Rose's article, ['Top 10 Tips for Naming Your App'](#), on the Creative Bloq website for some excellent advice.

Marvin Paul, co-founder of [Out of Milk](#) and now a software engineer at Google, knew that a good name was important to their overall strategy. "For me, the name is very important. I feel lucky that we came up with the name 'Out of Milk.' Before I start any project I need a name for it. So for this app I posted a message to my friends asking for name suggestions for a shopping list app, and people gave me some ideas. The final name didn't come about through that, but it was a good process and helped us eliminate some ideas. Eventually, we chose a well-known expression."

Design your app icon

Your app icon may be small, but it does a lot. It's the key visual element on your app store listing page that draws users in; it captures what your app is about in a single image; and it serves as the button that will get tapped countless times each day by users to open up your app.

A good designer can help you visualize what you want to communicate with your icon. Or, you can do it yourself, which is what Szymon Klimaszewski did for his app [Blood Pressure](#). His logo captures the purpose of the app in a simple and recognizable design. "Having a good app icon is very important. Fortunately I'm familiar with Maya, a 3D software design package, Photoshop and Gimp because of my interest in graphics. That gave me a knowledge base to create a logo myself. I had the idea of a heart icon, and I wanted to connect this idea with blood pressure, and the idea of an ECG graph. So the icon was designed and became my logo."

Google AdMob research shows that 54% of smartphone users in China think an attractive app icon and logo is an important part of the overall app experience, and users in other markets agree.

To help app developers understand how users view and value app experiences, we've conducted a global survey and listed answers to some of the key questions below.

? Question		📊 Market statistics

How important are the following to your overall app experience?

1 – Attractive icon and logo
2 – Ease of navigating app
3 – Instructions for using app
4 – App design & aesthetic
5 – Ability to personalize the app
6 – Ability to contact customer support
7 – Social network log-in
8 – Integration with social media

U.S. and U.K. app users are particularly concerned about an app's ease of use

Tell friends and family

During this phase you can establish beta testing groups among friends and family. Consider them to be your inner circle of testers, but keep them engaged and empowered by listening to their feedback. Create simple surveys using tools like Google Forms to collect their thoughts in a structured way. You may want to cast a wider net and solicit testers via social networks.

③ Launching marketing strategy

The day has come - you're ready to launch your app and make it available for download by all users.

It's time to create an excellent app store listing: getting this page right will be critical to your success because it's your global shop window. Here are some pointers:

Invest in high-quality screenshots

Many users view screenshots before downloading an app to see what they're getting. Make sure the screenshots in your listing:

- Give the user a good overview of the major app screens or 'tell the story' of your app
- Are accurate and up to date. PicsArt has [great visuals](#) on their listings page.

Invest in a video

As users browse through an app store deciding which app to download, it's useful to have as much information about the app as possible. Videos are an excellent way to show a user the app's functionality, especially for paid apps.

💬 INTERVIEW   **Sylvain Gauchet** Is a co-founder of Apptamin, which specializes in creating videos for apps.

> Video is one part of the marketing puzzle but it's an important one because next to trying an app, it's the best way for a user to know what an app is about and explain its value.

> Different apps require different types of video. For instance, videos for games should show the gameplay. For other apps it's good to explain the use case and show how the user will be using it in situ. Ideally videos should be between 30 to 60 seconds long.

> Videos can have multiple uses. Once you have a video you can put it on the Play Store of course, but you can also add it to your website. You can also create a shorter version for use in mobile video ads.

> Also, a video is a good way to engage journalists and bloggers. These people receive many press releases for apps but won't be able to download each app to try. Including a video link gives them a taste of the app and encourages them to download it so they can review it in full.

> Having a good video won't fix a bad app, so make sure your product is good.

Build word of mouth and choose good keywords

Family, friends or colleague's recommendations, app store and search engines are where many US users discover new apps, according to Google/Ipsos Media CT research.

52% of app users surveyed discover new apps through family, friends or colleagues

40% through browsing the app store

27% through search engines.[27]

? Question

Which are the most common ways you find new apps?

1 – Browsing the app store
2 – Friend/Family recommendation
3 – Search bar in app store
4 – App store's top app lists
5 – Web reviewer's top app lists
6 – Notice app in social networks
7 – Promotion of apps within other apps
8 – Advertisements

Market statistics

App store browsing is the top discovery method in all markets except China, where users rely most on search engines to find new apps.

So writing a good title and description in your listing, and choosing relevant keywords, can be essential to help drive discovery of your app.

There are many poorly written app listing pages, which can confuse users or leave them with a bad impression of the quality of your app, limiting downloads.

Keep in mind these tips when writing your app store listing:

- **Write for your audience.** For example, if your app is an educational tool for kids (such as Raz-Kids), call out the benefits to the parents.
- **Don't make it hard for users to understand what the app does.** State its purpose up front and include 2-3 of the app's killer features.
- **Highlight great reviews and testimonials, from either users or the press if you have them.** Vyclone does a good job of this.
- **Be clear about its limitations.** The description for the Blood Pressure app, for instance, makes it clear that users still need a blood pressure monitor to use the app.

Use house ads and cross promotion

If you already have a portfolio of apps with an existing user base, why not give your app a boost at launch by using house ads? These ad units help you cross-promote your new app to users of your other established apps at not additional cost.

When it comes to set-up, manually placing these ads in your apps can be time consuming, so many developers often choose an ad network to handle the ad serving. AdMob makes house ads easy - offering a free house ad service and a simple process for creating house ad campaigns. You can refine the targeting settings of the campaign to reach the right audience (such as showing ads to users in certain countries, or even targeting ads based on demographic criteria). When you choose an ad network, look for those options as they'll help you achieve better results.

With Google AdMob, you can combine house ads with mediation (see Chapter 4) to take advantage of every impression in your app. This is useful when the ad networks in your mediation stack can't fill an ad request. Instead of an empty ad slot, you can show ads from your house ad campaign to promote your other apps. This can help you attain new users at no cost.

App development company Fingersoft had a lot of success promoting their Hill Climb Racing game with house ads. It wasn't their first app: other apps, created in 2011 and 2012, such as 'Cartoon Camera,' and 'Night Vision Camera' already had users, so it made sense to cross-promote and leverage that user base.[28]

Try peer-to-peer distribution

There are two major ways that peer-to-peer distribution can help you acquire new users. One method is when you partner with other developers to advertise your app in their apps. Developers you seek out for this purpose may have a good-sized portfolio of apps, or maybe have a handful of really popular ones, but the point is they have a much larger volume of users than you that you can leverage drive downloads. So why not seek out friendly developers open to doing a deal with you? In many cases the distributing developer will want a share of your app's revenue.

Second, a more formal version is when the larger party publishes the app on behalf of the smaller party. It's a chance for you to piggyback on others' success and has been proven to work well. For example, Rovio recently launched their Stars program, designed to help app developers with dis-

> *Paid user acquisition is an important pillar for any consumer business looking to win in mobile. Depending on your strategy and goals, using in-app campaigns to drive the first wave of downloads can be a good place to start.*

— **Zubair Jandali**
  Head of App Developer Ad Sales, Google

tribution (Rovio has a user base numbering more than 100 million across their games). Kalle Kaivola, Senior Vice President of Product & Publishing at Rovio Entertainment, explains some of the benefits: "We have a lot to offer to the developers in terms of helping them put the finishing touches to the project. Under Rovio Stars we do a bit more than a traditional publisher does in helping with the game project, things such as lending our expertise in QA and marketing."[29]

Leverage social media and blogs

If you maintain a blog or are active across several social media channels, then time your launch announcements in a coordinated way to maximize the impact. And if you start using social networks, be sure to post regular updates; it's the only way you'll maintain a following.

Granted, not everyone has time to manage a social network. So another tactic is to let your users do your social marketing for you. If you have a great app then users will tell their friends about it. You can enable these conversations by adding social features to your app. We like how social sharing has been integrated into the [Hill Climb Racing game](#). After you crash your car, the app generates a screenshot which you can post to your social networks along with your score.

We have a lot to offer to the developers in terms of helping them put the finishing touches to the project. Under Rovio Stars we do a bit more than a traditional publisher does in helping with the game project, things such as lending our expertise in QA and marketing.

— **Kalle Kaivola**
  Senior Vice President of
  Product & Publishing at Rovio
  Entertainment

(4) Accelerating marketing strategy

The stage where your app gains traction and acquires many more users, i.e. the tipping point, is likely to be one of the most critical. If you reach this point you may find many new marketing opportunities coming your way.

Featuring on the app stores

To many developers this is the holy grail of free app marketing; a prominent position on an app store's front page, or at least on a category page, can significantly boost your number of users in a short space of time. For example, the messenger app Cubie was featured on the Google Play Store's frontpage for nine days, and according to their business development manager, James Hill, it had a huge effect. "Before we got on Google Play, our total downloads across iOS and Android were averaging between 15,000 to 20,000 per day. After being featured on Google Play, we were getting over 50,000 downloads per day on Android alone."[30]

So what's the catch? You can't choose to be featured on Google Play, the Play Store's editorial team picks you. However, you can improve your chances by building a great app which adheres to Android design best practices and also has a great rating from users. To learn more about featuring, read this overview on the Android Developer website.

Respond to user feedback and fix bugs quickly

While fixing bugs may not sound like a classic marketing tactic, it can directly impact your rating and hence downloads. During this phase of acceleration your users will surprise you by discovering new bugs, and frustrated users can be unforgiving in their reviews and give your app a low rating. But users can be equally vocal and delighted when you fix the problem.

License your app to a publishing house

As your app takes off you may suddenly have more work than you bargained for. You might have to contend with support issues, as well as thinking about new ways to improve your app. That may leave you little time to build an app for another platform, so licensing your app to a publishing house might be a good option. In this scenario you negotiate a deal with a publisher, whereby they pay you a licensing fee for a period of time to build, publish and promote your app. They earn a share of the profits from your app until the agreement expires.

