The Ultimate Guide to Mobile App Development

LANARS

I have an idea for an app, now what?

Are you close to building your first tech startup? Do not hesitate to check if your mobile app idea is worthwhile learning from the first-hand experience and do not rush to rent an office or move to Silicon Valley!

Sobering statistics: in 2018, for more than 69% of entrepreneurs in the US, the very first business has been started from their home place. And only 13.5% of global startups are being launched in Silicon Valley and San Francisco.

What you really need is to conduct marketing research, discover your target audience, and develop an app budget.

Is My App Idea Good? Do the Market Research

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Market discovery stage basic questions	**1** **What my target market looks like?**
2 **Could my idea in demned within the next vears?**	**3** **Who will agree on paying me for my services and how much?**

What my target market looks like

Outline your general market field, specify your niche, and finally look through what's going on there. A good idea is to check main competitors (10 niche leaders) and then switch to smaller ones (10 randomly chosen firmly standing players from the first hundred).

Figure out what makes your offer different from their ones and study their market strategies and promotional channels.

Find those who sell a similar product. That should be the first stage of the search for your competitive advantage.

Could may idea be in demand within the next years?

That is all about your target audience. To reach it you need to know what it looks like. Summarize your tech startup idea from the customer's point of view, outline key advantages of your product, and

think of people willing to use it. Here, you'll need to answer the following additional question:

- **What customer's problem are you solving?**
- **How serious is that problem? Does it affect the life quality of those people?**
- **Aren't there any already existing substitute solutions available for your potential customers?**

Finally, develop the image of your target users and make general assumptions about their number. Don't forget to clarify demographic questions (age, gender, region, and household incomes).

Who will agree on paying me for my services and how much?

"I have a mobile app idea" you may say. OK, let's check if it is possible to turn into business by forecasting your incomes earned during the next years.

Take the estimation user number, keep in mind their material status, behavior model, and competitors' offers and determine the minimum and the maximum amount of money that these people can pay you.

Assume the price of your product and remember that soon you'll need to compare it with your break-even cost.

What to Do with an App Idea? Craft Your Value Proposition

Obviously, it's not enough to have a mobile app idea if you dream of a profitable startup. The marketing survey is a tool to learn if there any demand for your future offers as well as to calculate potential income.

Use the results of the marketing research to design a strong value proposition for your customers. The one that will leave your existing competitors far behind.

There are some tasks of the value proposition. Make sure that your hypothesis regarding it satisfies each of the points:

- Your proposition should attract your target audience
- It could become viral and spread with a less promotional budget
- It increases user loyalty and converts newcomers into regular customers
- The proposition is a justification for a higher price
- You easily outperform direct and indirect competitors

Mind that your value proposition is not what your startup actually does and not how the idea for an app sounds, but a reason for your target audience to buy something from you.

> *"Your value proposition should be specific, measurable, and unique otherwise it will not sound convincing enough for your client."*

The uniqueness of the proposition detaches you from competitors with similar products and help you to compete with them not at the price level, but the level of quality or additional services. A good proposition refers to customer's insights and fears, describes how the customer's problem will be sold, and give reasons to act now.

To craft your value proposition, we advise you to follow those stages:

Stage 1. List all value proposition ideas

Do not limit yourself to one idea. Try different approaches. Your value proposition may be unique and general (like Instagram) or focus on specific aspects of the service (like Uber).

Stage 2. Find claims of value and rate them

How could you prove that you can help people? Think of your support service, experience, app customization, etc. Indicate as much evidence of your responsibility and competence as possible. After that, evaluate each of the items to choose which ones are decisive for potential customers.

Stage 3. Match major claims with strong evidence

Determine which of your promises to your target audience received the highest rating. Strengthen them with arguments and facts. Congrats, your value proposition is ready!

How to craft a value proposition. Main brainstorming stages

Stage 1

List all value proposition ideas

Stage 2

Find claims of value and rate them

Stage 3

Match major claims with strong evidence

Who Will benefit from My Good App Idea? Identify Users and the Audience

In the previous paragraphs, we've already touched a target audience aspect. As you see, a clear understanding of what your future users look like is a core factor of your business success. Here, we'd like to give you some simple instructions on how to conduct your target customer survey and several hints to avoid mistakes having a low budget for the research.

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I have a great idea for an app, now what? Follow our instructions!

Step #1. Select your target audience

Let's make it clear. The target audience of your startup brings you money and one of your apps could just use it, share the information about it, and act in a way you need. Those two target groups could be the same, but usually, they are different.

For example, if you use the Freemium monetization model and show users ads in the free version of the product, you've got a split audience. Your app has to attract users, while your sales managers struggle for profitable collaboration with famous (and rich) brands.

Step #2. Find your market segment

There are two basic categories of business. The one serves end customers (B2C), the other works with companies (B2B). You could serve both of them at the same time.

Distribute your customers in smaller groups by answering questions about their age, gender, region, material and marital status, and occupation. That also works for B2B segment where you need to determine business types you are going to sell your app to, as well as a portrait of the person who is in charge of buying such products for a company.

What to do with an app idea on this stage? The most common way to divide the audience into segments is based on location, device type, demographic and solvency principal. The last one is about getting to know if your target audience is likely to pay for your solution.

That is also important to draw detailed customer portrait using such criteria as interests, life values, and the style of making decisions on buying products like your app. Think of your audience's needs and motivation.

Stage #3. List problems of your audience groups you're going to solve

I have an app idea, what's next? It's not only about the core functions of your app but about deeper insights such as lack of communication and self-expression that you target customer may suffer. Create a wide list of psychological and practical problems, match them with solutions you might propose, and find customers' true motivation to buy your product.
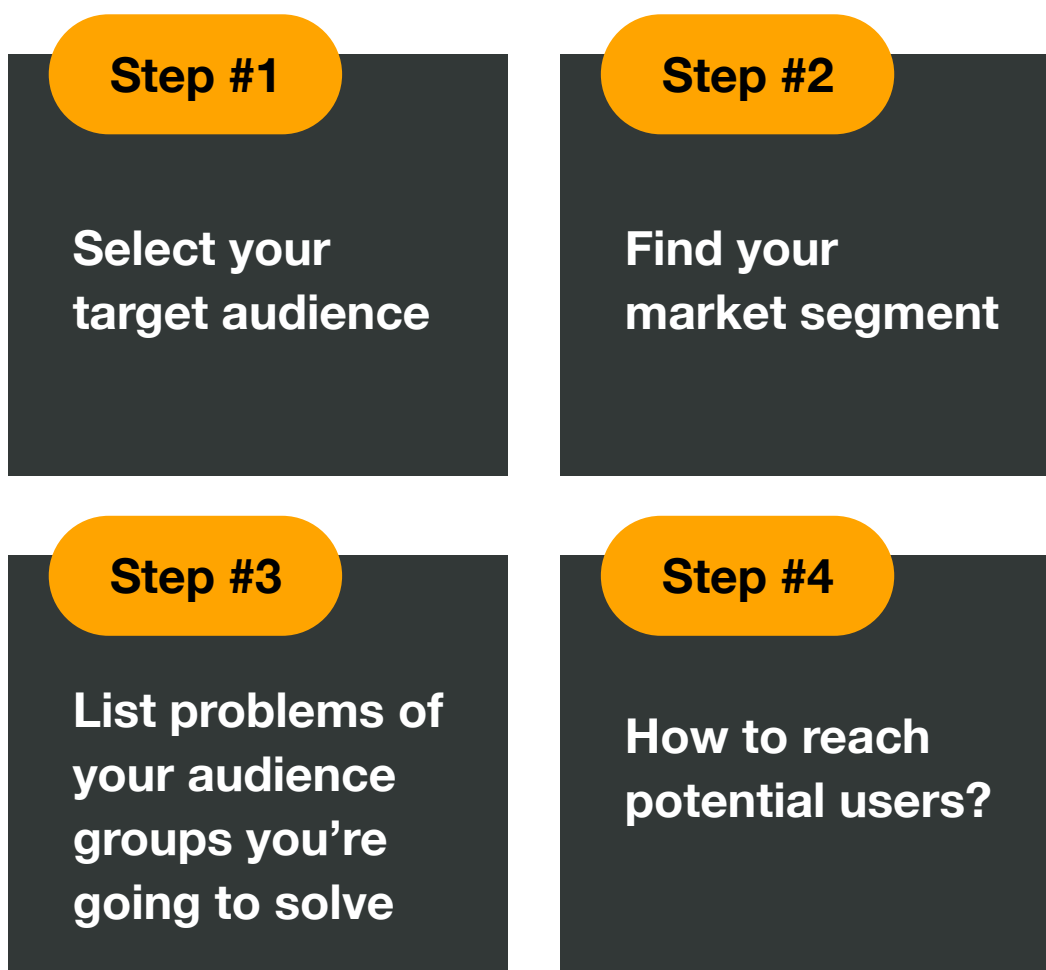
Stage #4. How to reach potential users?

It's great if you know your target audience geographical location. At the same time, in the case of mobile app ideas, the product geography may be flexible. You can focus on a regional market or sell your product worldwide.

The other question is what is the best way to meet your target customer. On Facebook? At work? Offline? Figure out what media

content they consume, what devices they use, and what places they visit. Later, that will be the basis of your promotional strategy.

To save research costs, conduct you survey both online and offline: create a landing page MVP to collect email, check social profiles of the representatives of your target groups, study statistics of your niche, and create a consultative group of several random people to proceed oral or written surveys.

You may also use such tools as interviews, polls by email or phone, and field research. Use several methods at once to make the results precise.

Step #1

Select your target audience

Step #2

Find your market segment

Step #3

List problems of your audience groups you're going to solve

Step #4

How to reach potential users?

Where Is Money? Identify the Monetization Strategy

Having an idea for an app doesn't mean having an idea of how to get the revenue out of your concept.

Monetization concept development is another critical step within the app launch procedure. To find a proper monetization model you need to analyze your competitors' monetization experience and already developed target audience portrait. Try to find answers on the following questions:

- **What monetization strategies are commonly used by major competitors?**
- **Would your target customers be ready to pay for your app or its particular features? How much?**

Having those answers, choose the best monetization model for your new app idea or develop a hybrid one mixing various approaches. In our blog, you can find an ultimate app monetization guide. Use it to clarify each commercial approach listed below:

Paid Apps

Nowadays, most apps are free to download and people are accustomed to freeing solutions, but it doesn't mean that you can't create a paid one and become a successful entrepreneur. In 2019, the average app price is less than $0.5. They offer customers no-ad user experience, extra product quality, and unique solutions.

In-App Advertising Model

Surprisingly, marketers spend more money on Internet advertisement than on any other kind of promotion including TV — in 2018, $180 billion were spent on mobile advertising globally.

The app of that kind is free to download, but a user has to deal with a certain amount of ads inside it. Short videos, vertical and horizontal banners, permanent text ad section, and interactive images shown while the app is updating are just a couple of examples.

That is the most popular monetization concept as it is easy to implement with the help of any in-app advertising provider. The more people will use your app, the more money you'll get from your provider.

In-App Advertising Model

Keep your app free to download and develop some features your audience would be excited about.

Extra lives, additional levels, power-ups, and virtual currency inside mobile games are the brightest examples. Photo editing apps also use the in-app purchases model to sale filters. Games, dating apps, and media editing tools are most successful in selling additional features and virtual objects within their framework.

By the end of 2020, the in-app purchases revenue will grow to $71 billion.

Paid subscription (Freemium)

Freemium model is not limited with paid subscription one, however, that is the most common approach of using the concept. The idea for a new app of the Freemium type is to let users download the app for free and then to propose them to purchase its premium version where there are no ads, lots of extra services, and personal support if needed.

The concept can bring you constant revenue, unlike paid apps that need to make their audience wider to get everyday revenue.

Remember that your new app idea may include several approaches. For example, you can use a paid subscription model and cooperate with in-app advertising provider at the same time. In this case, you will gain half of your revenue from engaged customers who decide on buying the subscription and another half will come from ads rotating for less engaged users.

How to Develop an App Idea? Executive Stage

Well, now you've got results of the market research, basic revenue calculations, and some general observations about your app development and promotional budget. Let's move on to the executive stage!

Here, we'd like to go through the critical app development stages.

Web or Mobile?

I have an idea for an app, what's next? The basic question you need to answer on the pre-development stage sounds like "Should it be web or mobile app?". The answer will affect your budget, development team line-up, as well as project timelines.

To choose the correct option, take into consideration your target audience features (what is more convenient for them to use — mobile websites, cross-platform apps or native apps?). The second factor that may affect your decision is the flexibility of your budget. Any costs should be justified, right?

If you have a great idea for an app and you don't know what kind of tech solution you need to implement, use our comparative analysis:

Native Mobile Apps

Native apps are designed for specific platforms. Most often it is iOS or Android. They offer better user experience and are faster than websites for mobile. Native apps should be installed from the Google Play Market or App Store. Their major advantages are following:

- Added UX value (you can engage users with special animated features)
- Intuitive UI environment
- User customization options
- Offline usage
- Access to built-in mobile device features to enable extra features

There also several disadvantages. First of all, to build a native app that everyone can use, you have to invest both in Android and iOS development. Such development takes more time.

Cross-Platform Apps

Cross-Platform development can be a good solution for those, who'd like to keep a balance between the high speed of their apps and appropriate user experience.

Cross-Platform apps could be downloaded both to Android and iOS devices, they have poorer UX and UI still having such options as offline access and friendly design environment comparing to mobile websites.

Disadvantages — less customized UX and UI environment, poorer animation compared to native apps, and lower operating speed.

Mobile Websites

Mobile websites don't need any downloading process, users just open their browsers and start working with the app. At the same time, mobile websites should be responsive and have an adaptive layout, otherwise, they will be inaccessible for people with different mobile devices. Mobile website development is less costly compared to native app one.

Let us name some major positive features of mobile websites:

- No downloading is required (but user need to have Internet access) — your product is ready to be used by anyone
- No unexpected updating process — always fresh UX and UI
- Lower development costs

Mobile websites approach is less popular today. The industry had generated less revenue than mobile apps one, which is expected to grow twice in the next 2 years. However, mobile websites are a good MVP solution as it helps to reduce development costs and help you to reach a bigger audience.

In-House or Outsource?

If you have an idea for an app and a general view of how it should work, that's time to ask the price of developing your product in different companies and different regions.

In-House Software Development

In-house software development is a process which is going on inside the company that needs the software. Usually, the company has an inner development unit and a constant need for IT tools development. In-house developers are regular workers of the company, they receive their salary regardless of the project they are working with and time spent on them.

Full-time in-house development is costly. The only way for it to be reasonable is a long term basis.

Advantages:

- Faster face-to-face communication inside the team without cultural, language and time zone boundaries
- Deeper team members project experience
- Better engagement into the engineering process
- Fewer time spendings on the same operations

Disadvantages:

- High development price
- Low border expertise
- Professional drain

Outsourced Software Development

The key idea of the outsourcing model is to dedicate the development task to the specialists (or entire teams) that have deep expertise in the tech area. They are likely to finish the task faster, make fewer mistakes, and, what is more important, it will cost you less than hiring regular full-time workers for some on-time tasks from your region.

An outsourcing company can build any digital products for your business. All you need is to choose experts in your area. You may save even more working with an outsourcing company from the region where hourly rates for the work of the same quality are the lowest.

Advantages:

- Smart pricing
- Fast team scaling
- Deeper specific expertise
- No staff support issues
- Well-established processes with accurate timelines

Disadvantages:

- Cultural, language and timezone barriers slow down the process
- Commercial secret risks
- You may need constant tech product support services from the vendor's side

Create Wireframe

How do you develop an app idea? The next critical development stage is wireframing. And yes, it's about design. Wireframing could be compared with architectural blueprinting of a human skeleton. First, you think of main features and target audience app usage habits, second you try to figure out the number of screens, buttons, graphic elements, and interactive fields you'll need to meet user expectations.

Mobile app wireframe covers several aspects of UI and UX design:

- Content (text, images, and interactive elements)
- Features technical implementation

- Possible user actions and user journey mapping
- Space distribution
- Screens transitions
- Data storage architecture

It's good if you have different variants of app wireframes. The next step is to show them to your focus group and get to know which approach is better. Remember, that wireframing may also include basic branding sections such as brand palette, firm style features, logo, visual tone of voice, fonts, and some key images.

Create an MVP

A Minimum Viable Product (MVP) is not an app wireframe or draft, but a working app model with only major product features. An MVP is a way of app idea testing and a chance to avoid losses. In our blog, you may find an MVP building guide. Read and follow it carefully to develop an app idea in a money-saving way.

In this paragraph, let's name key MVP development stages and make a general overview for each of them.

Step #1. Decide on key features

Some features of your app might be critical to app functionality and some of them don't. Choose the most important and list them. Remember, that your product should be viable and clear for future users. If you've got peered features, keep both of them.

Step #2 Create an MVP wireframe	Think of screens, their content, active elements, and graphics. An MVP wireframing will help you to clarify the development budget and set timelines for your team members.
Step #3 UX and UI design	An MVP is a ready-to-use product with limited features. It requires the same specialists to be implemented as a regular app does. At the same time, designers will spend less time on your MVP than on final product, because they will work out fewer screens.
Step #4 Programming	Develop, check the quality of the product, and test its features! Regarding the type of your app, you'll need different specialists to execute the development task. Project manager, QA, designer, and copywriter are also involved here.
Step #5 Marketing, launch and results learning	This stage usually starts soon after you decided to develop an app idea. Branding, promotional channels, and strategy, project launch support, as well as learning real-user behavior and statistics, are direct tasks of the marketing department.

