The Product Manager's

Definitive Guide for App Optimization

APPTIMIZE

Optimization (noun): an act, process, or methodology of making something (as a design, system, or decision) as fully perfect, functional, or effective as possible

The mobile market is one in constant fluctuation as new technologies, methodologies, and user preferences change. Most fluid of all? Customer wants and desires, ensuring that there will never be one "perfect product." Rather than mapping out the perfect product, the top apps are always striving for improvement and staying nimble enough to recognize shifts in consumer demands to change and adapt accordingly.

How do they do this?

By using optimization techniques that help teams identify user preferences, decide the next iterative changes to make, and validate them through testing. As a result, they're consistently able to meet user demands in a highly entropic market. This methodology is what an overwhelming majority of the top apps have used to propel themselves to the top of the app markets and becoming so good they can't be ignored.

In the mobile industry, optimization is king.

In this paper, you'll learn how to:

- Identify the low hanging fruit in your app
- Set up metrics tracking to view your progress
- Create a minimum viable product to test your hypotheses
- Validate changes through testing
- Present data-backed evidence of your impact
- Define new stories for your product roadmap

Why Optimize?

It's pretty much free.

Optimization isn't about investing heavily in building new features or functionality. It's about getting the most out of what you already have. That's why it's so cost efficient. Optimization focuses on tweaking the processes you already have to ensure that they're as effective as possible for your users.

You don't need to spend huge amounts of time and money. Simply use what you learn from user data to improve your product. Following the method outlined in this paper will point out the low hanging fruit, allowing you to seize it and reap the benefits for an outstanding ROI.

It deters users from switching.

If there are two ubiquitous qualities among mobile users it's that they're 1. easily disengaged and 2. highly task oriented. In mobile, expectations are high while switching costs are low. That means that if you're not addressing their needs as quickly and efficiently as your competitors, they're going to swoop in and take your users. The optimization methodology empowers you to quickly close those vulnerabilities, and retain the users you worked so hard to obtain.

It enables you to build the best user experience possible.

Optimization is all about better serving the customer. Traditional methods of conducting user research and testing don't work well because "mobile users find it challenging to effectively describe what a mobile app needs to do." - Van Baker, VP of Research at Gartner. While they may be able to describe what bothers them, most users simply don't know how to articulate the differences between a mediocre app and an extraordinary one.

That's where this method excels. Using it, you'll be able to pinpoint exactly what drives the user behaviors you want, as well as what encourages the behavior you don't. Then, you'll be able to test out those changes and demonstrate using solid data why or why not a change is beneficial for your product and your bottom line.

## It makes your marketing dollars go further.

"If you're not retaining your users, all other effort is a waste of time and money." - Nancy Hua, CEO of Apptimize

I'm willing to bet that your team spends a lot of time and effort just to get users to download your app. But if those downloads don't convert to users, it's all for naught. That onboarding transition is all about effectiveness and efficiency. You need to convince users of the value you add to their lives and do it quickly. Optimizing your application for onboarding will ensure users understand the value of the product you've worked so hard to build and make sure they don't drop off before they do.

It lowers customer acquisition costs.

Delighted users equals free marketing. As we focus on providing a better customer experience, we naturally begin to delight customers and provide them the megaphone with which to share for us. 77% of app users arrive at an app because a friend recommends it to them, while less than 20% of users said they've downloaded an app as a result of advertising or media coverage. That means that user sharing is the most powerful marketing tool we have in our arsenal. Optimizing for a better customer experience greatly increases the chances that you'll delight your users and encourage them to share your app with all their networks.

77%

< 20%

Word of mouth

Advertising channels
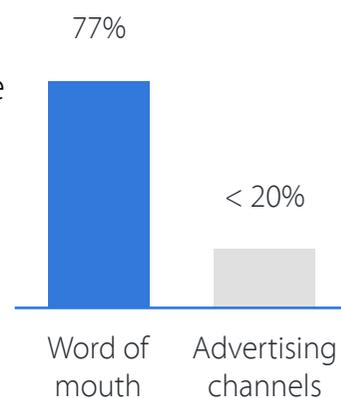
-Ofcom Research

Where do I begin?