(5) Leveling marketing strategy

You've achieved a steady number of users but growth has plateaued.

Run paid in-app ad campaigns

You can pay to advertise your app inside other apps, known as in-app advertising. It can be a very effective way to grow your user base because you're addressing a highly engaged audience. In other words, app users who are exposed to ads in apps are often willing to try new apps, and gratification is instant (courtesy of the app download). AdMob research shows that more than a quarter of smartphone users in the US and UK feel comfortable with in-app ads which promote games or apps similar to ones they already use.[31]

? Question	**ılıl** Market statistics
Which of the following types of ads are you most comfortable with? 1 – Ads that promote apps/games that are similar to the ones you use 2 – Ads targeted to you based on your online or mobile activities 3 – Ads targeted to you based on your age, gender, or other personal 4 – Ads that are not targeted to you personally 5 – Ads that promote apps/games from the same company as the ones you use	U.S. & U.K. smartphone users prefer to see ads promoting apps/games similar to those already being used.

Costs for paid ad campaigns can be easier to manage once you have a reasonably-sized user base, and you understand more about how users are engaging with your app. One of the first mistakes an app developer makes when running a paid ad campaign is paying too much or too little for users. Once you have users, and you're collecting data on how much money you're making from your app, you can calculate your average revenue per user (ARPU) or even daily average revenue per user (DARPU). This gives you a good guide for what each customer is worth to you and can help you with your ads bidding strategy. Here's an example scenario:

> **If you have a portfolio of apps with existing users already, why not give your app a boost at launch by using house ads?**
>
> - Each of your users earns you $10.
> - The average cost per click of your campaign is $0.10 and your number of clicks is 5000, so the cost of your campaign is $500.
> - Your campaign has driven 100 installs.
> - Your cost per install (the cost of your campaign / number of installs) is $5.

You know that each conversion costs you $5, but each install is likely to earn you $10.

Remember, downloads don't always equal customers and revenue. You'll want to track the effectiveness of each marketing channel where your ads are placed, since some may provide better users (more loyal ones, or higher spenders) than others.

How to optimize paid ad campaigns

- **Experiment with multiple ads.** Most ad networks give you the option of running multiple ads for free. So when you create your campaign don't settle for one text ad; try two or three - each with a different message - and let the one that generates the most downloads be the one you use most frequently. With AdMob it's easy to edit your ads on the fly to keep your ad copy competitive and current.
- **Know the value of different channels.** If you chose to run ads across different networks, you're likely to see a range of results with some performing better than others. Actively manage each channel so you know which gives you the best return.
- **Track conversions.** Install conversion tracking into your app so you know which ads are driving installs. You can learn more about this topic with [this article](#) from the AdMob Help Center and can track conversions across Android and iOS.
- **Use re-marketing to boost engagement and revenue.** Let's say you've got 50,000 users of your gaming app. Half are 7-day active users who spend a lot in your app, the rest are 30-day active users who don't spend much at all. If you could get the 30-day actives to play the game more often they'd become more engrossed in the narrative and would increase their spending. But how do you bring users back to your app? Remarketing lets you target users of your app with ad messages as they engage with other apps. This prompts them to return to your app, and you can incentivize their return with special offers or promotions.

⑥ Declining marketing strategy

In this stage, your users are engaging with the app less frequently and the number of downloads is dropping. AdMob research shows the number one reason for someone to stop using an app is simply because they lose interest.

? Question	**▮▮▮** Market statistics
Thinking about the apps you have tried but no longer use, which of the following explain why you stopped using them?	Losing interest is the #1 reason smartphone app users in all markets discontinue app use.
1 – Lost interest	
2 – No longer needed app	
3 – Found better app	
4 – Too many ads	
5 – App did not fulfill purpose well	
6 – Difficult to use	
7 – App had technical problems	
8 – Lack of fresh content	
9 – Finished/Completed game	
10 – Didn't have time for use	
11 – App became too costly	
12 – Friends stopped using app	

Going Global

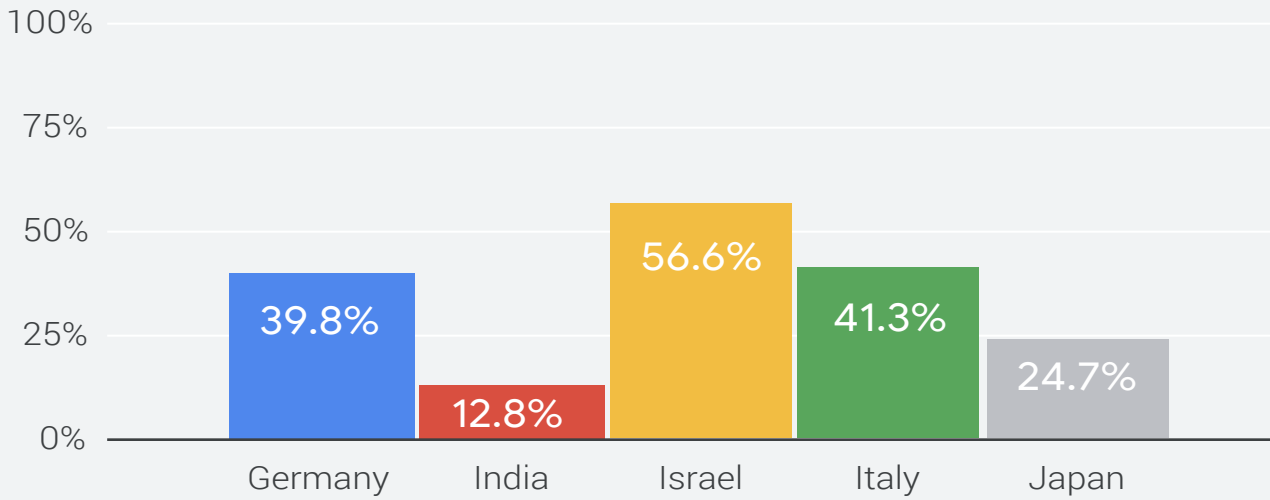## Going global: unlocking the secrets of app localization

Localizing your app can unlock lucrative opportunities to reach more users: here we explain why you should consider it and how. Insights from AdMob's survey of app consumers in major markets help you make informed decisions about building, monetizing, and promoting your app.

Why localize? App stores allow you to connect with potential customers around the world, and if can adjust your app to their local language and user behaviors, it can open up significant revenue opportunities.
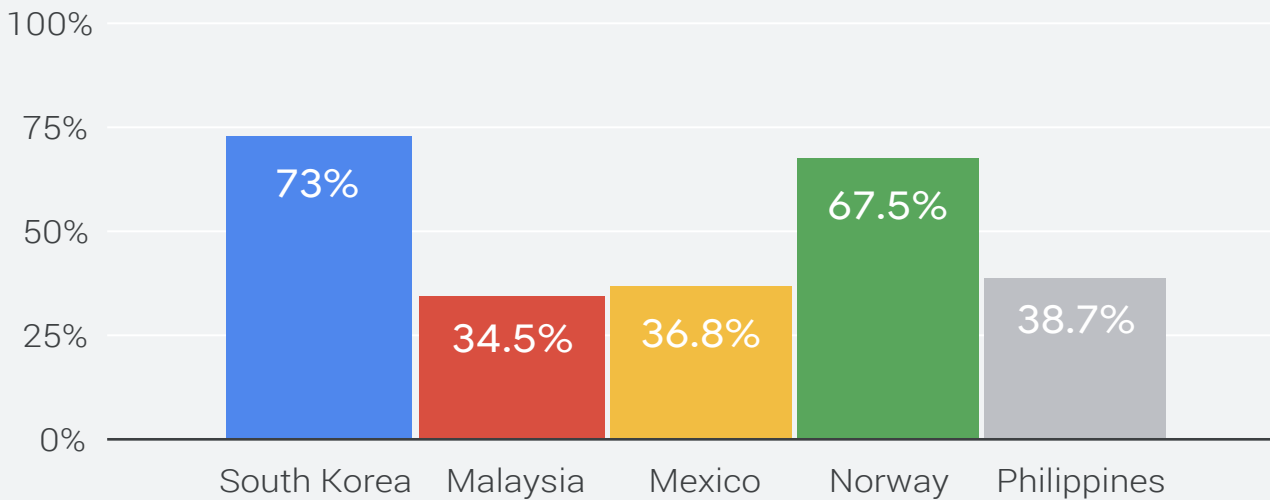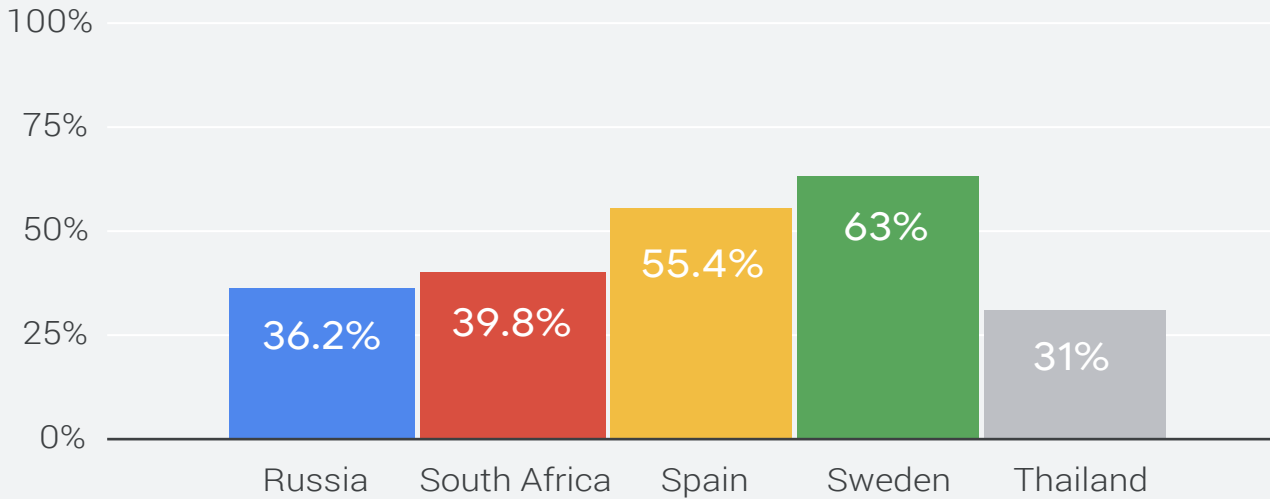
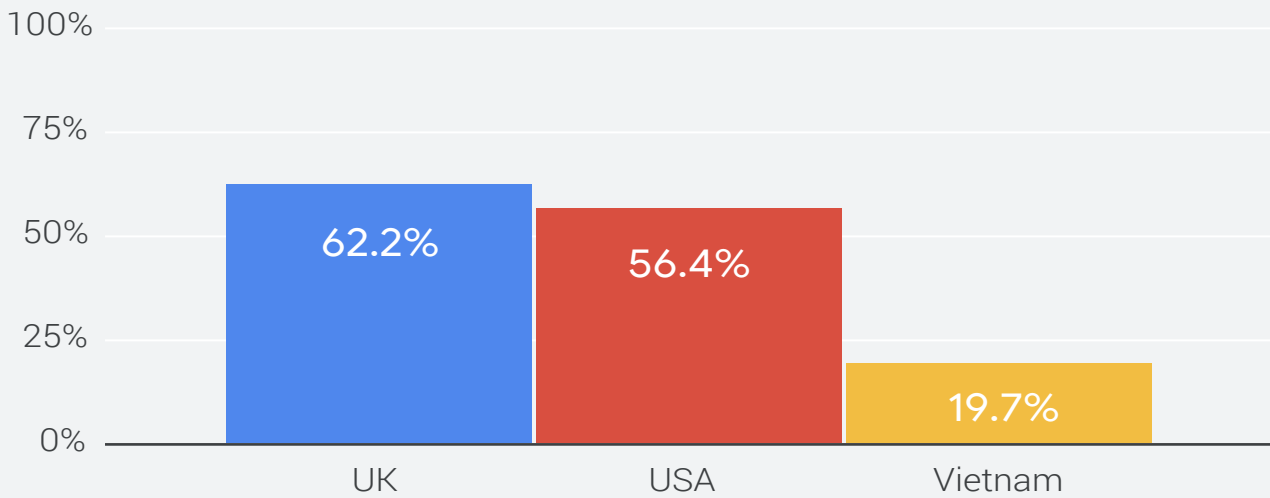### Market statistics