The idea of an MVP is to help you to know if your idea is demanded and what aspects of it you need to improve.

How Much Does It Cost to Develop an App?

In this paragraph, we will analyze some key factors that affect app development budget and give alternative ways to estimate the project:

- **Functionality.** More features mean more working hours
- Supported platforms, devices, and screen sizes. More options — more money. Consider that some platforms require more costs: iOS app development is usually 15% more expensive than the Android one.
- **Design complexity.** The number of screens and visual objects inside them raise costs.
- **Mobile device features incorporation** — GPS navigation, camera, and other technologies.
- **Project deadlines.** If you'd like to speed up the process, you have to pay extra money.

Each development stage — market research, design, development, testing, and launch could be estimated separately, as you don't need all type of specialists at one moment. You can also separate costs by employees involved in the development process.

To form a team full-cycle team you need at least 4 employees — Project Manager, Programmer, UI / UX designer, and QA. You'll find the full list of specialists, their types, and rates below:

Visionaries $40—70 per hour
Who? Project Manager, Business Consultant, Business Analyst, and Strategist

Designers $35—77 per hour

Who? Application Architect, Strategist, Navigation Planner (UX), Visual Designer (UI), and Content planner
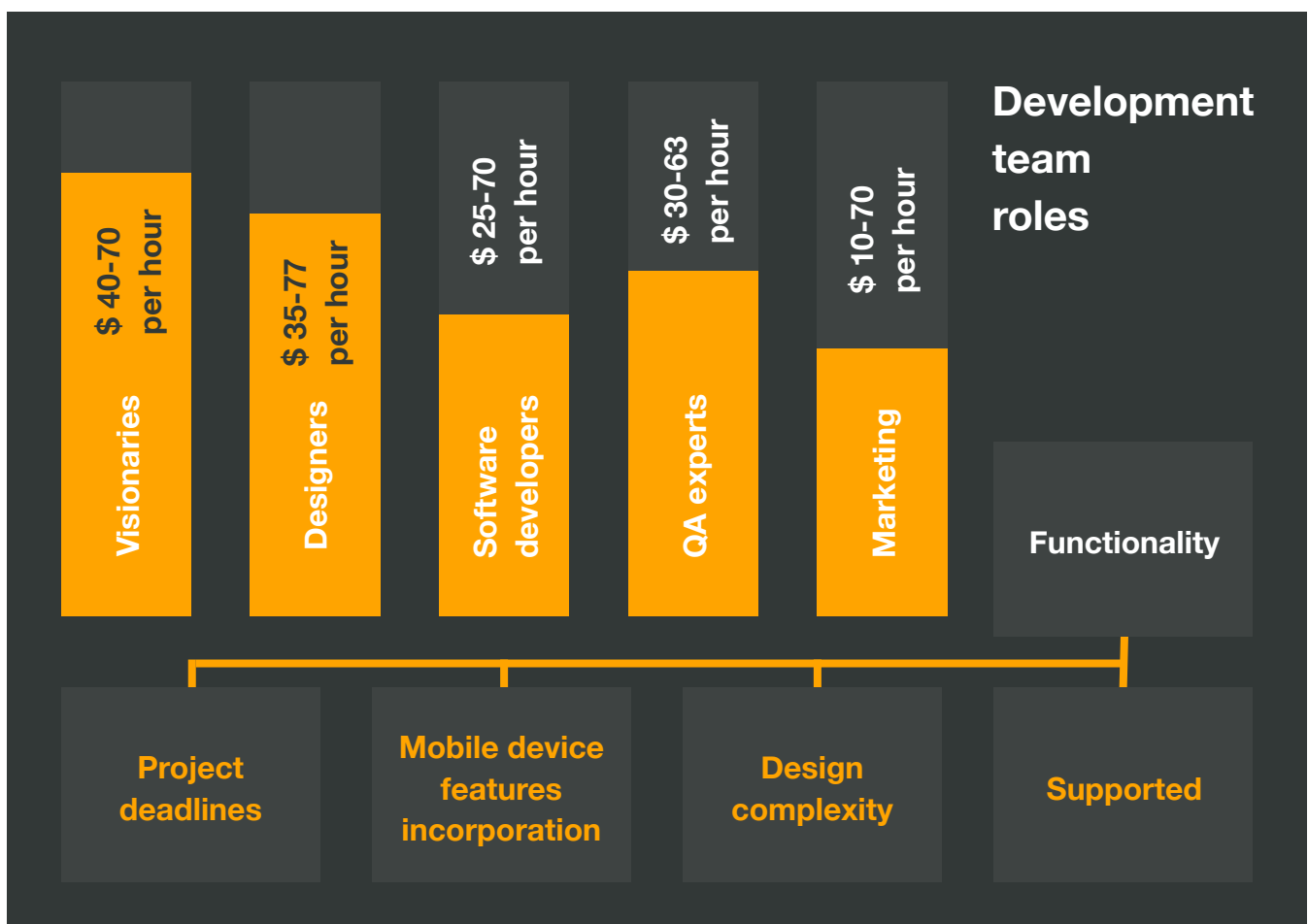
Software developers $25—70 per hour

Who? Data Modelers, Back-end Developer, Front-End Developer, Embedded Systems Developer, API Developer, and many others

Quality Assurance experts $30—63 per hour

Who? QA and Marketer

Marketing department $10—70 per hour

Who? Copywriter, Designer, Brand Manager, Database Analyst, and Infrastructure Analyst

Development team roles

Visionaries — $ 40-70 per hour
Designers — $ 35-77 per hour
Software developers — $ 25-70 per hour
QA experts — $ 30-63 per hour
Marketing — $ 10-70 per hour

Functionality

Project deadlines — Mobile device features incorporation — Design complexity — Supported

Besides app development costs there are also app maintenance costs which usually are around 17% of the basic budget. They include expense items such as monitoring, ongoing marketing, app updates development, hosting, and legal support.

"I've built my app!" Build—Measure—Learn concept

The concept was developed by Eric Ries and has been described in his The Lean Startup book; it helps any startup owners to speed up business processes and avoid money-consuming mistakes like developing features or products nobody wants to use.

The Lean Startup is a startup that never stops improving itself (the mechanism is called feedback loop). In brief, it is based on MVP-cycle also named Build—Measure—Learn.

Move from a single idea (or hypothesis), estimate resources needed for its testing, create code, and then try to gain as much user behavior data as possible. Analyze user feedback and make a conclude whether your idea was profitable or not and how you should improve your app to make it more user-oriented.

The Lean Startup is a scientific method of launching startups and improving its features. It could be implemented on any startup development stage as well as used as a tool to optimize communication and marketing processes.

How you can monetize your app idea

Well, you've got an app idea. What's next? A piece of good advice is to stop thinking about engineering and to figure out how your revenue model will look like. Monetization strategy could be defined through several questions. Will the app be paid or not? Do you need online purchasing instruments or will you have enough profit from advertising in-app? Do you even want to care about how to sell the application to users, or perhaps it is better to shift the financing to the interested sponsor?

Good news: since there more than 2 million apps both in App Store and Google Play Market, you have plenty of examples to learn from. We will help you to understand the monetization definition in general and main app monetization strategies in particular.

"Monetize" and its definition

Whatever business we talk about, we always talk about profit. The monetization term is close to the concept of profit, although their meanings are not the same. In terms of business, profit considered to be the return of your investments in the form of additional capital. Monetization, in turn, is an exchange of goods or services for currency where the actual profit is not so important.

In the business world, monetization refers to the process by which something becomes a source of capital. However, if you ever decide to monetize an app it means you are going to get money from your product. This can be either a one-time profit from the sale of the application or, as is usually more desirable, you can make profits all

the time by serving users or selling an audience to an advertiser. Anyway, you need a monetization strategy to derive your revenue.

How do apps make money?

Let's start with the main thing. As you may have noticed in the App Store or Google Play Market, all applications are divided into paid and free. The average app price ranges from $0,5 to $1. Owners of such products profit from direct user sales.

At the same time, free apps make up more than 90% of both App Store and Google Play Market content. And here is another striking fact – 98% of the owners' revenue comes from free applications, according to Google Play. If you're wondering how free apps get income, here is the answer:

- Advertising with or without referral marketing (referral marketing provides an additional owner's income depending on the user's activity on the advertiser's site).
- Subscriptions that give an opportunity to use the app after the free trial period.
- Online sales (physical goods or services outside the app).
- In-app purchases (additional content or features) and Freemium as its type – the most profitable way to revenue from the app these years according to Forbes.
- Selling users' behavior data.
- Transaction fees.
- Sponsorship.

- White Label app sales (mobile app development services used by buyers under their own logo).

More complex sources of income include an offline sale. For example, fashion brands create viral apps such as Style Mixer app by Gap, which show the latest collections without giving an opportunity to buy it online. The wardrobe items can only be bought in the physical showroom. Check other examples. Although the monetization definition remains the same for any app there are plenty of strategies to embody it.

Monetize First – App Later

If you do not know why your business will bring you profit, you are not talking about business, but about a hobby. If you want your mobile application to be profitable, develop a marketing strategy for it. Mobile app monetization is an essential part of your marketing strategy. In order to make your business sustainable and do not fail soon after launch, consider a way to return your investment in advance. To get started, try to describe the app's idea as fully as you can.

After that, determine exactly who will use it. You need detailed portraits of your users. Pay attention to the age, habits, income, marital status of these people. Answer the question of how many of these people you need to attract and how much they are willing to pay for your application. Mind, that every single user will cost you money since you've got a marketing budget for that purpose. Make

sure that your revenue from a single user is bigger than marketing costs you've spent to attract him or her. Having the data at hand, try to choose the strategy.

> *"Remember: it is better to develop several hypotheses and test as many of them as possible than to invest all the resources in one strategy that may not work."*

How to make money on advertising in-app?

Mobile app ads are the cheapest, easiest and therefore the most popular way to get the revenue from your app traffic. It is used by 6 out of 10 mobile app development companies, Business of Apps said. The main rule of the strategy is that the more users you have, the more money you get by selling the audience to advertisers.

An important advantage of this kind of monetization is an engineering autonomy. Ad network company places advertising media blocks inside your application without your help. You do not need to sign agreements with numerous advertisers or search for them. Advertising in the app allows you to get instant profit which amount depends on the ad units number, the number of ad views or the click rate.

But not everything is so simple! 1 thousand banner impressions bring the owner, on average, only $2 per day. Third-party advertisements in your application may appear in several forms:

- Native ads.
- Full-screen pop-ups.
- Banners.
- Contextual text ads.
- The in-app videos shown for app reward.

The great example of advertising in-app monetization is free Duolingo app where ads are shown while the lesson content is getting loaded or for score reward. The strategy works excellent for games and daily life apps with a huge number of unspecified customers with various incomes.

Freemium Model. How free apps make money

A smart way to monetize means that you've got to build warm owner-customer relationships first and then ask for money. Try to find the most desirable piece of cake and to propose it to your customer for a moderate price and you'll soon become a winner just like Evernote and YouTube mobile app. Today, the Freemium Model ("free" plus "premium") is called the most profitable way to monetize apps.

The Freemium app provides free downloading and proposes you to use a functionally limited version without charging anything. The user can pay for the full package of application features and the version without ads (see paragraph above) if he or she likes the application. The fee may be charged to the user monthly and annually as a subscription fee or be a one-time action. But don't be so fast: according to Business Insider, only 2% of users pay for additional

functions or continue to use the application after the free period.

However, it is easier for the owner to sell something on his or her app territory, occasionally luring the user into the potential of a paid version. That's why the strategy is more likely to work comparing to paid per download one. The strategy works well for game, education, health, professional, communication, and sports apps.

Paid monetization strategy – paid to download

According to Google, in one of 10 cases, you have to pay for the app before installing it. Paid per download applications require a strong marketing strategy, otherwise, free analogs will eclipse them. If you are developing an application for sale, pay attention to advertising and PR, as well as pricing principles. At the same time, the fact that an app has a price sometimes is considered to be an advantage.

The paid apps market has lower competition level. It is also known that users who paid for the application behave more actively, becoming a source of further marketing research and promotion. Most of the paid per download apps are popular games. Another type of well-selling paid apps are those that offer exclusive software products and that are able to bring profit to their users. The market of such apps can be compared with the technology, manufacturing tools, and luxury goods market. If you chose the paid to download strategy, remember that the promotion of your product should start even before you market it. Another important thing that you should think about is the quality of the product.

Application buyers expect the quality of the product to be significantly higher than that of the free application. If you are going to disappoint them, get ready for strong negative feedback. According to App Store, in the second half of 2018, the average price of the application is between $0.5 (games) and $1 (apps). The most successful paid apps in the history of the Apple App are Minecraft, Angry Birds and Heads Up. Minecraft, Torque Pro, and Motor Depot are listed in the Play Market top.

Another Paid Monetization Method – In-App Purchases

In-App Purchases business model (also called Paidium) can sometimes be confused with the Freemium Model since the purchase of an enhanced version of the application also occurs within the application. However, In-App Purchases include a wide range of options. In particular, in the game industry and gamified applications, developers set their own currency.

"To top up the account" you could be requested for either performing some action inside the application or exchanging real money from to virtual ones. Reverse cash exchange is not always possible. In-App Purchases include selling of certain content such as articles, books, music albums, advanced functions, and movies. New levels of the game, virtual things, and the hero capabilities also can be paid. In 2018, Spotify, Line, Netflix, and Tinder applications in the Google Play Market got the highest revenue from In-App Purchases of their content (learn more).

Make Money With In-App Sponsorship

In-App Sponsorship allows owners not to care about the app's profitability by billing any costs to its sponsor. In turn, the sponsoring company receives an app as an extra marketing tool. Catchy content and viral spreading potential are common requirements for such products. Generating the interest of potential customers and loyalty of current ones is considered to be the main aim of the sponsorship for your sponsor. In-App Sponsorship can be obtained in several ways:

- **If you already have an idea of the application and you are sure that it will become highly demanded, you can offer sponsorship to a company whose audience matches with yours.**
- **If you are initially set up to receive sponsorship, consider the needs of the audience of the brand whose sponsorship you need.**

Subway and Marriott brands work by sponsorship model.

White Label Your Code

White Label concept actually means that you are making a product, which will later be used under your buyer's logo. White Label Code strategy is actively used by application developers serving small businesses in classic business areas. The best way to monetize an

app of White Label kind is to sell the same cheap templates to numerous local companies operating in the same field.

The advantage is obvious. The same White Label Code can be sold indefinitely, providing buyers with a convenient tool for self-customization. White Label strategy is suitable for taxi booking services, online stores, cafes, gyms, transport companies, and educational institutions. Agree, all these businesses have no reason to reinvent the wheel having your ready-made solution at hand.

Choose Your Own Way to Generate Income: Blended Model

A mixed app monetization strategy is a popular approach among software companies since no one wants to put all the eggs in one basket operating the budget. Moreover, mixed strategies increase the commercial sustainability of the product on the changeable app market.The majority of free applications uses embedded advertisements and an in-app purchase mechanism can be provided inside paid applications.

In addition, app hosting platforms offer loyal cooperating conditions for those owners who use paid subscription mode within their applications. However, there are less flexible monetization models. For example, White Label strategy and Sponsorship completely exclude other forms of monetization.In 2020, the most popular cocktail strategy is the combination of in-app purchases and in-built ads.

How to name an app: Find a perfect name for your app

You have decided to create an app already. And even know how the finished product should work. The next step is naming it.

Application naming is an essential part of its branding, marketers say, as the product name is aimed to evoke a brand feeling in the customer's heart and leave it in their memory by a particular label.

The app name will follow the product wherever it will appear, so that is extremely important to choose the name that could help your product to work its way up and face fewer marketing troubles.

Use Keyword for Your App's Core Features

Basically, why do you need app naming at all? As we've already mentioned, an app name, as well as an app logo, are the basis of its marketing strategy.

You need a laconic name because you probably need to be memorable in order to make potential users download your particular app but not one of your competitors.

> *"An appropriate name also helps you to reach a bigger audience on the App Store or Google Play Market as people use keywords searching for a new app to download."*

But what is even more important, an app name and logo is the first information you share with your potential user. That means that with

a great app name you may immediately evoke positive feelings and start forming the desired attitude to your product and company in people's mind.

It is important to understand that even a good app name is not a self-running instrument. It is designed to reflect the app market value. And the unique value of an app is its features. So don't even try to name your product if you don't know what features it has to perform. Remember: features first, app name next.

Clever app name should indicate what your app actually does. To begin with, take a paper and try to describe main app functions (or app idea) in short statements. When the work is done, underline the main words. Write down some common synonyms for those words and check what keywords your target audience may use to find the solution. Keywords searchers that could be useful for you are the following: WordTracker, KWFinder, and Soovle.

Example. Core feature – instant online messaging [media exchange, location sharing, socializing with friends, asking about news, video and audio calls, staying in touch with friends and colleagues]. Name – WhatsApp Messenger.

There is a lot of apps whose branding teams decided to stop already at this stage. *Facebook Messenger, Google Maps, Evernote, Tasker, and SleepCycle* are among them.

At the same time, generally, it is a bad idea to use keywords and description words only instead of the unique brand name. In that case, you may have a lot of competitors representing a similar

product with a similar name which makes it difficult for a user not to mix up apps. Find app name playing on meanings.

Take into consideration that you also have an app's description section where you could upload a text with necessary keywords. Don't hesitate to take keywords as a basis for an app name, but try to add something to them to make them unique, or transform them totally to create cool names for apps.

Example. WeChat came from word chat, Duolingo came from words two and language, SoundCloud came from sound and cloud representing a streaming music platform for discovering unknown artists.

How to name an app and avoid mistakes? Although a keyword that describes your app features gives you a great advantage, there are other issues you may express in the app name to overcome competitors:

- **App purpose or mission** (Charity Miles stands for donating charity projects through personal physical training, and Calm meditation app states its entire idea within a single app name)

- **Emotional context** (Instagram captures Polaroid instant photo nostalgia, and MyFitnessPal tries to become a pal of its user)

Remember, that you may explain your app features or idea using not only nouns but also verbs, adjectives, prefixes, and suffixes. Words like best, app, pay, get, or go, as well as part of the words like -on or in- also works well as a supplement for the keywords.

Use keyword for your app's core features

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(Charity Miles stands for donating charity projects through personal physical training, and Calm meditation app states its entire idea within a single app name)

Emotional context

(Instagram captures Polaroid instant photo nostalgia, and MyFitnessPal tries to become a pal of its user)

Pick the Obvious Name and Play on Words

How to find a cool app name? Collective word games instead of official brainstorming could be the best way to expand the borders of your branding concept. They could also help you to find both app name and the insight unique market value of your product.

If an obvious keyword-based name is too simple for you or if it just doesn't meet your expectation, continue the transformation. Keywords and words to express emotional background, your mission and the context is just the right point to start. The next stage is to create a memorable and easy to spell twist on them.

There are some promising word game ideas:

- **Find synonyms.** If you work in a field with a high competitive level, you may face the fact that all obvious keywords and their combinations have already been taken by early competitors. But wait! English is considered to be the richest language in the world and there are also more than 6,500 languages where you could borrow the word with the same meaning but different spelling. Use Thesaurus to find app name options. Examples: zero-waste family app Think Dirty doesn't use a direct description of its features in the name.

- **Basic words plus amplifiers.** Try to find words that could be incorporated into your creative app name. For this purpose take your keywords and match them with as many suitable adjectives and nouns as you can. Use emotional words to strengthen the meaning of the main one. Example: finance tracking app may be secure (protected, defended, guarded, or shielded) and integrative (centralizing, centripetal, or combining). Repeat the procedure until you have found a perfect couple.

- **Discover portmanteaus.** Combine keywords and supportive words to create a unique and memorable mix. You may take the beginning of the one word and the ending of another or put them together without any changes and then name your application. Example: Pinterest stands for pin and interest, Instagram came from instant and telegram.

- **Misspelling and remote letters.** There are two more ideas on how to keep a keyword inside the unique app name. If you've got a list of keywords, base words and synonyms, underline

best of them and try to spell them in a strange way. Example of clever app names: Netflix name came from the word net and flix which is a version of the word flicks meaning movies. You could also remove some letters from your name. It is better to reduce vowels that go after the main part of the word. Example: Tumblr instead of Tumbler.

- **Use dictionaries.** Regardless of which market you are focusing on, a promising idea is to translate you basic- and keywords into other languages. Spanish, Latin, Italian and Chinese are great options nowadays. Check how the word sounds in those languages and if it is easy to remember its spelling or not.

You could also pick some related words and popular phrases from international languages. That will make your product name extremely memorable. Examples of mobile app names: online social game Parchís uses the original Spanish national board game name while Alibaba Group, as well as an app, is named after the Arabic fairytale character Ali Baba.

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Best App Name Tips: Keep a Name Short and Memorable

One of the purposes for any commercial product to have a name is to make it easier for customers to find the product on the market shell or on the internet. The other purpose is to help people to spread information about the product by calling it by its unique name. In other words, if your app name is not just understandable but also short and memorable, you will automatically increase your chances to gain a new audience.

"A short and memorable name is a great competitive advantage for your app as people would recollect your app name speaking on the related topic."

Good names for social media apps are all like this.

But what does it mean to have a short name? Google Play Market, the App Store as well as other app downloading platforms have their own rules that regulate how many characters you may use to name your product. For Play Market, the number is 50, while the App Store allows using 30 characters at maximum.

Finally, only 12-characters-long app name will be seen in full on any screen, and 23-characters names appear properly on iPhones and iPads of all types.

Most apps' names have less than 10 symbols and consist of two syllables. Examples – Facebook, Skype, SnapChat, Uber and Tinder.

More about Uber app development read here.

At the same time, mobile app developers are used to adding to the app name words that could describe app functions such as LastPass Password Manager or Nova Launcher. They do not expect users to name their app by the full name but make it easier for them to find the app on the internet. It is also a great double shoot as apps like Nova Launcher could be reached both by searching Nova or just launcher.

Let's summarize some key criteria to follow in order to keep your app name short and memorable:

- **Uniqueness.** The fewer letters you use the fewer chances you have to invent something new. Check the availability of the name before celebrating your decision.

- **Pronunciation.** You may be surprised, but there are a lot of English words with only a few letters that are hard to read. Giving a hard-to-pronounce name to your app you make it impossible for people to discuss your product orally. Good examples of app names that are easy to pronounce – Tinder and Tasker, bad examples – Bouncer and Dolphin Emulator.

- **Spelling.** That factor is closely connected with pronunciation. It is perfect if you manage to keep your app name easy-sounding and easy-writing. Mind, that it is hard for people to remember words of more than 6 characters if they had never seen them before. Use short neologisms or real words and try to avoid complicated sounds that do not exist in popular languages.

Good examples – Uber and Tor, tough examples – Foursquare and Couchsurfing.

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Your Name Must Be Searchable

In 2020, there are over 2 million apps available both on the App Store and Google Play. Even though the developers of those platforms are trying to improve the search engines and use self-learning technologies to show users the desired search results, it is still a problem to find a great app if it wasn't named in a smart way.

To avoid being dropped to the very end of the searching list, try to predict or even plan the potential user journey.

"First, think of what section your target user will choose to look for a digital solution. Second, look through search results and create a blacklist of constructions used by most of your competitors."

The best app names are searchable. 63% of mobile devices users discover new apps by searching the keywords. So, third, think of keywords and their combination that you couldn't avoid in order to reach the target audience. You may use them if your competitors do not do the same too active, otherwise the audience will not see you on the first pages of the search results. By the way, Google optimization guidelines on app naming suggest using brand name plus key function naming formula.

Remember, that the app name is not the only place where you could put your keywords. Leave complicated constructions and long keywords for description which could be between 80 and 4,000 characters long.

If you are about to create an app for a highly competitive global market like social networking apps area or healthcare use keywords that could narrow down the audience.

Note that if your app name has a keyword, it will be shown in search results higher. The trick is how to avoid keywords used by every other competitor and to reach a specific audience. Example of mobile app names: VPNHub, Kiwi Browser, and Cookpad.

Check if Available: App Name and Domain

Regardless of how appealing your product name is, your efforts are wasted if the same name has been used by another company.

No platform allows to copy names and if your app name is just as the other one on the Google Play or the App Store it will be marked as the copy and the system will not proceed further uploading process.

The best strategy is to create an app name list and then check the availability of each with Google.

If you got stuck on app names stage, remember that there are a lot of free tools to help you with naming and domain checking. For example, Name Mesh is a popular generator to check if your name is not already taken as well as to develop name ideas from bold keywords. Online Name Generator and Dot-O-Mator are also a good option for those who got stuck on naming and could not find available app names.

An important obstacle you need to cope with is foreign languages and international language context. You may have found a perfect name that sounds catchy and is memorable for English-speaking audience, but what about people with another mother tongue? You can accidentally push an audience away from your product giving your product a name which sounds silly, offensive or vulgar in their languages.

"It is impossible to check all languages on the Earth, but a good piece of advice is to look for app potential name meaning in Arabic, Spanish, Chinese, Russian and French."

Be especially careful with neologisms. If it is possible, gather a focus group and ask its representatives about associations that your product name recall in their mind. The results might be surprising.

Domain check is also an obligatory stage of app company name approving process. Having a product with a particular name you need to consider that people may not just look for it on the App Store but also search for it on Google. You may also have a web application that should be downloaded from the web page and a landing page with general information about your product, team, and links to both the App Store and Play Market.

If your desired domain name has been already taken, you are not likely to appear in the first position in Google. That means that promoting your product and its name you'll share your played traffic with someone else.

🚀 How to Name Software: Use Slang, Textese, and Mix Everything Up!

Did you notice how hard it is to find good app names? Someone who've already experienced it by himself could even tell you that product naming is more exhausting than baby naming. For you not to become desperate and not to lose all initiative, energy, and creativity,

we've collected several out-of-the-box ideas of how to develop an app name.

- Slang is an inexhaustible source of words that are properly understood by the target audience. Naming usually follows marketing research stage which means that before name brainstorming you've already gained a clear understanding of what your target user looks like (and – probably – how those people express themselves). Create a list of really trendy phrases and words and play on them. Example of using slang in naming – Yass and Kahoot! apps.

- Special characters such as dots, numbers, colons, and dashes could be also useful in order to make your product spelling unique and memorable. Examples – Booking.com and Kiwi.com. Mix capitals and regular letters to underline the hidden meaning of the name or put down numbers instead of words to make the make shorter. Examples of nice app name ideas – ooVoo, HERE WeGo, YouTube, FaceApp, 1Money, and 4 Share App. If your name is too short and you have enough space for creativity, try to double some letters to emphasize particular meaning and pronunciation. Examples – Badoo, Moovit and Busuu.

- Melodically sounding name forms is a chance for you if you've already come up with a great app name but then realized that this particular name, unfortunately, had been taken. It might be too late for word transformation with -ify (like Spotify), but -i, -y, -o and -a are still a nice idea. Examples – Yummly, Smarty, Foodie, and Phonto. Words like this are easy to remember and not hard to spell.

✅ Conclusion

Naming and app name checking is a part of an app branding, and without branding, it is impossible to sell your product. However, there are two key points you need to be sure about while starting brainstorming over your app name.

The first is marketing research. You could not give an appealing name to your product if you hardly understand whom are you going to attract with it and why your main competitors are so adorable for their users. Research market, study your target group and call on a focus group if you'd like to do your best.

The second core point is the quality of your product. No matter how catchy your product is if its quality is low, your customers will not be satisfied with it. So, first of all, make sure that your product is good enough to be represented with a good name. Awesome sounding name has a chance to help you promote an app if only it really reflects app's features, philosophy or user's mindset. And the rest is about the creativity of your app name ideas!

What does MVP mean and why you need it?

You have the good idea and perfect name, but your future product will not bring you profits if people do not need it. How to determine if someone needs a product and not before the production start? Lean startup ideologist Erich Ries knows the solution. You need an MVP approach.

What is MVP and why does it matter?

MVP stands for a minimum viable product. The term was coined by Frank Robinson. Erich Ries, who became the main popularizer of MVP in the world, formulated MVP meaning as follows:

> *"The minimum viable product is that version of a new product a team uses to collect the maximum amount of validated learning about customers with the least effort.*
> *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses."*

In practice, the concept of MVP looks simple: the company launches a product ready for use on the market and strives to collect as many opinions of its users as possible. The trick is that the minimum viable product performs the main function, but it does not have all the variety of additional features originally conceived by the team. That is how the MVP definition could be translated in terms of marketing.

Why does the MVP concept work? Because it makes no sense to

spend the budget for the secondary improvements of the product, if the key function does not work as expected, or does not meet the users' need. To realize how much money you can save by applying the MVP concept, it's enough to keep in mind that over 45% of all IT products' functions are never even explored by most of their users, as Standish Group said.

Since MVP helps test a startup hypothesis by spending as little money and time as possible, there are 3 options you may face after MVP launch:

1. **If the hypothesis is completely correct** and people need the product, development continues.
2. **If the hypothesis is only partially true**, customer feedback helps to change and refine the startup idea.
3. **If the hypothesis is refuted** — well, at least, the company retained 90% of the funds allocated for the full implementation.

The best way to define MVP is to look on it through the launch checklist. There are several conditions you need to provide yourself with in order to create your MVP:

- Your startup hypothesis must be clearly formulated. Example: "we deliver food from urban restaurants to offices", "we help people buy tickets online"
- You need to know the viability criteria of your product. Example: if you are going to launch a network of art-house cinemas, you need to have at least one equipped cinema hall, one film, and one ticket office

- You should have the tech ability to create MVP and launch it to the market as soon as possible.
- You need to find the first users to collect feedback, and then to analyze the data and to determine whether your idea is worth developing.

MVP implementation is not a one-time action. Using the technique, you can endlessly test hypotheses and determine the nearest development plan for your business. The three key benefits MVP gives you are budget savings, the ability to optimize, rebrand or even radically pivot the product before the final launch stage and an early customer base.

What the difference between prototype and MVP?

Prototyping is an essential part of product design. MVP is a product so its design requires a prototype. Despite this, the prototype and the MVP concepts are sometimes mistakenly considered to be the same. Let's see where is the difference. A prototype is a simple visualization of future product needed for further product development and production.

Prototyping is used by those teams who are going to launch MVP, as well as by those who decide to release a completely finished product. A product can have many prototypes. The main task of the prototype is to visualize the service and its logic or to give as many samples of the future product embodiment as possible. Based on the chosen sample, a final product (or MVP) is created. Unlike a minimum viable

product, which is designed to serve real consumers, a prototype is created for inner use or to present UX and ID for investors.

The prototype may perform its idea in the form of sketches, wireframes, mockups, and physical or interactive models. There are plenty of ready-made prototyping tools: InVision, Sketch, Axure, Webflow etc.

> *"MVP is good enough and can be improved*
> *to be great one day" - Alex Iskold notes.*

The same can not be said about the prototype. It is impossible to develop any prototype into a product. All you may do with it is to take it as a sample.

How MVP principles help create the product

The MVP concept mitigates entrepreneurs' and investors' risks. The Lean Startup bestseller author described the minimum viable product concept as a tool of sustainable custom software development. However, he also gave an impetus to the conceptual innovations in marketing and manufacturing.

MVP principles in product design

Since the work with any MVP strategy requires the constant development of new product versions, each cycle includes

prototyping. Product design development has several stages: mockup and wireframes design, UI-optimization, and prototyping. At the first MVP implementation, product design is developed based on the team hypothesis. While preparing the following iterations, designers work with the data obtained from actual users of the previous product version. The task of an MVP design team is to strengthen the weak points of the product, remove unnecessary elements and facilitate the user flow by making product features clear.

MVP principles and Agile

Today, the Agile methodology cannot be imagined without an MVP component. Agile approach are aimed at improving the efficiency of software development through the work of small self-organized teams. In such units, communication is as simplified and comfortable as it could be. The units also use the iterative development method, which leads to a gradual improvement of the product without violating its integrity.

As a rule, Agile teams work on MVP if MVP development is fixed in their contracts. Each new iteration of the product, which occurs at the interval of several weeks, is created based on the user feedback. However, startups often opt for fixed-price contracts for MVP development, which means that there might not be anything "Agile" about the processes early on.

MVP and marketing

Each marketer knows that the more customer data you have, the better result you will perform advertising and selling the product. In order not to invest all funds at once in the large advertising campaign, marketing departments prefer to measure the potential response by using low-cost promotional MVPs. For example, before launching a worldwide advertising campaign, brands determine the response to its ideas within one region.

Another example of MVP in business outside the software world: to test the marketing hypothesis, product company may create a simple landing page under any site builder and pay for its contextual advertising. The idea of the site, in this case, is to Inform visitors that the company will soon present the product, offering them to leave their contact details to be the first who will check the product's features.

If you hit the bull's eye, marketing MVP will provide you with a contact database of those who are ready to use your product and to measure a future income. A similar task could be performed by demo videos. In general, studying the reaction to MVP is the direct task of any market department.

Successful minimum viable product examples

You are unlikely to find today at least one product that was released in all its glory and immediately became a market superstar. According

to Forbes, 9 and 10 startups fail after the first investment round. The MVP approach allows investors not to lose all their money and enthusiasm drawing amiss. Each product consists of an endless pursuit of perfection. However, there are very few examples of first MVP deafening success:

ETSY

In 2005, the idea of a crafts marketplace was tested on the eBay basis. With the help of MVP, the startup marketers identified the most popular product categories and studied the key handmade buyers' needs. That was how the development of an independent platform for handmade masterpieces sales begun. As a result, marketing emphasis was placed on the female audience and C2C sales. Today, 54 million people use ETSY.

Spotify

How did Spotify manage to get major music labels contracts in just a few months? The answer is convincing MVP feedback! In 2007, the MVP of the world famous streaming music service was launched for a closed group of Windows users. Having received the data of a considerable number of first customers, the Spotify founders could easily prove everybody that the service would bring a huge income. Their expectations were met. Today, the service receives a subscription fee from over 87 million people.

Airbnb

The history of the rental service operating without intermediaries is a classic example of how MVP was used at the time when the approach has not yet been so common. In 2008, Brian Chesky and Joe Gebbia created a simple site offering to rent their loft apartment in San Francisco. Its visitors had a chance to check photos of the apartment and book it for the desired period of time. The idea didn't come by chance: at that time a large design conference was supposed to be held in San Francisco. The idea had found a huge response and soon the startup MVP has grown into a worldwide service with 3,000 permanent workers. Add to this 150 million users, according to 2019 statistics!

Uber

Uber's philosophy has not changed since the launch of its MVP in 2009. The first version of the service allowed users to find the nearest taxi without calling the taxi service, and to pay for the trip without taking the wallet out of the pocket. Despite the fact that Uber has always had the form of an application, its basic set of functions did not include direct driver calls, client's geolocation sharing, and car category selection. The idea presented by Uber MVP turned out to be so revolutionary that it caused a series of strikes! Uber got the victory. The service is now available in 600 cities around the world.