Smartphone Penetration, by Country

Country	Penetration
Australia	64.4%
Brazil	26.3%
Canada	56.4%
China	42.3%
France	42.3%

Smartphone Penetration, by Country

Country	Penetration
Germany	39.8%
India	12.8%
Israel	56.6%
Italy	41.3%
Japan	24.7%

Smartphone Penetration, by Country

Country	Penetration
South Korea	73%
Malaysia	34.5%
Mexico	36.8%
Norway	67.5%
Philippines	38.7%

Smartphone Penetration, by Country

Country	Penetration
Russia	36.2%
South Africa	39.8%
Spain	55.4%
Sweden	63%
Thailand	31%

Smartphone Penetration, by Country

Country	Penetration
UK	62.2%
USA	56.4%
Vietnam	19.7%

Localizing your app means more than adapting the user-interface language. it's about being culturally sensitive, too. App developer, RV App Studios, created the popular [Zombie Ragdoll](#) game in 20 languages. They immediately began seeing significant usage in countries where they hadn't seen much traction from the non-localized version. Part of their success comes not only from localizing text within a game, but also localizing game features to specific countries and cultures. Vivek Dave, founder of RV App Studios, emphasizes this point: "Users want a personalized experience, and by offering a localized game with translation of text and graphic assets, we believe users will connect at a much deeper level with the game."[33]

In an effort to better understand consumer app behavior, perceptions, and preferences, AdMob conducted a new survey across five major markets: China, South Korea, Japan, the United States, and the United Kingdom. The study provides you with data and analysis to help you optimize your app design, marketing, and monetization of your app. Key insights from cross-country comparisons can help you understand adjustments you could make for consumers in different markets.

Though users in all surveyed markets have experienced poor localization, app users in Asian markets are much more likely to feel the pain. Survey shows that 53% of Chinese respondents and over a third of Japanese and South Korean users have felt the app they were using was poorly adapted to their needs. Approximately 25-30% of users discontinued app usage as a result. Even for an app that was good quality, over 10% of users in China and Japan responded that they would stop using the app due to poor localization. If your goal is to distribute to a worldwide audience, we strongly encourage you to localize.
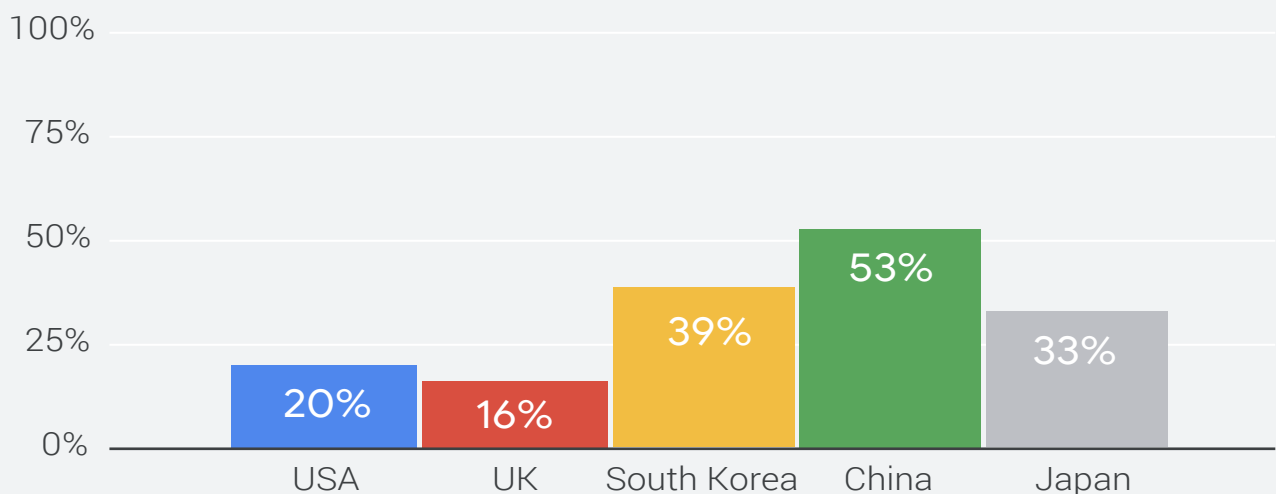

? ## Question

Have you ever used an app that you felt was designed for users of another country or a different language?

📊 ## Market statistics

% Experience poor app localization

	USA	UK	South Korea	China	Japan
	20%	16%	39%	53%	33%

? Question

Which of the following statements best describes your experience with the app you felt was designed for users of another country or different language?

1 – I felt the app was good quality and I continued to use the app

2 – I felt the app was good quality but I stopped using the app because it was not designed for users like me

3 – I felt the app was good quality but I stopped using the app for other reasons

4 – I felt the app was poor quality but I continued to use the app

5 – I felt the app was poor quality and I stopped using the app because it was not designed for users like me

6 – I felt the app was poor quality and I stopped using the app for other reasons

Market statistics

Over a third of those in all markets who have used a poorly localized app stopped using the app due to the poor localization.

> *We build apps for global markets. We have some apps which are Russian brands. High quality titles will only yield return if they are popular globally. We have an idea about what kind of experience users will like, and we have to be culturally sensitive about politics and religion. And we have to be careful of producing art or other things which are only understandable in one market.*

> — **Alexey Sazonov**
> Sales and Marketing Director,
> Herocraft

Tools to help localizing

- **Google Translate.** For simple words or phrases, Google Translate is a quick and free option. It's ideal for apps that contain a small amount of text and covers many languages.
- [Google App Translation Service](#). Purchase professional translations through Google Play's Developer Console. This new service has a list of pre-selected vendors who've been vetted by Google to provide high-quality translation services at competitive prices.

Founder Pieter Olivier of [G4A Indian Rummy](#) says, "When we heard that the App Translation Service was available in the Developer Console, we jumped at the opportunity. We've now been using the App Translation Service for several months and found that the cost per translation is much lower than with local companies and the process is much easier." Pieter saw a 300% increase in user engagement after localizing apps in specific countries where the game was popular.

Find the App Translation Service in the Google Play Developer Console. You can start a new translation or manage an existing translation here.

- **ICanLocalize**. Toni Fingerroos, founder and CEO of Fingersoft, uses this paid service when translating his games. "Most of our game interface is simple enough that you can understand the controls and gameplay without needing instructions. For things that we do need translations for, we use a service called ICanLocalize."
- **CrowdIn** is a low-cost option, using crowdsourcing to translate app files. When you create a project you can either make it public so anyone can contribute, or it can be private and you invite selected translators. There are more than 100 languages to choose from, and thanks to CrowdIn, Minecraft is almost fully translated into [Klingon](#).

Market Insights

Build better apps with these essential insights into mobile app consumer behavior.

AdMob partnered recently with research company Parks Associates to survey smartphone consumers in the US, UK, China, Japan and South Korea. We had 1000 responses in each market from people who are daily users of mobile apps.

We've divided the survey data by country and key learnings. Each market has five categories for which we've pulled significant statistics from the study and provided recommendations on how to best use these statistics to your advantage.

1. Choosing a monetization model

Localizing your app can unlock lucrative opportunities to reach more users: here we explain why you should consider it and how. Insights from AdMob's survey of app consumers in major markets help you make informed decisions about building, monetizing, and promoting your app.

2. Getting discovered

It's hard to get noticed when you're first starting out. Here are some ideas we've compiled based on our study of how users explore and choose apps.

3. Keeping users happy

What do users look for in a good app? What keeps them engaged and coming back for more? Follow these tips to create the best app experience for your users.