✅ Conclusion

If you want to increase the chances of your business for long and profitable life — an MVP approach is exactly what you need. The MVP approach allows you to save money by abandoning unviable startup ideas. It also helps you to improve the product on time and to collect a customer database before the full launch. Although the MVP philosophy became popular due to the software development cases, it works equally well for physical products, design, and marketing.

How to Build a Minimum Viable Product (MVP)

Now you know what a MVP mean and see successful examples. We need to figure out how to build an MVP in detail.

Before Starting to Create an MVP, Make Sure, That Your Product Is Viable

The Lean Startup approach helps owners to spend their money and time smart. The tricky thing is that there are no limits for lean development and an MVP concept could be also tested before the implementation. Follow your tips to do so.

> *"First, choose the criteria of the livability of your product. Keep in mind that an MVP is a ready-to-use product even though it doesn't have advanced features."*

To define the core function of your MVP, try to think of the main problem that could be solved with its help. So what customer problem you are dealing with and what is your solution? Keep the solution bold within the MVP.

> *"Second, make sure that your product could be demanded. Use the focus group opinion or make your own market observing."*

Sometimes, we may have a great worthwhile idea that is likely to solve a real existing target group problem, but the fact is that the look-like solution has already been launched by your competitors. For example, there is a small chance that anybody could successfully

launch another all-covering social media platform like Facebook. You don't have to waste money on an MVP to learn this. For more examples check our article "What does MVP mean and why you need it?"

Finally, the focus group will help you to set a basic commercial goal and develop a monetization strategy.

Analyze Your Competitors. Indirect Also

How to build a minimum viable product? Start with competitive sector analysis.

An MVP will be thrown to the market where it will immediately interfere with the competitive environment. As we've mentioned above it is important to evaluate your target niche in order to check whether you aren't doubling an already existing product. But that is not all. Competitors analysis could help you to define and focus on the unique features of your product and turn them into core ones.

Example. Researching the social media field you'll soon figure out that there are some major players like Facebook, WhatsApp, Instagram and Twitter covering all interests of the diverse global audience. On the other hand, you may also find that there are no perfect social media platforms for those who would like to share reviews on books they had already read.

Direct competitors analysis also tends to give you a complete view

of what to expect from your product. Learn the growth rate of the top companies from the niche, study the monetization model common for your field and set realistic marketing goals. As a result, it will also help you to attract investors.

Remember, that to study MVP feedback you need to persuade the audience that your product deserves its attention in general.

Think of the best way to reach your target audience evaluating promotional tactics of your competitors. Don't forget that generation Z as well as the vast majority of internet users used to change their opinion every second creating a hype around a single product and completely forgetting it the next day. That gives you a chance to beat competitors fast.

Here is the list of competitor analysis steps:

- Identify direct, indirect and substitute competitors
- Learn: competitors products' features, pricing, branding features, positioning, and reputation
- Figure out competitors' strengths and weaknesses
- Shape the competitive advantage of your MVP

The last important thing is that not only direct competitors are those who may lure away your target audience. You main competitor could also be indirect and substitute. In order to identify them try to observe the customer's needs from the customer point of view. Ask yourself "What substitutive solution is available on the marker?".

Example. In 2019, Netflix with nearly 149 million subscribers admitted

that its main competitors are not video streaming platforms like Hulu or Amazon Prime Video (which are far behind if we compare the revenue rates) but entertainment tools such as YouTube and PlayStation.

Building an MVP Sales funnel

Job Need To Be Done (JTBD) approach could guide you through the user funnel stage. According to the concept, from the customers' perspective, any product is a tool to satisfy their needs. In other words, a customer just wants the job to be done and would like to spend on the solution less money and personal effort.

In that case, your task as an MVP creator is to link your product with an appropriate functional and emotional "job" and to compare if you propose the easiest way to make the job being done. If not — competitors will easily conquer you. If yes — move to user funnel development.

To get more downloads, sales and as the result early customers' feedback, you need to think of your **MVP sales funnel**. A sales funnel is a term that describes the road potential users follow to purchase or download your digital product or, if required, to complete any other key actions.

To build app MVP with a perfect user funnel, set your goal first. In the case of MVP it could be one of the following:

- Product download and permanent use
- In-app purchase
- Early reviews

You may also mix goals or set some of them at once building an MVP. If you've got several target actions, keep in mind that you will have several separated user funnels.

User funnel exists regardless of whether you lined it up specifically or not. But it is a good idea to plan it in advance and keep watching the funnel all the time, gaining additional feedback from those who didn't manage to leave a review or do the target action.

Generally, the user funnel consists of 4 stages called AIDA: Awareness, Interest, Decision, and Action.
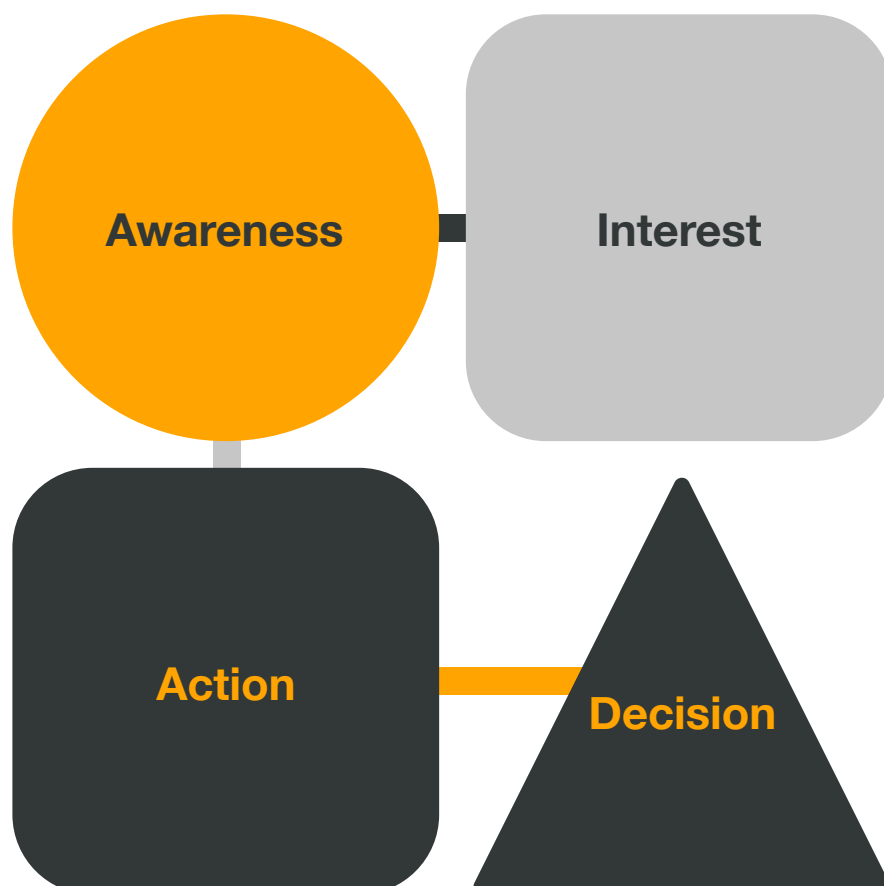
Let's describe them shortly:

Awareness

At this stage, you catch the potential user attention. You might use an advertisement, social networks or private communication to inform others about your solution.

Interest

Give your potential user reasons why he or she should use your product or follow your invitation to do a target action. Show how their life may change after this and establish your expertise.

Decision

Pick the right time to propose your product or service to the particular user. For example, if your goal is to make users download your app and then to sell them its paid premium version, set 10th-day offer reminder.

Action

At the bottom stage, users make a purchase or complete the target action. Well-supported, the stage will lead to customer retention in the future and help you to keep your finances better.

Customer Journey Map (CJM) is a visualization of an actual or potential end-to-end user experience. A CJM reflects user problems as well as touchpoints between your software and your customers, areas of your cooperation and finally shows how your funnel looks like through users' lens.

In fact, a Customer Journey Map may go further than just sales funnel. It gives you a complete overview of customer problem, his or her hesitations to use your product. CJM helps to understand secondary communication channels and even to define third-party influencers.

Find All Features and Prioritize Them

To start building an app MVP you need to know what exactly your future MVP will look like. The quality of any MVP depends on what function it performs and if they are really demanded by your target customers.

Following our advice, at this phase, you may already know what kind of audience you are going to have and what kind of needs you have to cover. Build user flow and user funnel and visualize it to make everything clear for all the team members.

The next step is to draft of customers' **pain and gain map**. Check the user flow by yourself looking at your future product from the customer's perspective and figure out why your customer could take each action and what sort of benefits they would get doing so. Make

your product better by simplifying hard points and adding something that was missed.

Good news! Now you are ready to hit an MVP development road. Using your draft, list all obligatory MVP features you need to implement and don't waste your time on avoidable things.

There you could find the list of the most common app features:

- User login
- Profile editing
- Push notifications
- Navigation
- Portrait and landscape view
- Media content downloading
- Geolocation
- Chats
- In-app purchases
- Payments integration

After having discerned what features you need, switch to prioritizing them. Put on the top the features that are directly connected to the startup overall goal. Other features leave for later releases that will warm up your customers' interest.

Then, create MVP roadmap for your team. Use prioritization matrix to define deadlines and divide tasks. If you did everything right, at this point you would have an MVP development working plan.
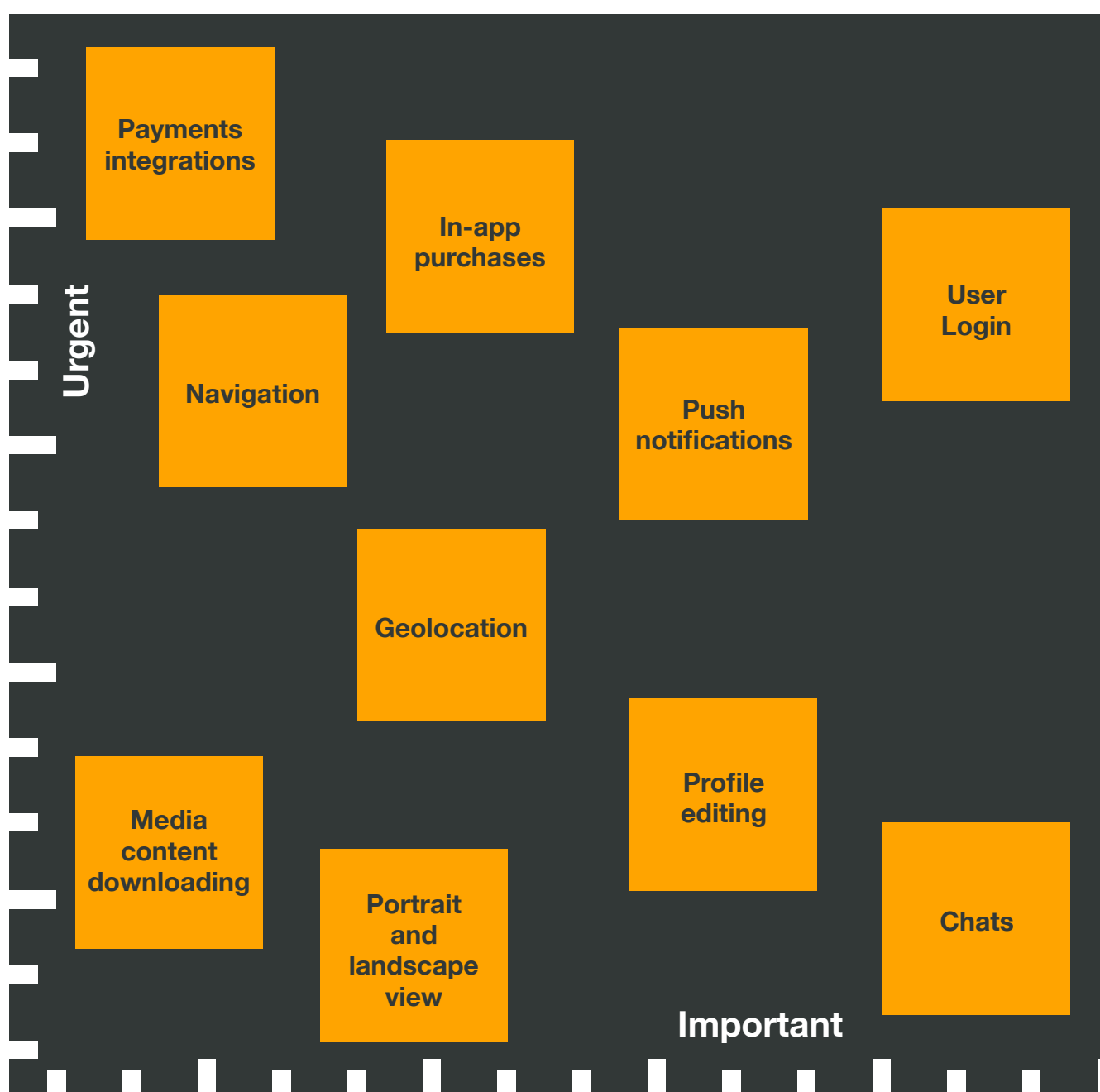
🔧 Build an MVP

An app MVP development has no differences from any other mobile app development services. Creating an MVP consists of 5 steps. Please note that the last step does not mean the end of MVPs development. Hypothesis testing cycles can be repeated indefinitely until you have the perfect product that completely satisfies both you and your customers. But don't we know that this is a utopia?

That is what the MVP production process looks like:

Stage 1. UX/UI

Use the user flow visualization to create a draft of app design. Keep in mind that it has to be simple, cheap in realization and perform key features and ideas only.

Stage 2. Prototyping

A prototype is sometimes confused with MVP. The difference between the two is that MVP is a finished product that you can offer to a real user, and a prototype is a sample that your programmer and the rest of the team will use to create an app. A prototype can be created using a graphical editor or a specialized prototyping tool.

Stage 3. Back-end development

Now you need to breathe life into your prototype. That could be done by a single programmer, and if you need to speed up the process, or you are targeting several platforms at once, you need a team of developers. As a result of this phase, you will have a ready application. But wait! Before you release it to the market, you need to test and improve it.

Stage 4. QA and testing

Pass your newborn product to Quality Assurance engineers. They will find bugs and make a list of edits. When the improvements are made (programmers do this), you can launch the product to the market. Take care of feedback collection tools and performance measurement options.

Stage 5. App launch and marketing

All is ready! Publish your MVP and monitor the feedback. Please note that by the time the application is launched, you will need to understand what your goal is and how you earn money on it. You also need to have a ready-made marketing plan for at least the next few weeks.

Mind, that MVP launch is only the beginning of your startup. After the launch, your task is to collect users' feedback and decide if your project deserves to be developed and if it does it that way.

MVP Development Process: Build, Learn and Build Again

As you may have guessed, MVPs are created in order to test the idea of a startup, having invested as little money in it as possible. To accomplish this task, you need to collect feedback. It generally determines how your project will develop further.

The most important and decisive stage in building an MVP app is measuring and learning.

After launching the MVP get ready to review every aspect of it. Use direct customers' feedback, information on how they interact with your product, and consider first marketing analytics. Try to find out what features your MVP was lacking and which of them stayed without user attention.

There are a few ways to evaluate an MVP. Mix them to get an even better result!

Direct feedbacks

Customers used to call and email your support team in order to solve problems they had faced with your app. Write down all you've heard about your product. It is also a good idea to let people fill in the feedback form. Make it simple but concrete and encourage customers with presents or promo codes.

Downloads, sign up and churn rate

Calculate how many users you've got in the first, second and third week after launch. The percentage of people who stopped using your app per day, week or month will also help you to find weak points of the product.

Engagement rate, active uses, and Client Lifetime Value

Figure out how many hours people usually spend using your software. Are they active? What do they exactly do within it? Measure the percentage of users who behaves actively. Divide users by the behavior model and decide what you have to do to increase the number of active ones. Also, analyze those who stopped to use your app. How much money did they spend on the product before uninstalling?

CAC (client acquisition cost) and ARPU (average revenue per user)

Check if your marketing strategy was successful or not by calculating how much money you've spent to get one user. In case you've launched commercial MVP and your monetization strategy involves that, count current average revenue per user and compare it with your goals.

General Recommendation for MVP Development

At first glance, it may seem that building an MVP of an app does not differ from developing a regular application, but it is not true. When you work with MVP, you have the flexibility that allows you to adapt the product to the real needs of potential customers, even if you made some gross mistakes at the planning phase.

Our tips will help you to simplify the work on MVP if you have not yet encountered such tasks, as well as improve the efficiency of product development.

Use checklists! It improves the structure of work and speeds up the process

Even before you begin to compare your idea with the needs of a potential client and list necessary app features, make a general work checklist, share the primary tasks among team members and specify the immediate tasks in order not to miss anything.

Risky hypotheses are MVP fuel

If you know what result you will get then it means you are not doing anything new. Remember that the MVP approach is designed to reduce the risks of failure and test ideas for ultra-profitability. Create MVP based on crazy ideas. MVP does not exist for instant profit, but for knowledge and experience.

MVP does not exclude focus groups or A / B testing

MVP is a real product. If you want it to shine spend time on making it better. The best is the enemy of the good, but that does not mean that you can market a raw product. At the stage of approving the UX / UI concepts, assemble a focus group. If its opinion is ambiguous, run two MVPs in parallel.

Do not mess with security

It's one thing if customers don't have the needs that you planned to satisfy, and therefore don't use your application, and it's quite another if they planned to satisfy their real needs and trusted you, but you couldn't their trust. An MVP can be simplified in everything except the security of a person's personal data.

MVP is an endless process

The method of testing hypotheses using MVP is good because you can apply it both to the whole product and to the idea or even a single feature. When you have learned your first MVP users feedback, start working on the app features MVPs. For example, if real experience has shown that your application requires chats, start with text chat, not video calls.

Mobile app MVP is not necessarily an app

Remember that your task is to test the hypothesis. Perhaps your

product can be vitalized with much simpler and cheaper tools? If you want to launch a trendy fashion magazine, start with the Facebook community. If you want to launch a dog walking service, start with a one-page site and a contact number.

Building MVP app may sometimes be a time-consuming task but in any case, do not hesitate. The strength of MVP lies in the fact that you spend a minimum of effort on it, getting maximum useful information about the viability of your idea. If you stretch the MVP development process, a competitor can release its analog faster!

Conclusion

MVP is a brilliant tool for startups. MVP development process and an MVP itself allow you to check the viability of ideas, plan your business with minimal risk, win the love of target customers before the full product release, and more. But be that as it may, MVP applications and a full-fledged application are two different things.

MVP is an approach, not only a product; the result of working on MVP is the knowledge you gain. Use the tool to check your most insane ideas in the search for a gold mine, but do not forget that there are issues in which you can not compromise. Your product must be of high quality, safe and fulfill its key functions brilliantly. In other words, the MVP should be convenient and promising from the beginning. If you succeed, your users will look forward to the development of the project and you'll easily win an investors' support.

Web, Native and Cross-Platform Apps: What's the Difference?
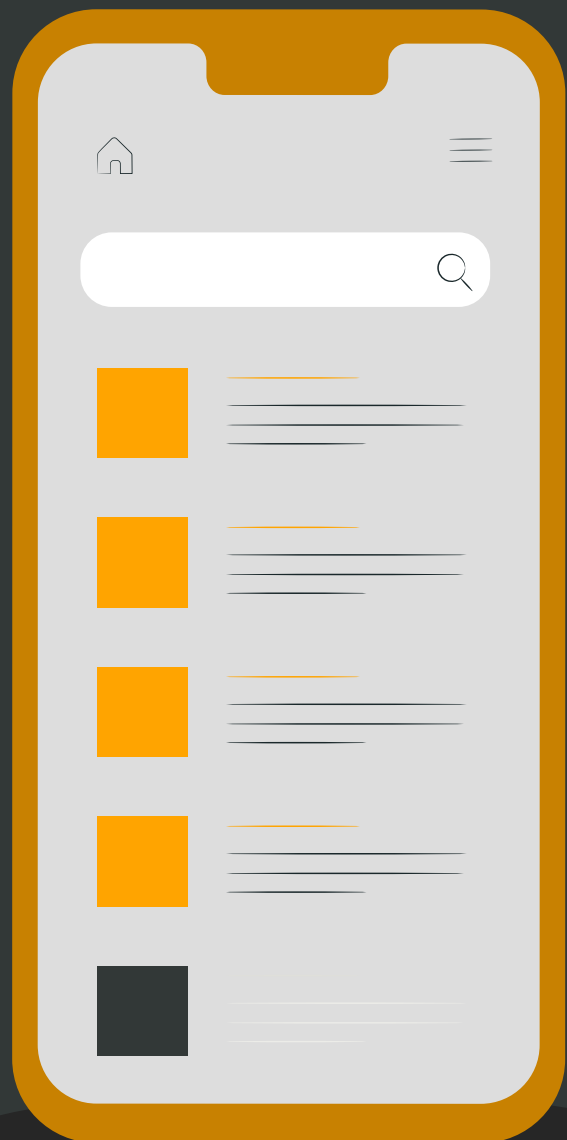
We have to decide what way to choose in order to create the application. Mobile app development has been on the rise for a recent couple of years with even small businesses trying to attain new clients through features offered in their smartphones. Many people prefer shopping online or receiving services on the fly, and mobile apps facilitate and accelerate the consumer decision journey.

However, there are differences in the way the mobile app can be developed that may affect its functionality and potential. Based on your business goals and expectations from the mobile app, the decision what application – a web app, native app or cross-platform app – is better to build can largely affect your performance management. In this article, we are going into details about the main features of each app type. Considering these factors, you will gain insight into which type fits your business objectives better.

What is mobile web app

Web apps depend on web browsers since they are hosted on the webpages. Users do not need to download the app to a mobile device to access it, which means that users interact with this app through a web view, regardless of the operating system they use. It does not take much time and efforts to build such an app for an expert, and, most importantly, it's cost-effective and easy to maintain.

However, HTML apps are limited in their functionality since they largely rely on a web browser and Internet connection, have a lower speed and cannot use the majority of mobile device utilities. Thus,

they provide poor user experience and are considered outdated, less intuitive and interactive.

🏠 What is native app

A native application is a mobile app tailored to a specific platform and written in languages only this platform maintains and accepts (for example, the iOS system accepts Swift and Objective-C, while Android understands Java and Kotlin). Each of the platforms has its own set of software development tools because all newly created apps should fit a particular software framework, hardware and operating system to be able to function on tablets and smartphones. In other words, the native app development process implies apps that are "native" to particular platforms and cannot be shared with third-party platforms.

There are many advantages of native apps development. They ensure maximum compliance with the platform which makes their performance fast and smooth. App Store or Play Market, pre-installed on each device, can provide timely and effective professional support for application performance since they recognize their tools and SDK.

Thus, users receive full compliance and impeccable functioning combined with balanced UI/UX experience. These apps perfectly comply with device capabilities, including cameras, GPS and microphones. However, there are also disadvantages that push developers to choose between native apps vs mobile apps of other types. Native app development requires comparatively high costs and extended development time.

What is cross-platform app

In the case of mobile apps development, the final product can fit with multiple platforms. There is no need to develop and maintain a different application for iOS and Android. There are different languages for cross-platform app dev, depending on the kind of app, development team, and specific requirements.

You need to find the language that suits your application best, should it be C#, C++, HTML5, JavaScript or Ruby on Rails, Unity and many others. Since different platforms accept them, these apps are weaker in terms of their quality and functionality because they cannot seamlessly integrate into each platform. These issues can affect user experience and app performance.

For businesses, such a mobile app development type requires lower costs and takes less time to design a cross-platform app as compared to a native app. In case of a cross-platform app, its release comes faster as compared to a native app. However, a failure to integrate into the platform correctly may lead to the necessity of rewriting the application.

Especially, if this malfunction violates the agreement with store account requirements(for example, failing to pay fees, providing outdated or incorrect info, interfering with Store account by other third-parties, etc) or results in app ranking drops (only the App Store decides how to rate your app in catalog so that you cannot manipulate rankings or comment sections).

Three types of cross-platform apps: hybrid, compiled to native, PWA

To avoid limitations introduced by mobile web apps and native apps, software developers came up with three different types of cross-platform apps. They are designed to provide standardized applications that would work equally good on different platforms. Thus, the first attempt was to combine web apps and native apps which resulted in the development of hybrid apps.

However, such a combination turned out to be less appealing to the end user than native apps, which required more time and costs. To avoid this issue, some functions of native apps, namely a code accepted by each platform individually, were added to hybrid apps, and this led to the creation of a new subtype - compiled to native apps. It added to positive user experience but still left some critical problems, such as debugging and maintenance complexity. PWAs (Progressive Web Apps) are the third subtype of cross-platform apps that incorporated some features of the web and native apps.

The comparison of native vs. web apps allowed creating webpages with some characteristics of mobile applications. In the end, they received limited functionality which was limited to native features of browsers pre-installed on mobile devices.

What is hybrid app

Hybrid apps are a subtype of cross-platform apps that is a combination of native apps and web apps. When it gets hard to choose what features your app needs more – web app vs native app – hybrid apps are invaluable. They logically incorporate the best features of both types, consisting of two parts: the back-end core and a native shell. Hybrid apps development usually relies on such technologies and languages as HTML, CSS, JavaScript, Apache's Cordova, Angular, React, Vue, Ionic, etc.

Hybrid apps have limited possibilities and are more difficult to maintain. They require a good Internet connection all the time of their use and do not run offline. Hybrid app development is less expensive as compared to native apps and does not require a browser. It can boast with a high speed but still has a reputation of poor user experience. However, if we still compare native vs hybrid app, the first one runs faster, while the second cannot be customized to specific platforms.

What is compiled to native app

The hybrid type may not be the best when it comes to making a very performant application. If you still prefer injecting your application with the functionality of native app but want to ensure it runs on all platforms, it's better to use a compiled to a native type. It incorporates the best features of native and hybrid apps, minimizing

their disadvantages and adding to their functionality.

Thus, if you want to get an app that fits all platforms and has excellent user experience and flexibility, choose a compiled to a native app using React Native and NativeScript. The logic is simple: all apps components, the UI and API logic are written in a JavaScript-like language and compiled to code native to Android or iOS.

Compiled to native apps have a high speed that can be compared to the speed of native apps and low development costs. They fit all platforms and, in general, are much better than hybrid applications. Also, their maintenance is more straightforward than hybrid apps since native development works upon common practices, standards and guides, and takes less time for debugging. However, they do not support native API and SDK, while requiring time-consuming and complicated native development.

What is PWA

PWA stands for progressive web applications. You must have noticed them when visiting a website with a banner at the bottom asking you to access an app by tapping its icon on your Home screen. In fact, it's a typical website that is hosted on a server and has its URL.

It's not distributed through the app stores like all other subtypes discussed above. Instead, they can be found on the web pages. PWAs utilize a Service Workers technology that allows accessing the website even offline. After you visit the page of an application, your

browser cache stores the necessary data and saves it as an icon or a bookmark on your devices' home screen.

PWAs have both pros and cons as well. They offer high speed and require low-cost development. They fit all platforms but require a browser to function. However, they cannot be counted as proper applications since PWAs have all the characteristics of a website. Thus, they require a stable Internet connection at least for its first upload. Such features as a camera, audio recording and video are not possible to add to this application because PWAs maintain only those capabilities which are native to mobile browsers. They offer limited access in the store and often have a poor user experience.

Cross-platform apps

In the following table, we have collected and outlined the essential parameters and technologies that can help you in selecting your ideal type of mobile app. To simplify the table, we focused our analysis on all subtypes of cross-platform apps as compared to the native apps. Each of these criteria may have a tremendous impact on your mobile software development strategy, so it's utterly important to evaluate their effect on your clientele and target audience.

Parameters	Technologies			
	Native	**Compiled**	**Hybrid**	**PWA**
Code Reusability	Using of already written code to incorporate new features into the existing class of data			
	Write twice	Moderate	High	High
Knowledge Reusability	It's simply about how to identify, store, apply, evaluate and manage knowledge			
	Learn twice	High	High	High
Pre-styled Components	Exploiting CSS (Cascading Style Sheets) libraries and frameworks to optimize work for developers and improve the user experience			
	High	Low to Moderate	High	High
Third-Party Libraries	Using third-party libraries by copying the software components into your application directory			
	High	Low	Moderate	High
Popularity	Defines the success of the application measured by a number of, downloads, ratings, positive feedback, sales rank etc.			
	High	Moderate	Moderate	Moderate
Performance	It characterizes how fast, stable and bug-free the product is			
	High	Moderate	Low	Low
Native device features	Accessing internal device features, including cameras, geolocation, contacts etc., to make the experience more interactive			
	High	Moderate	Low	Very Low
Distribution	Ways of distribution to multiple users, its offline operation and the necessity to download it to the mobile device's home screen			
	App Stores	App Stores	App Stores	URL
Device Support	Availability of professional and effective support for application performance provided by the app store on each platform			
	Exhaustive	Limited	Moderate	Limited

Conclusion

Mobile apps development is a promising field that will face a measurable advancement in the following years. However, nowadays, opportunities to create a perfect application that would function smoothly and integrate with every customer are limited. The choice is between cost- and time effectiveness and quality.

If you fall to the group that values quality, your application should be native and provide an impeccable user experience to people using either iOS devices or Android ones. If you care about your finances and want to release the app as soon as possible, you need to consider one of the cross-platform options. Given the comparison of these subtypes, the optimum between the quality and flexibility is reached in the compiled to native apps.

Android vs iOS: Which Platform to Build Your App for First Is Better?

You have chosen the type of the application. In this case, the next step is iOS or Android. The choice between iOS and Android app development is one of the most critical you need to make before planning your digital startup. iOS and Android both are leading operating systems that match software and hardware components of mobile devices.

The final choice will affect project timelines, budget, and your chances to get the revenue out of your idea. Basically, several factors may influence your decision. Required features, revenue goals, target audience, deadlines, and budget are among them. Here, we'll sum up iOS vs Android development debates.

iOS vs Android App Development: Everything Depends on Your Audience

You may already know that Android is a leader in the mobile operating systems market share. In 2019, it overcomes iOS three times. According to the latest statistics (January 2018—January 2019), Android made up 74.45%, while iOS gained only 22.85% of the market. And only 2% were left for other systems like Windows for mobile devices (0.3%) or Samsung OS (0.28%).

Mobile OS market share, 2019

OS	Share
Android	74.2%
iOS	23.3%
KaiOS	1%
Unknown	0.4%
Windows	0.3%
Samsung	0.3%
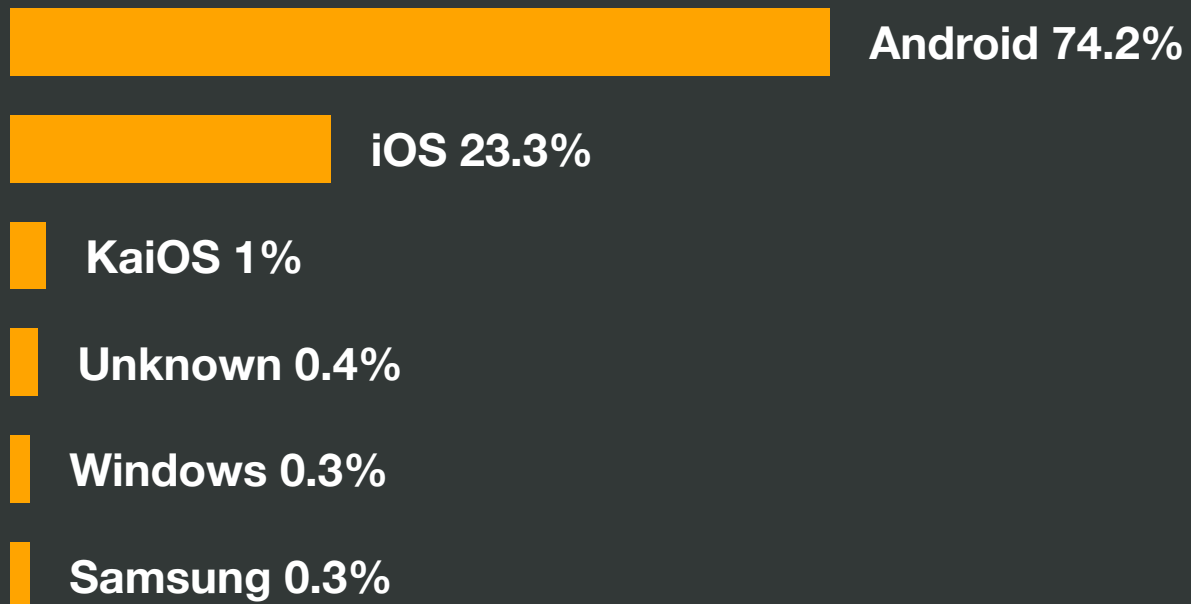
But don't hurry up deciding if iOS or Android development is better — those systems have different usage statistics. In some geographic areas and demographic sectors, iOS is a leader.

There is also a significant gap between iOS and Android apps shared revenue. According to Apple and Google reports, App Store generates more compared to Google Play Market. Compare $12 billion gained by App Store in the third quarter of 2018 to $6.2 billion generated by Play Market. No wonders, Apple audience is generally richer — the average annual income of the person with the iPhone is $53,231, while Android users have an average annual income of $37,040.

LANARS

So what is better for your marketing goals — Android and iOS development?

Android App Development: for Up-And-Coming Markets

To build a successful startup you need to know what your target user looks like (age, income level, family status, place of living, and preferable devices). Android holds the largest market sector, its audience lives mainly in developing countries and has lower salaries. Those people spend less money on paid digital products and usually are younger than iOS users.

There some key Android users' characteristics. Consider thinking of Android vs iOS app development:

- Android users more often have a high school diploma only
- Most common Android user is 34 or younger
- 12% of Android people are more likely to have an introvert type of personality
- Most of them have never traveled abroad (71%)
- Major occupation areas — IT, Energy, technical jobs, and public utilities
- Android user median annual income is $37,040

Android is also a good idea for global and up-and-coming markets such as Latin America, Asia, and Africa, where there are more users with small incomes.