4. Making great games

Find out what qualities and features are most important to gamers in your market, as well as what their in-game purchase habits and trends are.

5. Integrating ads

What drives ad engagement has always been a tricky question to answer. We've compiled some market-specific suggestions of which ad types provide the best ad experience based on user preferences.

China

Choosing a monetization model

	FACT	**RECOMMENDATION**
China is the only market in our survey where the majority of users are willing to pay for apps.	68% of users budget some amount for app purchasing. However, paid apps are also quickly being pirated. The New York Times reports that digital piracy is widespread in China and that alternative app stores often provide unauthorized knockoffs for download.[34]	Experiment with different app monetization models, and don't exclude the paid model. An alternative strategy is to use a freemium model and release new versions of your app frequently to avoid being pirated.
Chinese users are more likely to try freemium apps compared to other monetization models.	46% of users have upgraded from a free to a paid version of an app. In the 30 days prior to the survey, 72% of gaming app spending was on in-app purchases.	Since users are likely to pay for an upgrade of a good free app, be sure that your initial free version is high quality.

Getting discovered

	FACT	**RECOMMENDATION**
The strength of a brand is very important to Chinese users.	80% of respondents in China reported downloading their gaming apps from a major brand or company they knew well before downloading the app.	If you're a new developer, consider teaming up with a well-known publisher who can release the app on your behalf.
Chinese users rely most on search engines to find new apps.	26% of Chinese users use search engines, versus 14% who browse app stores.	Users feel more comfortable searching for brands they're already familiar with and trust as a way to filter through the overabundance of apps and app stores. In addition to working with established publishers, research your local market to find the right stores to reach your app's target audience.

"In practice, if we could cover 10 app stores that would get us access to over 70% of users," says Keiji Takeuchi, Representative Director of Link Kit, creators of the popular Samurai Defender game app. "But China changes rapidly so it's difficult to keep up. Naturally there's a risk associated with doing business without knowing the local situation. That's why we have local partners, who we rely on primarily to provide user support. We don't actually meet with these local partners; everything is done via email. We work to instill high motivation in our partners by setting up a scheme where success benefits both sides."

Keeping users happy

	FACT	RECOMMENDATION
Chinese users rank loss of interest and lack of fresh content as their main reasons for discontinuing app use.	49% of users marked a loss of interest while 41% of users stated stale content as their explanation. It's important to note that app users in China are much more sensitive to lack of fresh content than users in other surveyed markets, such as the US at 19% and Japan at 9%.	Adding fresh content on a regular basis is essential for retaining users.
Nearly half of users think that good quality apps have frequent app updates.	44% of users prefer monthly app updates and 33% prefer weekly updates.	Update your app at least monthly to keep users happy.

Making great games

	FACT	RECOMMENDATION
Gamers in China are much more likely to spend money on buying virtual goods and personalizing characters and avatars.	32% of Chinese gamers have spent money on personalizing characters, while 43% will pay to stock up on virtual points and coins.	When developing games, providing character personalization and virtual gold as in-app purchase option, could be an incremental monetization strategy.
Chinese gamers report they make in-app purchases with much higher frequency than gamers in other markets, but they spend the least on in-game purchases.	36% of Chinese gamers spend money to advance gameplay or unlock features on a weekly basis, three times greater than other markets surveyed.	In your game, have options of in-game purchases with different price points.

Integrating ads

	FACT	RECOMMENDATION
Chinese smartphone users are much more likely than others to engage with in-app ads.	92% of users in these markets will click on ads. In the US this figure is 35%.	You should strive to create the best possible ad experience inside an app; where an ad is placed, how it affects gameplay, and the overall user experience is important.

South Korea

Choosing a monetization model

	FACT	RECOMMENDATION
South Korean users are likely to participate in freemium monetization models.	29% of users have upgraded from a free to a paid version of an app.	Since users are more likely to pay for an upgrade of a good free app, be sure that your initial free version is high quality.
In-app purchases are the top revenue generator for gaming apps.	South Korean users say that 92% of their total gaming app spending is on in-app purchases.	Use an in-app purchase monetization model; even a small number of users making regular in-game purchases can generate a high proportion of your revenue.

Getting discovered

	FACT	RECOMMENDATION
When looking for a new app, the majority of South Korean users spend some time comparing apps before downloading them.	61% spend some time on research, while 15% do substantial research before downloading an app.	Be aware of your app and brand's reputation by maintaining a good app store description and monitoring user reviews.
Cost is the most important factor in choosing an app for South Korean users (according to 67% of users), but reviews and star ratings, plus family and friend recommendations are important too.	54% of users say user reviews and star ratings are 'very important', while 20% of respondents rank family and friend recommendations as their number one method of discovering new apps.	While the cost of an app is an overarching factor in buying apps, it's important to recognize that users rely heavily on recommendations from others when deciding what app to download. Consider building a reminder into your app to ask users to rate it after use.

😊 Keeping users happy

	ℹ FACT	⭐ RECOMMENDATION
South Korean users rank loss of interest as their main reason for discontinuing app use.	60% of users marked a loss of interest as their number one reason for discontinuing app use. 42% no longer needed the app and 41% found a better app to use.	Update your app often to keep users engaged and prevent user turnover.
Ease of navigation and the ability to personalize an app are important factors for users.	In overall app experience, 44% of users marked easy navigation as 'very important,' and 43% said both app instructions and the ability to personalize the app were 'very important'.	Keep apps simple and intuitive, and localize well. If adding extra features, personalization options are a good way to go.
South Korean users prefer a high frequency of app updates for the best experience.	40% of South Korean respondents liked weekly updates for their apps, while 47% preferred monthly.	Users need fresh content to stay engaged and loyal to an app. Test out new translation services with native-language speakers and push newly localized apps out as 'beta' versions for user feedback.

✛ Making great games

	ℹ FACT	⭐ RECOMMENDATION
Similar to China, South Korean users are more likely to spend money on personalizing characters in games.	42% of South Korean gamers have spent money monthly on personalizing characters.	Consider offering character personalization as a feature in the South Korean market to boost your revenue.
Gaming apps are consumers' top priority upon buying a new handset in all markets except China.	In the US, UK, and South Korea, more than 60% of respondents from each market said they downloaded games within a week after getting their smartphone, and it was the top priority. Users in China said finance apps were the most important to download first.	Developers should consider aggressively marketing to new phone owners.

Integrating ads

	ⓘ FACT	★ RECOMMENDATION
South Korean smartphone users are very likely to engage with in-app ads.	68% of South Korean users have clicked on ads.	You should strive to create the best possible ad experience inside an app. Where an ad is placed and how it affects gameplay and user experience is important.
South Korean users prefer full screen video and in-app ads to be displayed when an app opens.	For nearly all types of apps surveyed (shopping, entertainment, gaming, etc.), nearly 50% of users prefer to see full screen ads when they open their app.	If you decide to use full screen ads, display them at the point a user opens the app.

Japan

Choosing a monetization model

	FACT	RECOMMENDATION
The majority of Japanese users are not willing to pay for apps.	56% of surveyed Japanese users reported that they only download free apps.	Try using freemium or in-app monetization models.
The option of downloading a free trial of an app is an influential factor in deciding between several apps of the same type.	33% of Japanese users prefer to download apps that have a free trial version.	Try using a freemium model to encourage users to download your app.

Getting discovered

	FACT	RECOMMENDATION
Over two-thirds of Japanese users conduct background research before downloading an app.	14% or Japanese users do substantial research on apps before downloading, and 58% spend at least a little time comparing apps before downloading.	Capitalize on app users' research habits. In addition to current search, browse, and app curation features, consider adding premium app review content by outside experts or revealing to shoppers which of their friends use or have reviewed particular apps.
In Japan, user reviews and ratings, free app trials, and app descriptions in app stores are important factors when deciding between apps.	Japanese users ranked these three factors as 'very important.' 40% of users rely on reviews and ratings, 33% on free trials of the app, and 31% on app descriptions in the app store.	Be sure that your app store presence is strong. Provide informative app store descriptions and make it easy for users to leave reviews and ratings.

☺ Keeping users happy

	ⓘ FACT	★ RECOMMENDATION
Japanese users report the worst experience with app technical support.	91% of users are not willing to download another app from the same developer after contacting customer support and receiving poor service.	Be aware that the care and attention you provide to users facing difficulties with your app has a big impact on your retention rate.
While cost is the most influential factor in app selection, Japanese users also highly value user reviews and free app trials.	60% of users say cost is an influential factor, and 40% rely on reviews and star ratings to ultimately select between several apps of the same type.	Build a feature into your app that reminds users to review it, and be sure to monitor and respond to reviews when they come in. Localize your app store listing and device screenshots since app store browsing is the top discovery method for most markets.

✦ Making great games

	ⓘ FACT	★ RECOMMENDATION
Japanese gamers are least likely to purchase in-game features.	63% of respondents report they have never spent money to unlock features or advance gameplay.	When developing games for the Japan market, consider other monetization methods, such as ads.
However, those gamers who do make in-game purchases at least monthly, spend more than gamers in other markets on those purchases.	In a 30-day span, Japanese gamers reported spending $24.06 on smartphone in-game purchases (and $40.27 on tablet in-game purchases), in comparison with US gamers who spent $10.07 and Chinese gamers who spent $7.81.	Cater for gamers in Japan who are willing to spend more for in-game purchases.
Gamers in Japan are much more likely to spend money on personalizing characters and avatars.	38% of Japanese gamers have spent money on personalizing characters, monthly.	When developing games, providing this as an in-app purchase option could be an incremental monetization strategy.
Gaming is the most popular app type when smartphone users in all markets have 30 minutes of spare time.	In Japan, 40% of users said they would play games over other types of apps given this amount of spare time.	Users are engaging deeply with mobile app content and this challenges the notion that users only want to play games on their phones for a short amount of time. When developing games, foster engagement by creating multiple levels and storylines.