That is also important that Play Market — the platform where your

app will be mainly downloaded from — is more competitive than App Store. That means that you'll spend more money on app promotion and maintenance if you choose Android. And if you plan to create extremely demanding products, consider Google Play most popular categories such as communication, media editing, traveling, entertaining, and productivity.

iOS and Android Leading regions, 2019
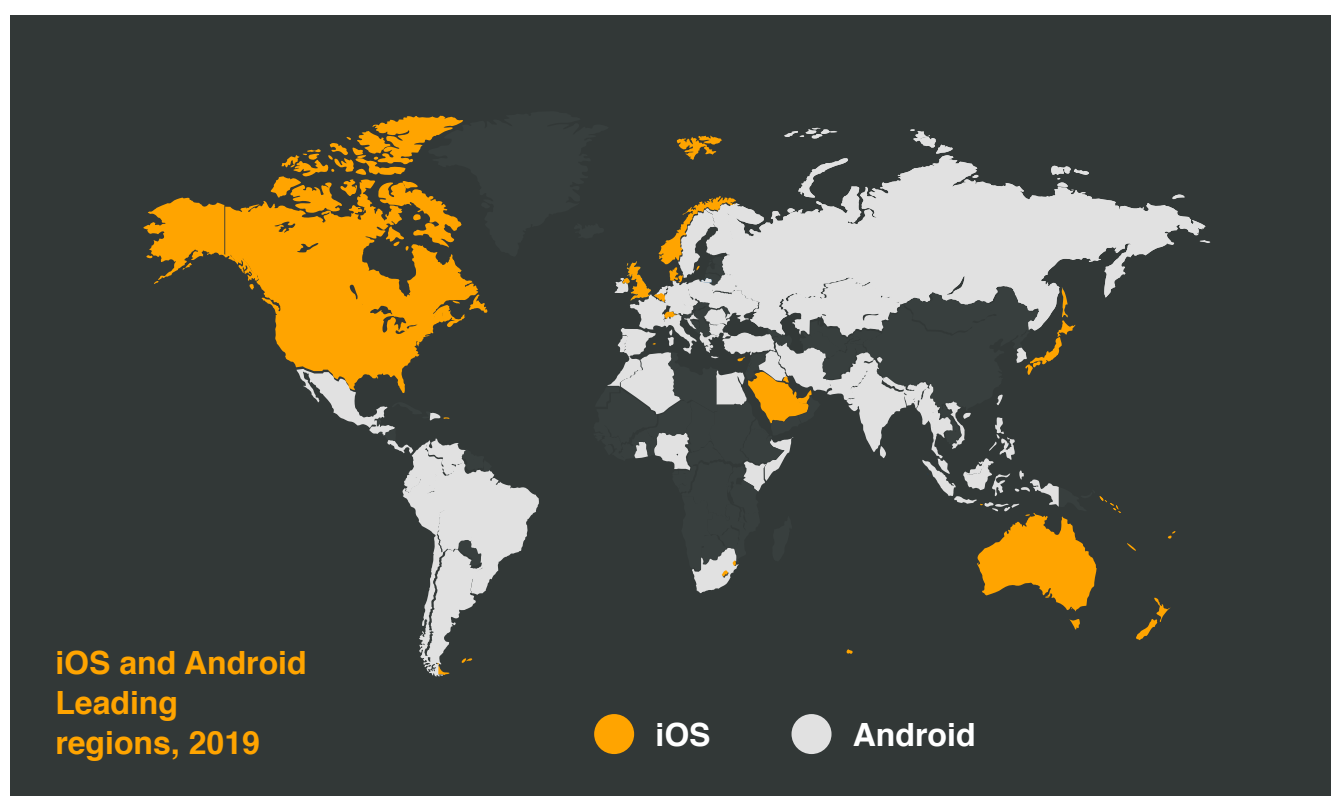
● iOS   ● Android

iOS App Development: for Western Europe and North America

Who is a winner of iOS developer vs Android developer battle? As we said, everything depends on your target audience and monetization strategy. If your idea is to get the revenue out of ads inside the app, you probably need Android, and if you'd like to create a paid app or incorporate in-app purchasing feature — choose iOS.

Here are some arguments. First of all, iOS users earn 40% more than Android ones. Second, they are generally more easy to sell your product to. Let's look on some most common iOS users characteristics closer:

- iOS average user is younger than Android one — most gadget holders aged from 18 to 24 years use iOS
- iOS has more women among users than Android, and 27% of them are 35 years old and elder
- 37% of all iOS lovers have a university degree
- Every second person with the iPhone has visited more than 5 countries
- iOS audience has the best device engagement rate among other OS users
- iOS user median annual income is $53,251
- They work in marketing or media areas or run their business

What are the best regional markets to develop iOS apps? The OS is a leader in North America, Australia, and Western Europe. And most popular App Store categories are games, business, education, and lifestyle. However, they are also the most competitive.

Pros and Cons of iOS App Development

Android development vs iOS development is a long-lasting global competition that is not going to end within the nearest years. As you saw above, iOS devices users are believed to be wealthy and ready for online purchases. However, Apple's audience is not that large as

the Android one and is concentrated in well-developed countries with a high quality of life.

Android or iOS development is not only about your target audience. Depending on features you'd like to have in your app, your business goals, and development timelines you may choose one or another platform. Here the main iOS pros:

— *Faster and less costly development*

iOS development software and hardware were exclusively developed by Apple. Following simple Apple guidelines, iOS developers can create an app faster than Android specialists. There is also only a limited number of Apple mobile devices (20) — so designers and developers should adapt your product for fewer screen parameters. iOS app development takes 40% less time than the one for Android. Apple uses Swift programming language which is less complex than Java.

— *Higher security level and capabilities*

iOS is suitable for financial startups and other businesses working with clients' data. The platform is also automatically protected from piracy. An iOS app is also more responsive than Android ones.

— *Pre-crafted solutions*

iOS development is better for those who have limited resources.

Developers can use ready interface models, frameworks, and functional modules to create a new app. There is also an iOS support line for developers as Apple generally appreciate their work.

iOS/Android app development has its specific features. If you plan to start with an MVP on just a single platform, remember that iOS also has some critical disadvantages:

— *Limited customization*

You can't build anything on the iOS platform as it has too many restrictive guidelines and limited development tools set. Some of the ready-made frameworks need to be purchased.

— *App Store rules and quality expectations*

Usually, it takes up to 5 days for an app to pass App Store regulations. And there is also some risk that your product will not fit into Apple rules and standards. In that case, you'll have to rebuild it. At the same time, Android is an open platform with a lack of standardization so its rules are not so strict.

Pros and Cons of Android App Development

Android developer vs iOS developer — who will win the debates? The problem is that there is no single leader in the competition. Android

gives you access to a huge audience while iOS is cheap and means a faster development process. Let us sum up some key Android advantages and compare them to iOS specifics:

— Android dominates the global market

The platforms work well if your product could be useful for people around the world. It is also a good idea if you plan to build an MVP and launch a marketing campaign in different regions — Android will help you to cover diverse audiences, study people's tastes, and behavior and then to infest in the promotional events on perspective markets only.

Consider that Android is the number one platform in some well-developed countries only — for example in Canada and the UK.

— Platform flexibility

iOS/Android developers have different software engineering opportunities. Android has open licensing that's why Android developers can use crowd-created frameworks and plugins, play around with functionality, and customize UX and UI endlessly as well as share their discoveries with others.

Deciding if you'd like to develop apps for Android and iOS, keep in mind your budget and commercial goals. Although Android has great monetization potential, it seems to be expensive. Here you'll find the major disadvantages of it:

— Unexpected user experience

There are more than 24,000 types of Android devices in the world, while there are only 20 of iOS mobile gadgets. Sometimes, it can be impossible to predict what kind of UX will be performed on some rare Android phones or tablets. You may lose a part of your audience without proper UI and UX optimization.

— Every second Android user doesn't update their OS

If a user doesn't update the operating system on their device, developers have to adapt their product to OS types with different capability levels and software algorithms. That makes it harder to create a good-working modern product without losing the audience with old gadgets.

— Expensive and long-lasting development

To develop an Android app you need skilled developers and designers, an advanced QA team, and patience. Android is a fragmented platform with lots of pitfalls. At the same time, your product has more chances to be published earlier if it was built for Android.

Android vs iPhone development — Monetizing Your App

In most cases, potential profits are the main reason why you'd like to develop a new app. Although there are other cases such as White Label monetization strategy or building a product as a viral promotional instrument for the brand, here, we'd like to analyze which monetization model is better for Android and iOS apps.

But first a warning — both Android and iOS app can be the source of income within any app monetization strategy. To find a suitable solution you must take into consideration all sets of factors including desired features and target audience characteristics.
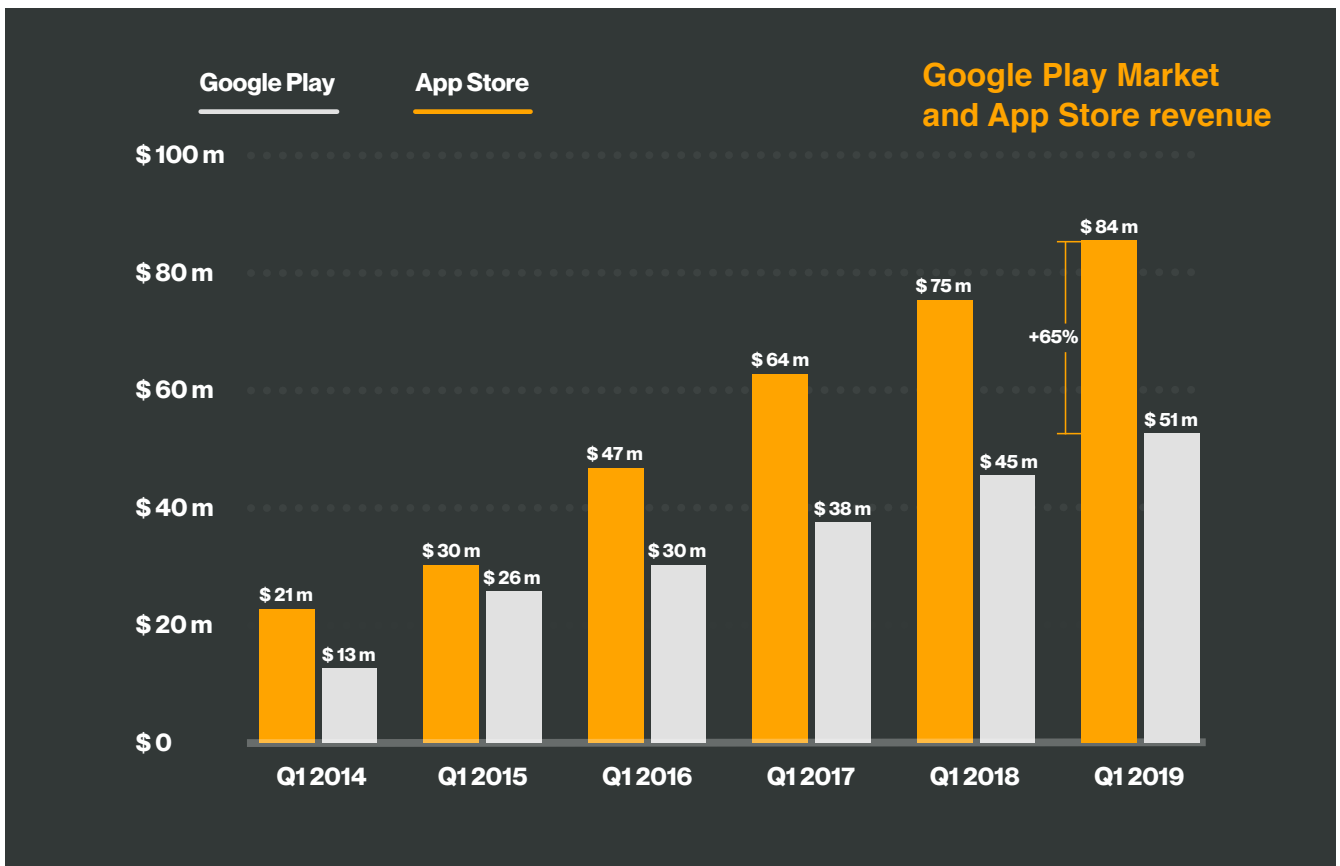
And here, lets us tell you what fits Android and iOS better:

Android

best model — Freemium, in-app advertisement

Android audience is not willing to pay for apps or make in-app purchases — it is accustomed to free solutions and fills generally OK with various ads inside your app. That is a good idea to propose users to get rid of ads paying for the Premium app version, however, you shouldn't expect more than 1% to do so. Advertisement Software Development Kits (ad SDK) are also better on the Android market.

iOS

best model — paid apps, in-app purchases

iOS apps generate great revenue for their owners. Apple users are willing to pay for the app or some app features twice more often than Android devices users. Also, they spend more than Android fans inside their favorite apps in general.

Shopping apps, paid apps with exclusive features, or paid subscriptions are good ideas for your iOS-based startup concept. 11% of App Store apps are paid and the area is not that competitive as on Play Market. So, in terms of direct sales revenue, in the Android vs iOS programming competition the second one wins.

Cross-platform App Development: Another Option

How to develop apps for Android and iOS at the same time? Cross-platform development could be a solution you are looking for. Multi-platform apps can ensure a wide range of users regardless of what devices they use and where they live. Those apps are good for testing your idea, searching for your target audience, or just studying different types of user behavior. The cross-platform approach is also popular among inhouse development teams.

Cross-platform app top development tools in 2019

Cross-platform app development helps you to create two or more apps with the same functionality adapted for different platforms (Android, iOS, or Windows mainly). The approach is cost-effective and less time-consuming as native app development because developers can reuse the code and avoid repeating the same programming actions.

The idea of multi-platform development is to create a flexible programming code (for example, in HTML5 programming language)

and then use ready-made tools and frameworks to adapt it for a particular platform. In 2020, cross-platform apps are easy to build, publish, and fix. Special frameworks can automatically translate basic programing language into acceptable by your target platform. Examples — Adobe PhoneGap and Appcelerator.

There are also some disadvantages of cross-platform apps. They provide users with poorer UX and UI experience and may have slower performance.

Android vs iOS Development 2020: Making the Final Decision

So which platform better fits into your business goals? From a commercial standpoint, you need to choose the platform where it is easier to get the revenue out of direct relations with users.

"iOS audience has larger annual income, spend money on online purchases more often, and is accustomed to subscription fees or paid apps."

At the same time, iOS is not so spread as Android. There are only a few regions where it is a leading platform — the US, Australia, and a couple of Western Europe countries.

As you may assume, Android / iOS development is a question of your target audience. If you plan to reach North America or Western Europe users, choose iOS, and if you need other markets — keep working with Android.

Take into consideration, that Android development takes more time. However, Apple App Store has lots of standards your app needs to meet to be published. Fixing bags may also take time.

Multi-platform development is a good choice for those who'd like to test their MVP and decide what platform is more preferable and what kind of users is more loyal. In 2020, this development approach works even better than before — cross-platform apps are easy to create, improve, and promote.

How much does it cost to make an app? Build an App Guide

In 2020, if you dream of a successful sustainable business, you need to look for your customers in App Store and Play Market. There are already one billion smartphone users across the world, and most of them spend 3 hours per day in contact with their devices. Almost all of this time they are using mobile apps.

The majority of all successful applications covers the following areas: games, education, healthy lifestyle, communication, and business management. We will provide you with some basic notes on how much the apps' development costs, what affects the budget and what can help you reduce it.

Who can make an app by my app idea?

There are several ways of creating an app but it is certain that most of people might have great expertise in their field of business and not have enough technical or marketing skills to launch an app themselves. To build an app you need teammates performing expertise in branding, software development, business planning, marketing, and management. You have the following options to have the work done:

Outsourcing. 72% of global companies use outsourced labor when it comes to IT needs. The main reason: outsourcing development costs two and three times less than an In-House one. Outsourcing means that you assign the development tasks to a third-party team. You don't control each of its stages, but the project manager does. As a result, you get a ready-to-use application and pay for it.

Outstaffing. Another form of remote collaboration is hiring employees for a certain time period from another company. In this case, you set tasks for hired experts and control their progress by yourself. Usually, you pay your teammates a full-time salary. Also, you are the one who is responsible for the final result.

In-House. It is cheaper to keep this development style if your company has a constant need for experts in certain IT areas including design, software engineering, and QA management. The In-House concept assumes that there is an IT department in the structure of your company. In fact it the way to make your mobile app development cost higher but to get a full control of the process.

Freelance workers. It will work for you if you have a clear idea of who is exactly needed to implement your app idea. In that case, you'll also need extra time to stay in constant contact with your fragmented team. Freelance workers perform their duties remotely and rarely meet each other. The advantage of this approach is the ability to negotiate with each employee on individual terms and save costs. By hiring freelancers you can also get a team with expertise in some rare field.

Development team budget

It is not a secret that the app's success mostly depends on the team professional level. Future app's features, timelines, and the chosen platform define if you need 5 or 100 employees to develop it. Their hourly rate also may vary. Here, we described the main types of team

Note: for making an app, your stable team must have at least 4 employees (PM, Programmer, UI and UX designer, and QA). The most productive units usually consist of 10 people, 3 of whom are software developers.

Visionaries

$40—70 per hour (here and further the middle Eastern Europe rate was given)

Visionary functions may be performed by Project Manager, Business Consultant, Business Analyst, and Strategist. The task of the team member is to stick to the ideal form of a mobile application, assign responsibilities, and control the development process in general.

Designers

$35—77 per hour

Visionary functions may be performed by Project Manager, Business Consultant, Business Analyst, and Strategist. The task of the team member is to stick to the ideal form of a mobile application, assign responsibilities, and control the development process in general.

Developers

$25—70 per hour

Mobile application developers actually build an application. Their work begins where the work of UI/UX specialists ends. With layouts at hand, developers and Data Modelers create applications in the

programming language relevant for the project: Java or Kotlin for Android, Objective-C or Swift for iOS, C # for Windows Phone, etc. If you plan to launch a cross-platform app, your project requires developers who work with HTML, CSS or JS. Another cross-platform type is compiled to native app developed with React Native or Native Script and Java (Kotlin) or Swift (Objective-C).

Quality Assurance experts

$30—63 per hour

Before the launch day, you need to make sure that your app works perfectly. QA specialists will help you to cope with the task. QAs conduct testing and return the product for revision if something works incorrectly.

Marketers

$10—70 per hour

Marketer are responsible for target audience reaching. If you plan to create a Freemium or any other commercial app, marketing department shall develop a strategy for making a profit from in-built advertising or in-app purchases. The department may also include Copywriter, Designer, Brand Manager, Database Analyst, and Infrastructure Analyst.

In any case, the number of your team members depends on your product. For example, the development of native applications will take more time comparing with cross-platform apps' development.

Another general rule is: the more features you want, the more people you need to implement them.

App development cost and maintenance: native or cross-platform app?

Most people use Apple's iOS and Google's Android. The iOS audience is more solvent, while the Android audience is wider. Also, the popularity of operating systems varies by country. If you want to get customers in a particular region, you need to check which platform dominates the regional market.

In addition, there are applications suitable for both platforms. They are called cross-platform apps. Let's define the strengths and weaknesses of each type.

Native apps
iOS (iPhone apps) — Objective C and Swift
Android apps — Java for Android and Kotlin

Example — Gmail, PayPal, Google Maps, LinkedIn, Twitter, Telegram, PokemonGo

Applications of this type are developed individually for the platform you need. This development takes more time and money. Resources need to be doubled if you need native applications for iOS and Android at once. Android app development usually costs from 10% to 15% more.

There are following advantages of Native apps: visual showiness, flexibility and, as a rule, extra convenience. The application can use your camera, GPS and other systems.

By opting for native app development, you've got a chance to create an appealing product with well-developed UX and UI design. Naturally, users will prefer good-looking and convenient application while having an alternative. Native apps also allow you to implement a wide range of features and deliver your services in the best way.

An additional advantage of Native apps is a strong iOS or Android technical support. Use effective ready-made solutions in the field of animation, adapt your app to the capabilities of special gadgets and strive for higher revenue.

Native apps also work quicker so in most of the cases, they are worth spent money (video editing apps, games).

Cross-platform apps

HTML and CSS

Example — Novarum Reader, Survey Solutions, Storyo, Baskin Robbin

Most applications of this type are limited to iOS and Android use. Their languages follow the web standards and therefore are universal.

Of course, the app will not look the same on different devices, but at the same time, you'll have a chance to customize the app view for

different platforms. Here lies the main drawback as a cross-platform app is significantly limited in visual and functional features and is deeply standardized. Comparing to Native apps cross-platform one may look simplified and boring.

The advantage of Cross-platform apps is a chance to save up to 80% of your development budget. Cross-platform apps development does not require the knowledge of the highly specialized language, so the labor market in this area is wider while the hourly rate is lower. Another advantage is the opportunity to reach a wide audience.

How much does it cost to design an app?

The more dazzling your design is the more users you will attract with your app. Design affects traffic, conversion, and ROI because it affects people's involvement and the ability of the product to be recognizable.

Design goes deeper than the visual shell of a mobile application, so a complex app with a minimalist design could cost investors more than a simple app with breathtaking animation.

Generally, making an app means that you have to think of some design key points:

- **The complexity of the app architecture requires designer ingenuity.**
- **Large app and Database increase the number of unique screens.**

- Allegally, the design piece of work becomes harder if you need to implement special features such as Social logins, Camera registration, Location registration services, Chats, Calendar, etc.
- Content Management System complexity raises pricing.
- Native approach usually means that designers prepare 2 application concepts. Android design can be a bit more challenging since there are over 18,000 Android devices in the world.
- In-House or Outsourcing preference will determine how much you'll need to pay to your workers.

However, it is impossible to estimate the project design soon after getting acquainted with the app idea. Usually, an accurate budget estimate occurs after decomposition. At this stage, the designer receives the task, thinks of the workflow, get its approvement and then calls the price.

Cost by key mobile app features

A simple Android app requires from 100 to 300 working hours and the iOS app development will need over 350 hours. That means that the minimum startup's budget ranges from $8,000 to $20,000 in case your app will be developed in India (the cheapest country for software development in the world).

User login

20—50 hours

Users may register via email account, social networks or use a personal password. The less information the user needs to fill in by himself, the better the conversion is.

Push notifications

20—200 hours

Almost every application has this feature. Notifications help marketers to keep user's attention or to focus it on special offers. In social networking applications, notifications report on the activity of other users, but in all others, they serve as a means of communication between the app team and the user.

Navigation

10—30 hours

Here, we are talking about UI architecture. It is not enough to build an app's structure to make the application convenient. You also need to discover the appropriate user flow and to match features and screens. Navigation includes menu, gestures development (scrolling, swiping), action buttons, etc.

Portrait / Landscape view

from 20 hours

The app will be more convenient if the user has the ability to change the orientation of the picture he is looking at. Thus, you can focus the user's attention on key elements and transform some functions (for example, video watching). The feature is essential for games and video based apps.

Media content

from 20 hours

Each application has its own media content: pictures, video, and audio. Also, communication applications usually provide users with the opportunity to share audio recordings and visual content with each other.

Geolocation

from 30 hours

There are several categories of apps that need a geo-tracking feature. HoReCa, transportation, and travel are among them. Depending on how you will use this feature, the development takes a different piece of time. For example, tracking multiple dynamic points on the screen will cost more than just map downloading.

Ads

15—30 hours

You need ads feature if you plan to benefit from in-app advertising. However, the task seems quite simple as there are a lot of services

that integrate advertising into your app without any extra effort from your side (Google AdMob, InMobi, Tapjoy, and Flurry). In case you need a custom feature, mind that the task is quite challenging.

Chat / Messaging
from 80 hours

Communication apps need chats. And if you plan to launch an instant messenger, most likely you will need a whole range of content exchanging types, including streaming video and audio messaging. If your application is not about direct communication, leave everything except texting feature. Do not forget that chats require a notification system.

In-app purchases
from 20 hours

If your application is a commercial product based on the In-App purchases monetization feature, you need to develop some purchasing tools. The feature is about the opportunity to review your products, browse them, or select the desired service, pay for them online.

Payments integration
from 30 hours

Having a product listing in your app does not mean that your client can pay you with a smartphone. It is better to add various payment

methods to your app if you want to get bigger revenue. Start with Google Wallet, PayPal, Android Pay, and Apple Pay and increase the merchantability of your products. The more payment methods you need, the more costs you need to spend.

How does it cost to build an app in different countries

It is not surprising that online business itself takes the advantages of online technologies in order to reduce production costs. The main app development costs are usually associated with team costs. The main way to save them is called Outsourcing.

As it was said, in some cases, the budget savings reach 80%, if we compare remote development with classic full-time office teamwork. Contrast is especially noticeable if your business is located in the USA, UK or Scandinavia.

Let's look at the most popular Outsourcing types:

- **Onshore** means that development will take place in your country, but in a specialized company. The cost of the project onshore implementation is lower than the one under In-Built development but higher than ones under other forms of Outsourcing. For example, the UK medium hourly rate for onshore app development costs £44.

- **Nearshore** allows you to develop applications in your time zone country or not very far from it. Nearshore Outsourcing team is

easy to communicate with. The concept helps to reduce cost without facing cultural barriers. Example: German companies often are served by Polish teams. Software developer hourly rate in Germany is €22.50 per hour while the one is Poland starts from €15 per hour (according to Pay Scale).

- The third option is Offshore that means that you work with the team from the other timezone and with the other cultural background. Today, the cheapest places for top-notch mobile development are Eastern Europe with Ukraine and Poland as the quality leaders ($25–40 per hour), India, Philippines, and Vietnam (from $10) and China ($50 as a middle rate).

Not everyone prefers cheap Asian mobile development. Nowadays, Eastern Europe is considered to be a budget development leader across the world. There are several reasons for it: besides attractive hour rate and competitive team members' skills, Eastern Europe developers don't have strong cultural differences with the customers from the US, England or Canada.

In 2018, China, Russia, Poland, Switzerland, and Hungary were on the top for mobile developers worldwide.

How much does it cost to have an app? App maintenance costs

There is only a small number of applications that keep their apps un-updated while the revenue continues to grow. Classic chess application is a good example. In all other cases, technical and media

updates, as well as a constant dialogue with the user, are necessary.

The better you maintain your application, the more users you will be able to keep on your side. The annual maintenance cost for your application depends on what exactly you are going to change and develop each year, as well as what type of application you own. Here are a few charge items:

- User records store server
- Payment processing
- Emergency maintenance
- Push notifications
- New content
- Analytic tools
- Initial development

The maintenance cost may differ depending on which platform you choose and how well the app was built. Cheap development can be expensive to maintain. It is difficult to estimate maintenance cost before the test version of the application came to light. As a rule, 20% of the total development cost should be included in the budget according to the usual price list. This money is likely to be enough to maintain your application during the first year.

🚀 App development costs. Famous Startups

Applications may look similar, but it does not mean that it took the same amount of time and money to develop them. The development

cost depends on the app's "stuffing". Let's find out how costly the development of well-known applications' clones would be, relying on their key features and design:

Uber

The world-famous service, in fact, is based on the work of two applications: passenger and driver ones. The first helps you to find a taxi while the second provides drivers with orders and a passenger's location data. The main focus was made on the innovative taxi features. You can even say that Uber features were doomed to success even with a primitive design. There are basic features of both Uber apps:

- Login
- Booking
- Tracking
- Payments
- Calculations
- Push notifications
- Direct contact tools
- Data storage (history, reviews, reports personal data)
- Navigation
- Support
- Web-access

To create an Uber clone, you need to split the task between several stages: Backend development, Web development, Native apps development for iOS and Android, Design, Management, and QA.

Your team needs to spend at least 200 hours on Backend, 440 hours on Development, 400 hours on Design and Frontend and 260 hours on QA and PM tasks. That is $65 000 in total if you build an app in Eastern Europe.

Etsy

Etsy is a handmade items marketplace focused on the US market. 54% of Etsy customers prefer shopping on the app than on the website. The feature that allows this platform to generate profit is the intuitive clarity of the app. In other words, Etsy helps its users to find the desired product extremely fast and then to buy it as soon as possible. That's why the UX design and app architecture are the most expensive challenge for Etsy owners. Here you could find key Etsy marketing features:

- Clear User Interface
- Simple stimulating navigation
- Attractive product profile design with customizability
- Simple Login and Checkout (autosuggest, autocomplete)
- Add To Cart Buttons
- Clear user data organization (Wishlist, Save For Later) and offers' personalization (Recommended, User Feed)

In addition to architecture and design challenges, Etsy is soft development challenging. In particular, the application must have the same basic capabilities as the desktop version and there are plenty of them: payments, product listing, social network integration, messaging, feedback tools, and many others.

Evaluating the average design and development costs we assumed that the Etsy clone requires at least 1200 working hours. That means that you need around $ 350,000–50,000 to code an app like this. Almost half of the budget funds will be spent on design needs.

Instagram

Instagram, as we see it in 2020, is an extremely complex social networking platform. The success of this service rests entirely on mobile application features. However, analyzing Instagram at the time of its launch and the modern version means talking about two different things.

The initial Instagram is a simple photo editing tool with an extra sharing feature. The similar tool could be developed rather quickly, although the Instagram-2020 clone requires an unpredictable big team and billion of working hours.

So let's choose the middle option and analyze the potential MVP of a modern Instagram app. Here are the key software features of the Instagram app:

- Camera and galleries integration
- Online streaming
- Media storage
- Contacting tools
- Location tracking
- Media editing tools
- Online Purchases
- Advertisement administrating etc.

The sign in option will take around 60 hours to implement it with both Facebook authorization and individual password feature. Profile editing will take 105 hours plus 200 hours for Messaging. Leave 60 hours to Adjust settings development. Media uploading and editing require between 183 and 360 working hours. 35 hours for Social network linking and 60 80 hours for geo and search features. The Instagram clone MVP also requires database architecture that will take over 150 hours for the development.

As a result, you need to pay for at least 1000 working hours for one platform. Taking $50 per hour as a middle rate you'll figure out that the total bill of building an app from scratch is $120 000.

How much does it cost to make an app: Total Cost

Let's face the truth. Nowadays the average mobile user spends more time with a smartphone in his hands than watching TV, shopping offline or seating in front of the computer, so a smartphone is the best place to sell goods to him or her. However, in order to launch a financially successful startup, the team needs to understand how much money and time should be spent on mobile application development.

The application development speed depends on the quality of your team and the number of features you are going to implement. The minimum number of teammates is 5 and it takes around 5 months to build both front-end and backend part on average.

The key question is how you are going to manage your team. The less money consuming option today is outsourcing development in Eastern European. It will cost you $25–40 per hour to start an app and at the end, you will get a ready-to-use product.

How to Minimize Risks in App Development Offshoring

The moment of application creation has come. And you will hardly deny that development outsourcing could have a significant cost-saving effect to your project. However, there are always some mobile app development outsourcing risks that are likely to destroy well-established processes inside the company.

We are not going to discuss offshore soft development advantages such as global talent pole access, speeding-up project implementation, or keeping your budget low. Our task will be to find a way how to mitigate outsourcing risks with low resources.

⚠️ Common Risks in App Development Offshoring

First, let's find out what offshore development means. In practical terms, it is a form of executing soft development tasks related to your project with the help of a third-party team that works somewhere outside your office.

Outsourcing development is just another way to call the process. Its main advantage is obvious — if you do not limit yourself with geographical region your office belongs to, you've got access to employees with wider expertise that may cost you less because of hourly rates difference in their country and your one.

Is it possible to minimize app development risks? Sure! But mind that each offshore development form has its peculiarities and breakdowns.

There are three forms of app development outsourcing.

You could hire **remote individuals** to strengthen your in-house team. You could divide the project into parts (design, development, marketing, and others) and **outsource particular services** that will be hardly executed in-house. And you may find **a dedicated development team** to assign the whole project.

The third concept means that although you've got lower involvement in the project in its middle stages, and in the end, you'll receive the ready-to-use product.

To mitigate app development risks, you need to study them. Here, we've listed most common of their regarding all of the offshore development forms described above.

- **Unexpected expenses**
  No matter whether you work according to the fixed-price model, time-and-materials one, or cost-plus, there are always some risks the project was not estimated correctly. At the same time, your team may fail the task generally and it will be a need to hire a new team and start the process over.

- **Low task performance and management**
  There is always some management issues when it comes to outsourcing. You can't control remote workers' task execution quality and manage the entire process as good as it is possible having an in-house team. As a result, the final product could have critical vulnerabilities. Management failures also involved project delays.

- **Communication borders**

  Are you sure the dedicated development team has a clear vision of what you want to have as a final result? Product requirements document (PRD), clear objectives and timelines work well to lower risks. Nevertheless, you could be understood wrong due to cultural borders and that might be hard to provide developers with extra requirements being in different timezones.

- **Security risks**

  The dedicated development team could share private information on your project with your competitors or just don't use secure hardware or software and let hackers get into your digital business system. If your company works with bank accounts, collects users' data, or owns intellectual property that could be stolen — that is extremely important to ensure the privacy of project data.

Most commonly putsourced IT services in Western Europe in 2019, IDC

Service	Percentage
IT monitoring services	70.7%
Managed doud services	70.7%
IT infrastructure management	57.1%
Datacenter services	42.1%
Remote end-user support	41.4%
Security services	39.1%
Onsite end-user support	23.3%
Unifield communication and collaboration	18.8%
Other	3.8%
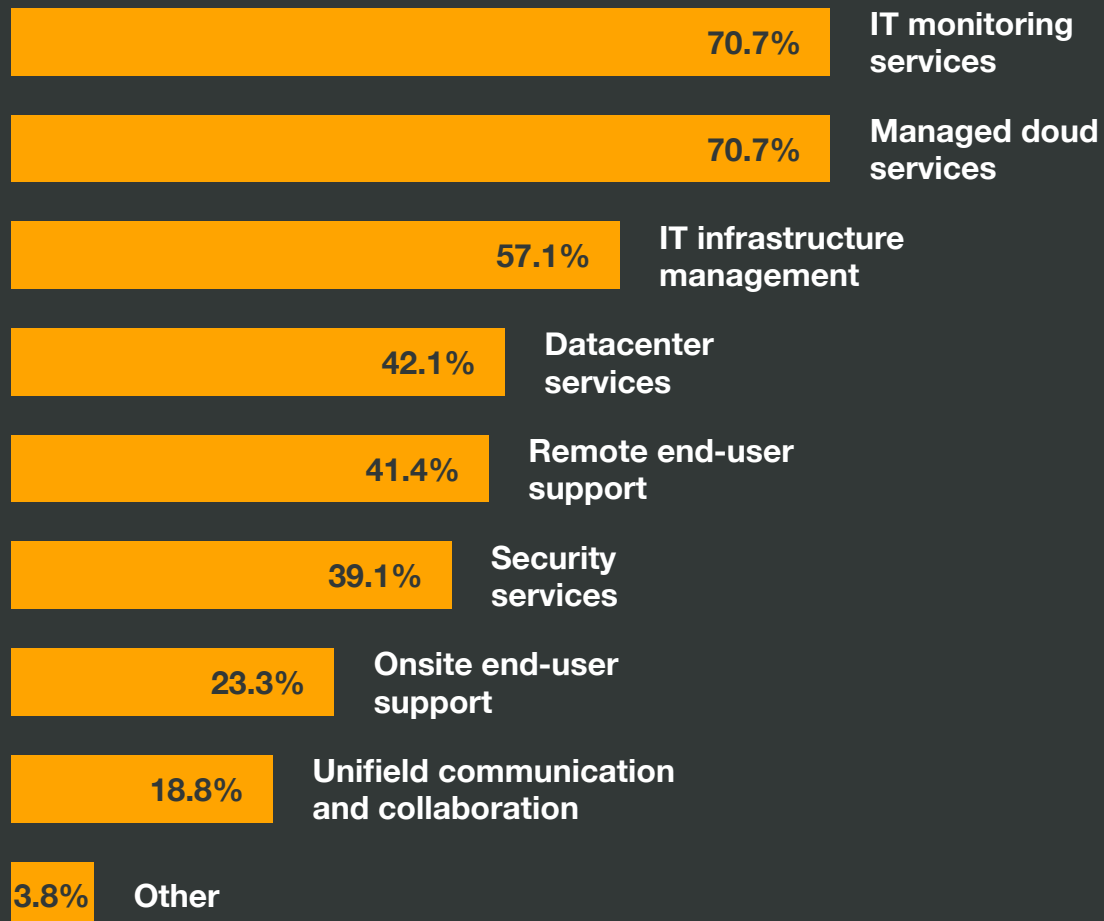
Top 5 services to outsource

Monitoring	Managed	IT infrastructure	Datacenter	Remote
it services	cloud services	management	services	end user support

Choose a Suitable App Development Offshoring Destination

Choosing the development outsourcing destination is one of those critical concerns you may face soon after you've decided to offshore some of your project execution tasks.