Integrating ads

	ℹ FACT	⭐ RECOMMENDATION
Japanese app users are more likely to prefer banner ads shown on the screen (top or bottom) than in-between app activities.	62% of users prefer banner ads at the top or bottom of screen during main app activity rather than between activities. Specifically, 32% prefer the top of the screen and 30% prefer bottom of the screen.	Use banner ads as your primary add format in the Japanese market.
Search ads and website display ads are most effective at driving app downloads in Japan.	22% of users downloaded an app after seeing it as the result of an online search. 20% downloaded apps after seeing them displayed on a website.	Prioritize ad spend for search ads, website display ads, and ads placed within similar apps.

Google AdMob

United States

Choosing a monetization model

	ⓘ FACT	**★ RECOMMENDATION**
Cost is the most influential factor in app selection in the US.	76% of users marked cost as a 'very important' factor in deciding between several apps of the same type.	US users will decide against downloading even a good app if they feel the cost is too high. Don't rely only on a paid monetization model to build your business.
The majority of US smartphone users only download free apps.	54% of respondents said that they only download free apps, and only 7% of users "commonly" spend on apps that cost $6.99 or more. Over a third of US smartphone gamers and non-gamers have paid to upgrade an app, either for a game whose free trial has ended, or for an app's free to paid version.	Use a freemium monetization model in the US market to make the most out of your monetization strategy.

Getting discovered

	ⓘ FACT	**★ RECOMMENDATION**
Users are most likely to download an app in the US after seeing an ad for it in another app or on a social network.	24% of US users have downloaded apps after seeing ads in social networks and within other apps.	Prioritize ad spending on ads within similar apps and leverage social media where appropriate.
US users rely on recommendations, app stores and search engines to find new apps.	According to Google/Ipsos Media CT research, 52% of US app users surveyed discover new apps through family, friends, or colleagues, 40% through browsing the app store, and 27% through search engines.	Make sure to manage your app's online presence, including user reviews on app stores pages, websites, and social media. Make it easy for current users to share their experience with friends. Here are some tips on getting discovered on Google Play and SEO best practices.

☺ Keeping users happy

	ℹ FACT	★ RECOMMENDATION
US app users are particularly concerned about an app's ease of use.	72% of US users felt that the ease of navigating an app and opening speed were the two most important factors in overall app experience.	Focus your design efforts on simple navigation and smooth user experience to create a winning app.
Smartphone users, both gamers and non-gamers, expect frequent app updates.	43% of users prefer monthly updates, while 25% would like weekly updates.	Update frequently to avoid stale content and keep users engaged. Take steps to provide solid support for your users. If you're going global, be aware you may need to provide technical support to international users in a variety of languages and time zones.

✚ Making great games

	ℹ FACT	★ RECOMMENDATION
Gaming is the most popular app when smartphone users in all markets have 30 minutes of spare time.	In the US, 37% of users said they would play games given this amount of spare time. The second highest choice came in at only 17% for reading books and magazines.	Lengthy smartphone gameplay is increasing among users and you can accommodate by adding levels and complexity, or by introducing storytelling elements to your games.
Game design & aesthetic, quality of graphics, and limited ads are the most important qualities to US users.	53% of users rated quality of graphics as 'very important,' with game design & aesthetic and limited following at 50% and 49%, respectively.	Graphics, design, and smart ad placement go hand in hand when creating great apps.
US gamers spend the least amount of money, in total, on smartphone gaming apps.	Average spending on gaming apps over a 30-day period was $4.53 for US users, compared to $14.03 for South Korean users. This statistic includes paying to download games, in-game purchases, and gaming subscriptions.	Since US users spend the least on gaming apps, consider emphasizing ads as your monetization model, keeping in mind that smart ad placement is key.

Integrating ads

	FACT	**RECOMMENDATION**
US smartphone users prefer ads for apps or games similar to the ones they use.	27% of US users preferred this type of targeting over ads based on personal information or online and mobile activities.	When setting ad filters for US markets, refine based on this statistic.
US app users are most likely to prefer banner ads between app and game tasks, or activities.	46% of respondents prefer in-app banner ads between activities over ads at the top or bottom of the screen during gameplay.	When choosing placement of ads, keep in mind that US users prefer their ads between activities or levels, which is also the preference in all markets we surveyed.

United Kingdom

Choosing a monetization model

	FACT	**RECOMMENDATION**
Gaming is the most popular entertainment app type among UK smartphone users.	62% of respondents play games at least once a month, more than any other entertainment activity.	In the UK, gaming one of the most potentially lucrative markets to for app developers.
In-game purchases generate the most revenue in total gaming app spending.	94% of UK spending in gaming apps have been on in-app purchases.	Develop games with in-app purchase options such as unlocking new levels and upgrading from free to premium games.

Getting discovered

	FACT	**RECOMMENDATION**
UK smartphone users are most likely to discover new apps by browsing app stores.	35% of users rank browsing an app store as their number one discovery method. Second is Family and friend recommendations at 18%, and specific search queries in the app store search bar is third at 13%.	Be sure to have attractive screenshots, good descriptions, and strong reviews for your app store listing.
When deciding between similar apps, UK users highly value reviews and ratings, and app store descriptions.	When evaluating apps, 50% of UK users consider reviews and rating to be 'very important,' while 45% highly value an app's description in the app store in their app selection process.	Write app store descriptions in a clear, concise, and compelling way. Be sure to monitor and respond to app reviews in a timely fashion to demonstrate you care about users' input. Check reviews often and respond if you can. Engagement with users is key to building a strong and loyal fan base.

😊 Keeping users happy

	ⓘ FACT	**★ RECOMMENDATION**
UK app users are particularly concerned about an app's ease of use.	UK users prioritized quick to open, easy to navigate, and battery saving as their top three characteristics of a good app.	Focus your design efforts on simple navigation and smooth user experience to create a winning app.
Two-thirds of UK users feel that their customer support experiences have been inadequate.	Only 33% of UK respondents felt that their app experience was improved as a result of contacting customer support, and only 33% said that they would be more likely to download another app from the same developer as a result of contacting customer service.	Invest resources into providing fast and reliable channels for customer support to prevent users who are experiencing issues from submitting low ratings and poor app reviews in app stores.

✛ Making great games

	ⓘ FACT	**★ RECOMMENDATION**
Game design & aesthetic, quality of graphics, and limited ads are the most important qualities to UK users.	46% of UK users rated quality of graphics as 'very important,' with game design & aesthetic and limited ads following at 41% and 48%, respectively.	Graphics design and wise ad placement go hand in hand when creating great apps.
UK users engage with multiple types of in-game purchases.	The most popular types of in-game purchases for UK users were unlocking new chapters, upgrading after free trials, buying special bundles of items, and paying to clear difficult levels.	When developing your monetization strategy, be sure to include a few of these in-app purchase models for your game.

Integrating ads

	FACT	RECOMMENDATION
UK smartphone users prefer ads for apps or games similar to the ones they use.	28% of UK users preferred this over ads based on personal information or online and mobile activities.	For higher ad engagement, avoid the use of demographic information and prioritize ad spending for ads placed within similar apps.
Ads within other apps and social networks are effective at driving app downloads.	19% of UK users have downloaded an app after seeing an ad for it within another app, and 18% after seeing an ad while on a social network.	Smart ad placement is key in gaining exposure and downloads. Consider buying ad space within similar apps, advertising on social media, and offering your users the option to display game scores or app reviews in their social network streams.

Italy

Choosing a monetization model

	FACT	**RECOMMENDATION**
Italian smartphone users are more likely to engage with freemium apps than with other monetization models.	36% of the Italian users surveyed (including the non-purchasers) have upgraded from a free version to a paid version of an app, and 57% of the users consider free trial of the app to be "very important" when choosing which app to download.	Since upgrading from a free version to a paid version is most common, make sure your initial free version delivers a high-quality experience.
Italian users are more evenly split between free apps users and potential purchasers.	46% of users have upgraded from a free to a paid version of an app. In the 30 days prior to the survey, 53% of smartphone users surveyed say they only download free apps and 47% would budget some amount to spend on apps. This is similar to UK and Germany.	Apply more than one monetization model to make sure you don't miss out on revenue opportunities

Getting discovered

	FACT	**RECOMMENDATION**
Italian users are more likely to download an app on impulse.	28% of Italian smartphone app users download apps almost immediately without researching or shopping around – the highest rate of app users in the European countries surveyed.	In addition to making a high-quality app and engaging your community of loyal users,, think about how to make it appealing to those impulsive users and then turn them to loyal users.
Italian users value good app descriptions and rely more on preview videos.	51% of Italian smartphone users consider app descriptions in the app store very important for making app selection decisions, and 40% would rely on preview video (highest in all European markets surveyed).	Write clear, concise, and compelling app store descriptions. Consider producing professional video previews for your app. Here are some tips on how to build a good presence on Google Play.

😊 Keeping users happy

	ℹ️ FACT	⭐ RECOMMENDATION
Italian users rank loss of interest and failure to fulfill main purpose as their top reasons for discontinuing app use.	41% of Italian users surveyed said loss of interest has caused them to stop using an app. 39% give up an app because it doesn't fulfill its main purpose well and 33% stop using an app because they find a better alternative.	Update your app often to keep users engaged and regularly benchmark against competitors to confirm your app is still delivering a great experience.
Instructions to use an app are an important factor for Italian users.	48% of user surveyed rate instructions for using the app 'very important'.	A step-by-step series of instructions for first time users could go a long way to retaining your users.
Italian users prefer apps that open quickly, are easy to navigate, and don't drain battery life.	66% of Italian users surveyed marked easy navigation as 'very important' for overall app experience. 63% and 54% think a good quality app should open quickly and does not drain battery, respectively.	Keep apps focused and intuitive. Optimize apps so they open quickly and don't drain the battery excessively. Here are some tips for optimizing battery life.

✥ Making great games

	ℹ️ FACT	⭐ RECOMMENDATION
Graphics quality, limited ads, the ability to save and continue gameplay across devices are the most important features for both smartphone and tablet gamers in Italy.	59% of Italian smartphone users surveyed who play mobile games at least monthly rate 'Quality of graphics' for gaming apps as very important. Italy also has the highest percentage of smartphone gamers (28%) who rate social log-in features as very important, compared to other European markets surveyed.	When creating gaming apps, prioritize graphics and smart ads placement. Keep in mind the multi-screen world that users usually play your games in. Leverage social network platforms to give your users the ability to share among friends their gaming achievements.
In addition to upgrading from free to paid app, paying to unlock new chapters is also popular among Italian mobile gamers.	35% of the Italian users who make in-game purchases at least monthly have spent money to upgrade from free trial to paid version. 30% have paid to unlock new chapters.	Consider creating freemium gaming apps,, and keep offering new content.

Google AdMob

Integrating ads

	ℹ FACT	**★ RECOMMENDATION**
Ads are very effective in driving app downloads. People generally prefer targeted ads.	Ads for apps are particularly effective for gamers. 72% of gamers have downloaded an app after seeing an ad for it, compared with 61% of non-gamers. 81% of Italian smartphone users prefer some type of targeted in-app ads to non-targeted ads.	AdMob serves ads to your app using contextual, placement, or interest-based targeting. You can also apply filters to better suit ads to your users.
Italian users' preference for ad type and position varies across app types, but in general prefer ads that are not interruptive.	For entertainment and gaming apps, more than 45% of Italian users who use those apps at least monthly prefer ads shown only between activities and not in main activity. Full-screen and video ads that show between tasks and levels are the second preferred ad format by mobile gamers, followed by traditional banner ads.	When using full-screen interstitials, be mindful to put user experience first and show ads at the right time to the right users. Here are some tips to get you started on implementing interstitials with AdMob.

Spain

Choosing a monetization model

	FACT	**RECOMMENDATION**
Similar to some other European markets surveyed, in Spain cost is a very important factor in downloading an app.	72% of Spanish users surveyed marked cost as a very important factor in app selection. 23% said they made a purchase to upgrade from free to paid app and 6% have made an in-app purchase.	A high-quality app with a freemium model would be appealing to cost-sensitive users in Spain.
The majority of Spanish users make purchase via either credit card or carrier billing.	43% of Spanish users enter credit card information manually and 42% bill purchases to their mobile phone bills.	Make the in-app payment process as easy as possible and offer carrier billing as an option. Google Play supports Movistar and Orange for Spanish users.

Getting discovered

	FACT	**RECOMMENDATION**
Ads are effective at driving app downloads for Spanish users.	22% of Spanish users reported downloading an app as a result of seeing a search ad. 21% downloaded an app from ads displayed on a website, and 17% from in-app ads.	Put advertising platforms such as Google Ads to work to put your app in front of potential users at the right time. Here are some guidelines to get you started.
Users in Spain spend more time researching before downloading an app.	89% of smartphone app users in Spain surveyed conduct some background research before downloading an app - a higher rate than other European markets we surveyed. 55% of users also consider recommendations from friends or family as a very important factors when deciding to download an app.	Make sure to manage your app's overall online presence, including user reviews on app store pages, websites, and social media. Make it easy for current users' to share their experience with friends. Here are some tips on getting discovered on Google Play.

☺ Keeping users happy

	FACT	RECOMMENDATION
Poor localization remains an issue for Spanish users.	Properly localizing apps is important; of the 37% of Spanish smartphone users surveyed who have experienced a poorly localized app, 41% stopped using the app due to localization issues. That means 15% of Spanish smartphone users discontinuing app use due to poor localization.	If you're entering the Spanish market, make sure your localization is high quality. Be sure to check out Chapter 6: Going Global for more resources and tips.
Spanish smartphone users expect frequent app updates.	Nearly a quarter of Spanish app users surveyed have stopped using an app due to lack of fresh content – a rate higher than any other markets surveyed. About 80% of the users prefer an app to be updated monthly (49%) or weekly (31%).	Provide new content updates regularly to retain users.

✚ Making great games

	FACT	RECOMMENDATION
Game design & aesthetic, quality of graphics, and ability to save and continue gameplay across devices are the most important qualities to Spanish mobile gamers.	49% of Spanish smartphone users who play mobile games at least monthly rated quality of graphics as very important, with game design & aesthetic and the ability to save and continue gameplay across devices following at 48% and 48%, respectively.	When creating a great game, prioritize investing in high quality game design and engines that enable cross-platform development.
Spanish gamers engage with several types of in-game purchases.	Spanish gamers engage with several types of in-game purchases, such as buying virtual coins/goods, unlocking new chapters, upgrading to the paid version, personalizing characters or clearing a difficult level.	When developing your monetization strategy, be sure to include a few of these in-app purchase models for your game depending on your game type and audience.

Integrating ads

	ⓘ FACT	**★ RECOMMENDATION**
The most-preferred ad unit is banner ad, but other ad types also have potential.	More than a quarter of Spanish smartphone users who play games at least monthly prefer to see full-screen interstitial ads between tasks or game levels.	Take advantage of AdMob's country targeting and different ad types to optimize your monetization strategy in Spain.
Ads are effective in driving game downloads for Spanish mobile phone gamers.	72% of gamers surveyed have downloaded an app after seeing an ad for it, compared with a 51% of non-gamers.	Don't miss out on monetization opportunities by leaving out advertising if you're creating a gaming app for Spanish users. Consider selling your inventory to similar games.

Germany

Choosing a monetization model

	ℹ FACT	**★ RECOMMENDATION**
More than half of German smartphone users only download free apps, but a small percentage are willing to pay up to €10 for an app.	Although the majority (53%) of German smartphone users surveyed said they only download free apps, 5% said they are willing to pay up to €10 (2%) or more (3%).	Identify your most valuable users, provide meaningful paid upgrades to them without compromising experience for the rest of the non-paying users. Check out AdMob's latest feature addition – in-app house ads – to make your monetization strategy even smarter.
Carrier billing is common in Germany	50% of German users surveyed who make in-app purchase at least monthly bill purchases to their mobile phone bills, followed by 27% who enter credit card information manually.	Make the most of the marketplace's billing services to provide the carrier billing options. Google Play offers carrier billing in Germany for E-Plus, T-Mobile and O2 subscribers.
Customize your monetization strategy based on app type	According to our survey, unlike US and UK users, German users spend much lower on communication and social apps, whereas they would spend similar amount on gaming apps as US users.	Consider advertising model for communication and social apps, and a hybrid model for games.

Getting discovered

	ℹ FACT	**★ RECOMMENDATION**
German users are less likely to download apps on impulse	85% of users surveyed would do some amount of research before downloading an app. 27% would do substantial background research on the app before downloading it. App descriptions, user reviews, and star ratings are rated by 50% of users as very important factors during app selection.	Spend time monitoring and improving your app's overall online presence, including: user reviews, star ratings, app store presence, app website, and social media. Be responsive to problems reported by users. Here are some tips on managing app presence on Google Play.

🔍 Getting discovered

	ℹ️ FACT	**⭐ RECOMMENDATION**
German users rely more on searching in app stores than other major markets surveyed, but employ less specific search terms.	21% of German users surveyed (highest among US, UK, and France) rate searching in an app store as the most common way to find new apps. 84% say they use generic keywords when conducting a search.	Devote time to making your app descriptions in an app store as good as they can be, and focus on maintaining high user ratings to improve your app's visibility when users search.

😊 Keeping users happy

	ℹ️ FACT	**⭐ RECOMMENDATION**
German users are concerned about an app's ease of navigation.	64% of German users surveyed rate ease of navigating the app as very important to their app experience, followed by instruction for using the app (39%).	Focus on designing efficient, effective navigation, and consider providing a series of step-by-step instructions for first time users. Here's a great training on designing effective navigation.
Loss of need and interest are top reasons German users stop using an app.	45% and 44% of German users report they have stopped using an app because they no longer needed the app or lost interest.	Keep close contact with your users and mind market trends to constantly evaluate your app's value.. Provide fresh content regularly to keep users engaged.
German app users are significantly more likely than those in other markets surveyed to associate paid apps with higher quality.	34% of German users think that being a paid app characterizes a good quality app. This is significantly higher than other markets surveyed (US, UK, and France).	Don't shy away from considering a premium model to be part of the monetization models in your app portfolios targeting the German market.

Making great games

	FACT	RECOMMENDATION
German users are open to in-game purchases that expand their experience.	37% German smartphone users who make in-game purchase monthly have made a purchase to unlock new chapters. 30% have purchased to upgrade after a free trial.	Build engaging, high-quality free game content and communicate to users regularly that there are even more exciting game play experiences to unlock.
Almost a third of German smartphone gamers make in-game purchase at least monthly	8% German smartphone users who play games at least monthly report they purchase daily. 15% purchase weekly, and 6% monthly.	Provide new content or upgrade to your gamers at least monthly to keep them engaged and maximize your monetization.
German gamers favor puzzle & trivia, card & board, and strategy & simulation game.	The top 3 smartphone game types in Germany are puzzle & trivia (52% of smartphone users playing games at least monthly report playing this type of game), card & board (46%) and strategy & simulation (35%).	Consider these three game types if you're strategizing which type of games to build for German users.

Integrating ads

	FACT	RECOMMENDATION
Similar to other surveyed market, German smartphone users prefer ads for apps or games similar to the ones they use.	24% of German smartphone users surveyed prefer ads for similar apps or games to the ones they use over ads based on online and mobile activities. 23% prefer ads targeted based on age, gender, or other personal information.	For user acquisition, target potential users by bidding for inventories in similar apps; for monetization, prioritize selling inventory to similar apps.
In Germany, ads are effective at driving game downloads.	20% of German users surveyed have downloaded an app after seeing a search ad (highest percentage), followed by 16% after seeing an in-app ad. 63% of gamers have downloaded an app after seeing an ad for it, compared with 51% of non-gamers. 29% of German users who play games at least monthly prefer full screen ads between tasks or game levels.	Put interstitials to work to monetize your gaming apps. Here's some best practices on implementing interstitials from AdMob.