The final decision will influence app development productivity, timeliness, and budget. Keep in mind that there are several aspects you could longlist candidates regardless of the company's' competencies and size:

- **Time zone**
  If you work with a team from the region that has more than 5 hours of time zone difference compared to your one, that could be harder to conduct outsourcing management.

- **Cultural background and language**
  That's great if you can communicate with your remote team members properly. In that case, you will spend less time on management and save the project budget.

- **Hourly rates of workers from a particular region**
  Countries with higher social standards and life quality have higher hourly rates. If you've got a small budget, narrow the list of countries you'd like to offshore in.

- **Quality performance of workers from the chosen region**
  Although some regions are known for their low hourly rates

(India, China, or Indonesia), they are not always a good solution if you are not ready to provide constant quality assurance. As usual, extremely low salary rates mean low quality.

How to avoid risks of outsourcing? Find countries that are considered as proven digital outsourcing definitions due to their ability to provide you with skilled workers and keep a balance between hourly rates and quality performance. In 2020, Eastern Europe, the Middle East, and Latin America are definitions of that kind.

We advise you to take a closer look at Eastern European countries such as Ukraine, Poland, and Bulgaria, as well as their neighbors which are still gaining their outsourcing popularity among clients from the US, Western Europe, and Canada.

Companies from Eastern Europe can strengthen your project with highly-competent employees of various competencies with a good level of English and work attitude. The average hourly rate is around $50 there.

Hourly Rates for offshore Software Development in 2019

Title of full Time Employee	United States	Latin America	Eastern Europe	Asia
Business Analyst	$110 - $205	$45 - $55	$40 - $63	$30 - $42
Architect	$198 - $292	$60 - $72	$50 - $77	$35 - $48
Project Manager	$133 - $233	$55 - $66	$45 - $70	$35 - $48
Jr. Developer	$105 - $111	$32 - $44	$25 - $42	$18 - $24
Mid-level Developer	$132 - $140	$30 - $52	$35 - $56	$24 - $35
Lead Developer	$176 - $187	$50 - $61	$45 - $70	$30 - $42
Sr. Developer	$154 - $163	$45 - $55	$45 - $70	$30 - $42
Junior QA	$77 - $81	$30 - $39	$25 - $42	$15 - $24
Mid-level QA	$99 - $105	$35 - $44	$30 - $49	$20 - $30
Senior QA	$143 - $169	$40 - $50	$40 - $63	$25 - $36
Graphic Designer	$79 - $163	$40 - $50	$35 - $56	$25 - $36

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Company Size Matters

At first glance, the size of the company you are working with seems to be not an issue. However, when it comes to rare skills, complicated tasks, and risks of miscommunication, it is always better to have several candidates from the outsourcing company's side to choose. So you may need a huge vendor.

The opposite is also fair — big companies have more complicated outsourcing processes and management, their services are more expensive, and there are some risks of having wrong or lower-skilled remote workers in your team.

So where is the right answer? Here the most common advantages and disadvantages of working with outsourcing vendors of different size:

Small companies
less than 100 employees

Pluses — lower costs, extra flexibility regarding development processes (you could change ongoing tasks on the way), high motivation to please you, good communication.

Minuses — limited experience, no chances to scale up (the team is too small), fewer chances to work with top specialists (it is hard for a small company to attract skilled and experienced talents)

Medium companies
from 100 to 1000 employees

Pluses — wide experience regarding work with companies of various areas and sizes (startups and giants), well-established development processes, a brand reputation that helps a company to attract skilled workers, ability to scale your remote project team, no risks of sudden company closure due to bankruptcy, a still certain flexibility

Minuses — you can't scale up the project momentarily if you've already hired a huge outsourcing team

Large companies
from 1000 employees

Pluses — huge portfolio, you can scale up your team anytime, high-quality experts pole (they prefer working for large and well-known companies), rare expertise, ability to support huge and complex international projects

Minuses — high costs, bureaucracy, complicated management and communication, not interested in small or short-term projects, quality may differ (as it's not likely that everyone in the company is a top expert)

What we suggest is to evaluate the potential effects of outsourcing you'd like to achieve and the requirements you have. If you are planning to launch a small startup or you have only a few tasks you

can't solve with your in-house team — choose small or medium outsourcing vendors. If you need to cover a huge project, a large company will be more suitable for you.

However, the golden rule is to choose the company of your size. In that case, you've got more chances to match your working styles and management issues.

Outsourcing IT Services: Build an Effective Management Process

The software development outsourcing market is continuing to grow which means that next year we could expect even more companies on the market. How to choose the best one for your project?

As we've written above, start from defining your task, proceed with tech requirements, timelines, and budget, and find the region and company size that fits your purposes better.
The essential question that you are likely to ask yourself having picked a company to develop your product is how to establish effective management from the first day of project cooperation. There are some hints:

- **Learn team members expertise fields**
  Regarding the form of cooperation (entire project or particular tasks outsourcing), that is a good idea to build direct relations with your remote workers. Study team roles and scope of responsibilities of each of them and don't hesitate to ask them how it is going concerning project progress.

- **Clear tasks and strict timelines**
  Information technology outsources needs clarity, certainty, and concreteness. Make sure that your remote PM accepted your tasks and project deadlines. Include communication sessions to each of the critical project stages to follow team performance.

- **Keep an in-house person in charge**
  You may be too busy to stay in touch with remote PM or some team members all the time. That is a good idea to keep an in-house employee who could conduct general quality assurance of the project and ask the remote team for progress updates.
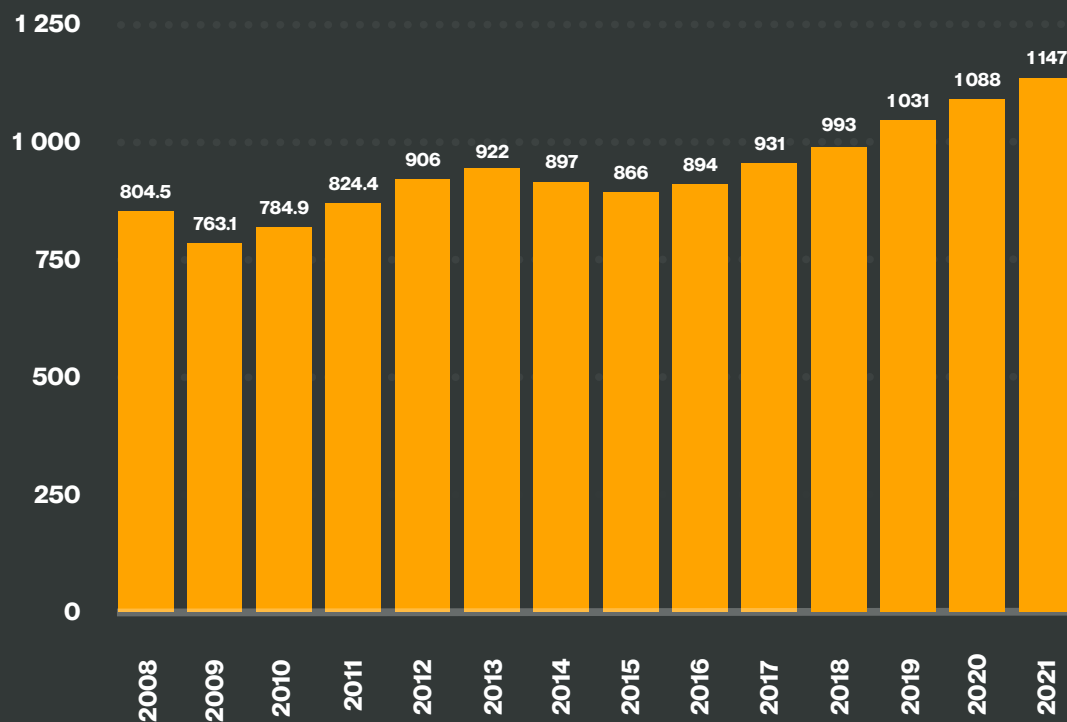
- **Keep your remote team motivated**
  We all are humans not machines. If you show your team a friendly attitude it will perform better and have extra motivation to share project details (even hidden problems) with you. You could also speed up outsourcing information technology processes by appointing a reward for advancing deadlines.

- **Save project communication data**
  Don't speak — write an email. Don't just tell additional project requirements — make notes and recordings. If you face a conflict situation based on misunderstanding, you can simply show your data to prove you are right.

Information technology (IT) services spending forecast worldwide from 2008 to 2021 (in billion U.S. dollars)

Year	Value
2008	804.5
2009	763.1
2010	784.9
2011	824.4
2012	906
2013	922
2014	897
2015	866
2016	894
2017	931
2018	993
2019	1031
2020	1088
2021	1147

Don`t Forget About Communication

Opting for offshore develop you need to take into consideration mobile app development outsourcing risks connected with communication.

Companies hire in-house workers because they are easy to manage, track, educate. The remote team could communicate with you using emails, various online team management tools, video chats services. However, you are not able to establish the same intensive communication compared with working in the same office space.

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Below, we've listed common difficulties you may face while development outsourcing and ideas on how to reach flawless cooperation to overcome them.

#1 You say A, the remote worker hears B

Bad English speaking skills, lack of motivation, general irresponsibleness of particular workers, and not well-established processes could result in misunderstandings between partners.

Advice — send updated requirements as well as meeting feedback in written form and make sure your contract allows such changes.

#2 Your requirements are being ignored

You are trying to find out at what stage the work on your project is, to make changes or additions, but no one is responding to you. Another option — they answer you, but with a long delay.

Advice — send requirements in written form soon after or before having a conversation and forward them to other persons involved in your cooperation (CEO, account manager, or somebody else)

#3 Nobody has asked for details — the result did not match your expectations

The result of the remote development does not match the way you've imagined your ready-to-use product. It seems that in your tech

documentation there were too many controversial issues that the executors decided on their own.

Advice — mitigate app development risks following the project progress constantly, initiate meetings and discussions at least once a week

Use Right Cooperation Model

You could minimize risks of outsourcing using the right cooperation model. That is also important to understand that each of the models has its advantages and disadvantages. What you need to do is to use the strengths of the model to save budgets and strive for excellence.

Use the list of project goals, consider your preferences for management style, and don't forget about risks regarding your startup area.

The fixed price model

good for a small project, MVPs, products with concrete requirements

The cooperation of that type is based on a fixed-price agreement where the client is going to pay a fixed price and wait for the result that perfectly matches their expectations. In this case, the client has to share a clear vision of the final product using project specifications and requirements.

The model works well for projects with highly predictable development procedures that could be easily rated and evaluated. According to the fixed price concept, additional ongoing requirements are not acceptable or they may cost extra money. At the same time, the project is easy to plan, manage and check.

The time-and-materials model

good for long-term projects or cooperations, startups with an unknown scope and dynamic requirements

Outsourcing information technology with the time and materials concept is about flexibility. You as a client is supposed to pay for an actual number of hours employees spent on working out your tasks as well as they should cover the cost of materials (equipment, licenses, subscriptions, etc.).

In case of a time-and-materials contract, clients can change ongoing goals, set new tasks, cooperate with remote employees as much as they want, and shift directions. Although dynamic work scope is the major advantage of the concept, there is also better project timing as you will constantly how much time is required for each app feature implementation.

Pay Special Attention to Security

Outsourcing management, as well as other tasks concerning your product, involves working with secure data. There several types of

information that is valuable for the third-party groups (cybercriminals as well as your competitors):

- **Project documentation** — ideas, plans, and promotional strategy

- **Company secure data** — number of employees, information on inner processes, profits, bank accounts, employees' personal data

- **Users' personal information** — names, bank accounts, telephone numbers, emails, activity inside the app

Two major risks may occur in data security. First, data may be stolen with a purpose and used against your company. Second, your outsourcing partners may develop weak data operating algorithms that cause errors and leads to data storage failures. Both options are unfavorable for your business so is it any chance to overcome them? There are some tips:
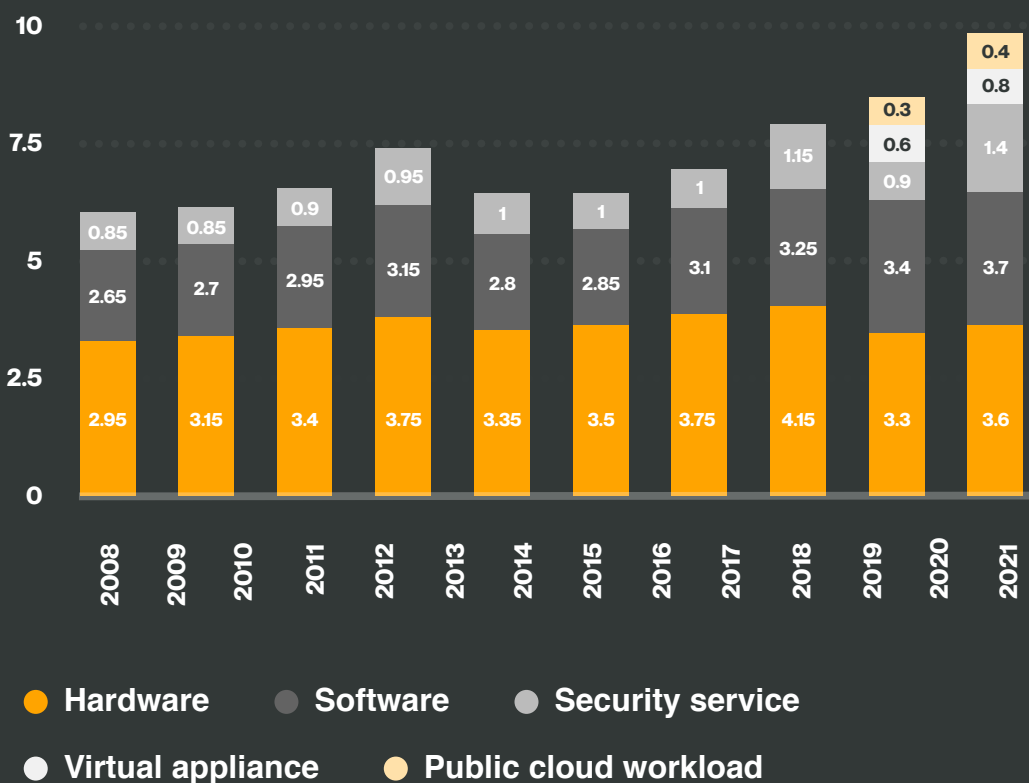
- Include privacy terms to your contract (security guarantees to you, your investors, and users)
- Choose trusted IT vendor (with good references and huge clients in its portfolio)
- Use information security standard ISO/IEC 27001 working out your project
- Check what kind of soft your partner use and what data protection mechanisms they provide
- Consider General Data Protection Regulation (GDPR) and proceed with early security evaluation, gap analysis, and risk

assessment while completing your software development life cycle

To mitigate outsourcing risks connected with commercial or users' data losses you may also keep in-house PM and QA manager who will be in charge of security tests. Another way is to ask for permanent access to remote workers' hardware to check their activities.

You may also limit private data accessible for outsourcing developers or split the project between several companies.

Quarterly revenue of the information technology security market from 2016 to 2019, by deployment type (in billion U.S. dollars)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public cloud workload												0.3		0.4
Virtual appliance												0.6		0.8
Security service	0.85	0.85	0.9	0.95	1	1	1	1.15	0.9					1.4
Software	2.65	2.7	2.95	3.15	2.8	2.85	3.1	3.25	3.4					3.7
Hardware	2.95	3.15	3.4	3.75	3.35	3.5	3.75	4.15	3.3					3.6

- Hardware
- Software
- Security service
- Virtual appliance
- Public cloud workload

✓ Conclusion

It is impossible to avoid the risk that something went wrong completely. And it's even more difficult to predict which risks will become critical for the project while working with a remote team. However, in 2020, it seems the game is worth the candle. Outsourcing gives business a lot. Cost reduction, access to more qualified specialists and experts, and the ability to scale the project are the most significant benefits

At the same time, the most common risks of the outsourcing process remain unpredictability of communication and problems with information security. Our advice is to conduct information technology outsource thoughtfully — paying maximum attention to selecting a company, choosing a model for interacting with a team, and communicating with your remote employees frequently.