Brazil

Choosing a monetization model

	FACT	RECOMMENDATION
Over two-thirds of the smartphone owners surveyed in Brazil are willing to spend some money on apps.	Only 31% of the Brazilian smartphone users surveyed said they only download free apps. 20% would spend up to R$2.99 and 19% up to R$4.99. 13% would spend R$10 or more.	Similar to other fast growing markets such as China, experiment with different app monetization models, and don't exclude the premium model.
For Brazilians, the option to download a free trial of an app is an influential factor in deciding which app to download.	64% of users consider the free trial of the app very important in choosing which app to download between several apps of the same type.	Try using a freemium model to encourage users to download your app. Offer a high-quality, uninterrupted experience before offering users the option to purchase.

Getting discovered

	FACT	RECOMMENDATION
Three out of four smartphone app users in Brazil conduct some background research before downloading an app.	29% or users surveyed do substantial research on apps before downloading, and 45% spend at least a little time comparing apps before downloading.	Spend time monitoring and improving your app's overall online presence, including: user reviews, star ratings, app store presence, online search, and social network. Here are some tips on managing app presence on Google Play.
Like other emerging markets such as China, users in Brazil value brands, app reviews from experts, and preview videos.	41% of users surveyed rate brand as very important, 57% would be influenced by app reviews from experts, and 51% consider preview videos as very important in selecting which app to download.	Consider working with established publishers to leverage their brand power and adding premium app review content by outside experts. Market your app with high-quality, professionally-produced videos.

😊 Keeping users happy

	ℹ FACT	**★ RECOMMENDATION**
A vast majority of smartphone users surveyed in Brazil who value frequent app updates prefer updates at least monthly.	Of the Brazilian users surveyed who think good quality apps should have frequent update, 40% prefer monthly updates and 45% prefer weekly. This is also similar to emerging markets like China.	Update your app regularly to keep Brazilian users engaged.
Nearly two-thirds of smartphone users surveyed in Brazil have experienced a poorly-localized app, the highest of any market surveyed.	64% of users surveyed have used an app that they felt was designed for users of another country or a different language.	As one of the fastest-growing markets, Brazil certainly deserves a higher level of attention when localizing. Be sure to check out Chapter 6: Going Global of the Business Kit, for more best practices and tools for localization.

✛ Making great games

	ℹ FACT	**★ RECOMMENDATION**
Gamers in Brazil spend money for many purposes.	28% of smartphone users surveyed in Brazil who make in-game purchase monthly have spent money to personalize a character, 27% to unlock new content, 26% to stock up on virtual goods/coins, 23% to upgrade from a free to a paid version, 22% to clear a difficult level.	Try having more than one monetization strategy. Depending on your game type, try offering multiple in-app purchase options to enhance the gaming experience and your monetization opportunities.
Brazilian gamers also are willing to spend money more frequently.	16% of smartphone users who play mobile games at least monthly spend money to unlock features or advance gameplay daily, 20% weekly, and 11% monthly. Only 37% said they never spend any money on games. However, the average amount among users who spend money for games at least monthly is around $10, much lower than Japan and comparable to the US.	Price multiple purchase options at a lower level to increase purchases from price-sensitive gamers in Brazil.
Quality of graphics and the ability to play across devices are important to gamers in Brazil	66% and 61% of smartphone Brazilian users surveyed who play mobile games at least monthly rate quality of graphics and the ability to play across device as very important.	When developing games, optimize both for a smartphone's smaller screen and a tablet's larger screen. Consider cross-device capable game engines and build login mechanisms to allow gamers to load progress and continue gameplay across devices.

Integrating ads

	FACT	**RECOMMENDATION**
Again, similar to emerging markets like China, Brazilian users engage with ads more frequently than users in the US and Japan	Of those who notice ads in the last 30 days prior to the survey, 74% of Brazilian users report ad engagement; this rate is much higher than the US and Japan. 58% click on ads some of the time and 16% all of the time.	Don't miss out on monetization opportunities via advertising.
Brazilian users prefer ads on top or between activities.	40% of the smartphone users surveyed prefer ads shown on top of the screen and 35% prefer ads shown between activities. For entertainment and gaming apps, a third of users surveyed prefer full-screen ads that appear between game levels or tasks.	In addition to banner ads, try interstitial units for entertainment and gaming apps. Here are some tips to get you started on implementing interstitials with AdMob.

France

Choosing a monetization model

	FACT	RECOMMENDATION
The majority of French smartphone users only download free apps.	72% of smartphone users surveyed said they only download free apps, the highest percentage among developed markets surveyed, such as the US, UK, and Germany.	When creating apps for the French market, consider an ad-supported model to expand your monetization opportunities.
Carrier billing is the most popular payment method for in-app purchases.	49% of smartphone users who made an in-app purchase at least monthly use carrier billing.	Similar to Germany, leverage the marketplace's billing services to provide the carrier billing options. Google Play offers carrier billing in France for Bouygues, Free, Orange, and SFR subscribers.

Getting discovered

	FACT	RECOMMENDATION
The majority of French smartphone users do research before downloading an app	48% of smartphone users surveyed do substantial research before downloading an app, the highest among all countries surveyed.	Managing your app's online presence is critical in the French market. Capitalize on French users' high reliance on online research. Invest more in monitoring and improving your app's overall online presence, including: user reviews, star ratings, app store presence, online search, and social networks. Here are some tips on managing app presence on Google Play.
Online display ads and search ads can be effective in driving app downloads in France, followed by in-app ads.	The top 3 types of ads driving app downloads are mobile display ads (17% of users have downloaded an app after seeing it), online search ads (16%), and in-app ads (15%).	Consider promoting your apps to the French users via these types of ads.

🔍 Getting discovered

	ℹ FACT	⭐ RECOMMENDATION
After cost, user reviews and star ratings are the most influential factors driving app downloads.	52% of smartphone users surveyed rate user reviews and ratings as very important. 50% rate the app description in the app marketplace as very important.	This is not a surprise as French users research more than any other markets surveyed before downloading an app. Be sure to monitor and respond to reviews when they come in, and provide clear and informative app store descriptions (texts, screenshots, and videos).

😊 Keeping users happy

	ℹ FACT	⭐ RECOMMENDATION
Similar to other markets, French app users are particularly concerned about an app's ease of navigation.	French users prioritized easy navigation, instructions for using the app, and app design as their top three important factors for a smartphone app experience.	Be sure you app's navigation is simple and intuitive. Consider providing step-by-step instructions for first time users. Here's a great training on designing effective navigation.
Users in France are more likely to experience localization issues.	32% of French smartphone users have experienced a poorly localized app, the highest rate of all European markets surveyed.	Low-quality localization can alienate users, harm your brand, and limit monetization opportunities. Be sure to check out Chapter 6: Going Global of the Business Kit, for more best practices and tools for localization.

✛ Making great games

	ℹ FACT	⭐ RECOMMENDATION
French mobile gamers are more likely to spend on unlocking new chapters than other content.	31% of the monthly purchasers surveyed have spent money to unlock new chapters. The other common purchases include: purchase to clear a difficult level (20%); stock up virtual goods (19%), and upgrade to a paid version (19%).	Keep providing new levels to your game to expand your users' lifetime value and keep them engaged.

Google AdMob

Making great games

	FACT	RECOMMENDATION
Game designs, quality of graphics, award systems are important to French mobile gamers.	53% of smartphone users surveyed who play mobile games at least monthly rate game design as very important, followed by quality of graphics (47%), and the ability to earn points, rewards, and achievements (43%).	Hallmarks of a high-quality game are engaging aesthetics and rewarding gameplay.
Tablet gamers care more about the quality of graphics and cross-device compatibility.	59% of tablet users who play games at least monthly marked quality of graphics as very important, 12 percentage points higher than smartphone gamers. 44% said it's important for high-quality games to be playable across devices.	If you're targeting tablets gamers, spend extra time optimizing your games for larger screens, and use cross-device capable engines and build in mechanisms to allow gamers to continue progress wherever they are.

Integrating ads

	FACT	RECOMMENDATION
Similar to other surveyed markets such as the US and the UK, French users prefer to see ads between activities and on top of the screen.	Almost half (48%) of smartphone users surveyed prefer to see ads shown between activities and not in main app activities. 28% prefer to see ads at the top of the screen.	Focus on maximizing users' ad engagement without interfering with their experience if you're monetizing your apps. Also, here are some tips to get you started on implementing interstitials with AdMob.

Russia

Choosing a monetization model

	FACT	RECOMMENDATION
Similar to China and Brazil, Russian smartphone users are more likely to spend money for an app.	Only 38% of the smartphone users in Russia surveyed said they only download free apps. 26% would spend up to 100 RUB and 15% up to 200 RUB.	Similar to other fast-growing markets, experiment with different app monetization models, and don't exclude the paid model.
Gaming apps and m-commerce apps have the highest levels of spending.	Russian smartphone users spend most of their money to pay bills, purchase goods and services through an app, make payments via wallet apps, and play games.	M-commerce is on the rise in Russia. Traditional businesses should invest in and build apps to expand ways for potential customers to shop and purchase products or services more conveniently.

Getting discovered

	FACT	RECOMMENDATION
Online search ads are the top ads placement for driving app downloads in Russia.	35% of the Russian users surveyed have downloaded an app after seeing an ad from an online search.	Include mobile search ads in your user acquisition strategy.
Russian users prioritize free trials of the app, user ratings, and family and friends' recommendations when selecting apps to download.	Russian users ranked these three factors as 'very important.' 59% of users rely on free trials, 58% on user reviews and star ratings, and 48% on recommendations from friends or family.	Consider freemium models. Provide a free but complete experience to your app users. Make it easy for users to leave reviews and ratings and share with friends. Be responsive to user-reported issues in user ratings.

😊 Keeping users happy

	ℹ FACT	**⭐ RECOMMENDATION**
A vast majority of smartphone app users in Russia who value frequent app updates prefer updates at least monthly.	51% of the smartphone users who think good quality apps should have frequent updates prefer monthly updates and 32% prefer weekly.	Update your app regularly to keep users happy.
Russian users value easy navigation, ability to personalize and app design.	67% of Russian users rate easy to navigate as very important, followed by ability to personalize the apps to your needs (57%), and app design and aesthetic (48%).	Create apps with intuitive navigation. Depending on the app type, consider adding customization elements for users to personalize their experience. Here's a great training on designing effective navigation.

🎮 Making great games

	ℹ FACT	**⭐ RECOMMENDATION**
Racing, education, action/adventure, and strategy/simulation games have different levels of popularity between smartphones and tablets.	The percentage of Russian smartphone users surveyed who play mobile games at least monthly play different types of games on smartphones vs. tablets: racing (32% vs. 49%), education (28% vs. 38%), action/adventure (27% vs. 44%), and strategy/simulation (23% vs. 39%).	Don't miss out on larger-screen opportunities. When creating games of these genres, keep in mind they can be more popular on tablets than smartphones.
Russian gamers are more likely to stock up on virtual points or currency than gamers in any European market surveyed.	44% of the Russian smartphone users surveyed who made in-game purchases at least monthly reported they have spent money to purchase virtual goods/points/coins. 41% have purchased to unlock new chapters.	In-game purchases for virtual currency to advance gameplay, and for new chapters to expand gameplay, can be a good monetization strategy when creating games for the Russian market.

Integrating ads

	ⓘ FACT	**★ RECOMMENDATION**
Russian users have the highest ad recall rate	67% of Russian users surveyed recall seeing an ad in app in the last 30 days prior to the survey, the highest of all European markets surveyed. And about half of these users engage with ads some of the time or all the time.	Even as Russian users are more likely to make in-app purchases for apps like games, be sure to include advertising in your monetization.
Gamers in Russia have the highest preference for interstitial full-screen ads or video ads than users of other types of apps.	Across different types of apps, gaming apps have the highest percentage of users (30%) who prefer to see video ads or full-screen ads shown between tasks or game levels.	Consider implementing engaging full-screen interstitial or video ads for gaming apps. Here are some tips to get you started on implementing interstitials with AdMob.

Optimizing For Success

Successful apps use data to optimize on their designs after launch. In this chapter, we explore how to optimize your app to reach your goals.

Now that you've built and launched your app to the world, how do you know whether or not it's successful? If you focus on the total number of downloads as the sole metric of success, you may miss most of the story. Having a lot of users is great, but if your goal is to monetize via in-app purchases, or to promote the adoption of a specific set of new features, focusing on total downloads won't give you much insight into whether you're achieving those goals, and what you can do next to improve your app.

In this chapter, we'll discuss how to design and implement an analytics and optimization strategy that can give you deeper insight into how your users are engaging with your app, and how you can use that data to optimize your user experience over the long term.

Case study: Certain Affinity
Certain Affinity used Google Analytics for Mobile Apps to identify and influence pre- and post-release design decisions for their first mobile title, Age of Booty: Tactics

Background
Certain Affinity is one of the most experienced independent game developers in the industry. Based in Austin, Texas, with more than 80 full-time employees, they've shipped more than a dozen products with combined sales of more than 75 million units. Most notable among these are co-development on the Left 4 Dead, Call of Duty, and Halo franchises. Recently, Certain Affinity has been working on their first mobile title, Age of Booty: Tactics. It's an asynchronous turn-based tactics game hybridized with a collectible card game.
Certain Affinity wanted to measure and analyze specific metrics to influence both the pre-release and post-release designs of the game. They researched a number of analytics solutions, but were frequently frustrated by the cost, size, and limited flexibility.

Ramping up reporting
Certain Affinity has used Google Analytics for website analytics since 2005, and began talking to mobile partners after becoming aware of Google Analytics' (GA's) application in mobile gaming. Given their existing experience, the relative cost of the platform, and the extensive feature set, Certain Affinity quickly and easily integrated GA into the game. The early inclusion of GA into the design process allowed them to use analytics to assist in influencing direction across design, art, and ultimately production.

UI optimization

Google Analytics for Mobile Apps provides an intuitive way to understand engagement across multiple screens and events. Using engagement flow and average screen time analytics, Certain Affinity understood when specific areas within the UI were either too complex or buried to deliver the desired behavior. They identified the storefront was overly complex and required significant streamlining to become easily accessible. Additionally, they found that a number of options within the menus were too complex and lead to users looping within the UI prior to engaging in an actual game.

Gameplay duration

Certain Affinity wanted to better understand the average duration of play to optimize the experience on mobile. Given that users tend to spend less time gaming on their mobile devices than in the console space, it was vital to ensure the game was consumable and enjoyable in the "bite sized" engagement window. They used session durations to understand the existing top-level behavior, and found that the typical session was over 25% longer in length than was ideal. They tracked events such as turn submission, undo, and return to main menu to identify any behavior that was artificially extending the average duration of play. They then focused optimization on areas requiring the most work.

Custom dimensions

Certain Affinity used the custom dimensions and metrics feature to measure analytics in the mobile gaming space, including retention, virality, and monetization. While this data was not widely used until launch, the ability to verify collection was instrumental in ensuring a successful soft launch. "The flexibility GA provides is quite amazing. While no analytics provider will ever have everything you need out of the box, it's great to have a solution that allows us to implement our own requirements [through custom variables], so easily!" explains Certain Affinity's Lead Server Engineer.

The power of data

Since Certain Affinity began with Google Analytics, they've shifted how they develop and implement within their studio. Development is no longer a strictly qualitative process, but is supported and elevated through the use of analytics and data on a daily basis.

About Google Analytics

Google Analytics is the enterprise-class analytics solution that gives companies rich insights into their digital audiences and marketing effectiveness. With features that are powerful, flexible, and easy-to-use, companies large and small can measure engagement to create more effective marketing initiatives, improve user experience, and optimize their digital strategies. Sophisticated conversion attribution and experimentation tools help savvy marketers determine the best allocation of media and resources to drive results. For more information, visit google.com/analytics.

Certain Affinity At a glance

Goals:	Approach:	Results:
• Use analytics to help inform games design and optimize monetization • Quantify and improve overall retention, monetization, and virality of Age of Booty: Tactics • Provide timely cadence of analytics-driven feedback to influence development and live team	• Establish data-driven decisions as a key pillar of the design process, starting in pre-production • Integrate Google Analytics to understand and optimize UI flow, customer behavior, and accessibility • A/B test with GA testing to better understand the estimated price elasticity and impact of marketing campaigns	• Optimized average turn duration from 3.08 minutes to 2.10 minutes • Reduced screens per session from 15.5 to 8 (cleaner UI/less back and forth) • Reduced time per screen from 2 minutes to 1:33

Getting the answers you need

Before collecting any data or running any reports, it's critical to spend some time determining what business or user experience questions you'd like to be able to answer.

For example:
• Are you increasing the rate users complete an in-app purchase or non-monetary goal (like a signup or level completion)?
• If the length of each engagement with your app is important, are you improving the average length of a session with your app? Or the average time spent on a particular screen? View Figure 1
• If you're running marketing campaigns to acquire more users, which are performing at or under your target cost-per-acquisition (CPA), and which aren't? View Figure 2

List out all the data points you'll need to answers those questions. For example, what screens do you need to measure impressions for? What user interactions, like button presses, form submits, in-app purchase completions etc. would you need to measure?

If you're running paid marketing campaigns, consider the channels, and downstream user activities, like goal completions or in-app purchases, you'll want to measure to gauge the return on your marketing investment.

Getting the data you need

Now that you're ready to implement a solution for your app, how do you know which third-party solution to use, or whether to develop tools in-house? When considering an analytics solution, whether it be third-party or your own, consider these questions to help you decide what's going to be the best fit for your app and your business:
• Will this solution get you the data you need to answer your top acquisition, engagement, and monetization questions?
• What is the cost of implementation and maintenance?
• Do the benefits of getting answers to your most pressing user experience and business questions outweigh these costs?

As you think about the costs of deploying and maintaining your analytics solution, consider using Google Tag Manager to configure your analytics implementation from the cloud. It can significantly reduce maintenance and deployment costs. View Figure 3

Optimizing mobile games with Google Analytics

• Measure in-app purchases to understand the value of your users and track progress against monetization goals.
• Create custom dimensions and custom metrics to measure goals and create segments important to gaming, like level completions and character level advancement.
• Create user segments that show metrics for players who meet certain lifetime criteria, or have completed a specific sequence of events.
• Use the Engagement Flow report to understand whether and where users are getting lost in your UI.
• Measure effectiveness of your paid acquisition campaigns.

Taking action

Collecting data and building reports adds no value to your business on its own. The value comes from being able to use that data to answer your most important business and user experience questions, and then being able to take action on those insights to improve your app and grow your business.

In order for this to happen, the data you collect needs to get into the hands of those who can handle the analysis and who can change the product. Sometimes these are the same person, but in larger companies and development studios, it's important to identify who can do the analysis you need, and who can actually implement changes based on that analysis, like a product or engineering team.

Google Analytics can make providing data access to the right people easy. Google Analytics offers flexible, enterprise-ready user permissions, the ability to generate and share custom reports and dashboards, and a Core Reporting API so you can export your data into your own visualizations and other internal systems.

Ultimately the real value of gathering data and performing analysis comes from the actions you are able to take as a result of your insights. Are users not using the new feature you just launched? Try making the button or link more prominent, and compare week-over-week or month-over-month adoption. If a particular marketing campaign is driving downloads under your target cost-per-acquisition (CPA), consider increasing investment in that campaign and measuring whether you can acquire more users within your target CPA.

To make changes to your application more quickly based on your analysis, consider using Google Tag Manager for Mobile. You can use it to push updated configurations to your app on the fly, without needing to resubmit your app to marketplaces, or waiting for users to choose to update to the latest version. View Figure 4

To download to the next section, Key Takeaways

Click here

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