Without optimization, you're not going to stay competitive in mobile for long. You'll bleed users, waste your marketing efforts, ignore the low hanging fruit, and fail to capitalize on all sorts of opportunities. So the next question is, how do we go about optimizing our mobile product?

In the rest of this paper, we're going to walk you step-by-step through a powerful optimization method that all the top apps use today. You'll learn how to identify the low hanging fruit, set up tracking, create an MVP, validate changes, define new product stories, and present data backed evidence to demonstrate your impact. Sound good? Then let's get started.

The 7 Steps of Optimization

In our definitive optimization guide, we'll get started by first identifying the problem at hand: why does actual user behavior differ from our desired user behavior? Once we've defined the problem, we can use it to determine what behavior we want to change. To track the impact on user behavior, we have to map out what metrics and analytics will help us measure our progress.

From there, we create a hypothesis about how we can bring user behavior closer to desired behavior and build a minimum viable product (all) to test and validate its effectiveness. After testing is complete, we'll see the impact of our changes on actual user behavior, and use it to determine whether to push forward with our MVP or alter our approach.

Step 1: Define the Problem

What does the user actually want to do?

All users download apps because they want to complete a task. That task could range from connecting with a friend, completing an order, or simply killing time. The first, and possibly most vital step is to figure out what users want to do in your app. Use your analytics platform to see what actions users are taking in your app and track their flow throughout the app.
One thing you'll discover is that the best apps all have a single core value proposition that they hone in on and excel at.

Ask yourself and your team:
- "What is the core value that users want from my app?"
- "Why did they download the app?"

For Uber, users want to get from A to B, fast. On Yelp, users are looking to find well reputed restaurants and companies. Starbucks customers want to manage/pay with their gift cards. In each of these top apps, there is a simple goal or goals that begins as the main focus. All else after that is supplementary to the value.

Still not sure what your core value is? Conduct user interviews and ask them why they decided to download the app. What was it that they desired which led to the download? Write down your core value below:

In my app, users want to :

_____.

Specify Our Goals

Your team should have a clear goal of what you want users to do in the app. Start with your high level goal: Why did you build an app? Some possible reasons include:

- Generate Revenue
- Build branding/market for a company
- Grow a following
- Generate Leads

Whatever your goal is, translate that into specific user actions. Want to generate revenue? Measure this by orders completed. Want to build a following? Hone in on user sharing or engagement. Want to generate leads? Try measuring it by how many users sign up for your app.

Whatever your goal is, you want to specifically define actions that you want users to take in your app. Without this, your team will lack focus for how to grow your mobile app. Once we know what the desired behaviors are, we can clearly see in what ways actual user behavior is differing from the desired.

We want users to:

_____.

Know What to Ignore

As important as it is to define what the goal is, it's equally as important to define what the goal isn't.

> "Smart people don't like easy problems because they seem too easy" - Waseem Daher, Product Manager at Dropbox.

Part of the problem is that we tend to want to overcomplicate problems. This results in an unnecessary expenditure of resources and time. Clearly defining the problem and outlining what to ignore helps you fight scope creep in the future, and gives you the reference point to clearly point to and say, "No, we're not working on that right now."

Look at your problem above, and cut it down as slim and simple as it can be. It may be a "dumb" or "small" problem, but for continuous improvement and growth this is a necessity.

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Keep it concise. Keep it concise. Keep it concise. Your goals should be:

- Specific - they should be simplistically written and clearly define what you are going to do.

- Measurable - so that you have tangible evidence that you've accomplished your goal. Identify whether you want your metrics to increase or decrease.

Else, you're going to lose focus and try to take on too much at once. Doing so will ensure mediocre results and wasted time. Keep it concise.

STEP 2: Define Your Metrics
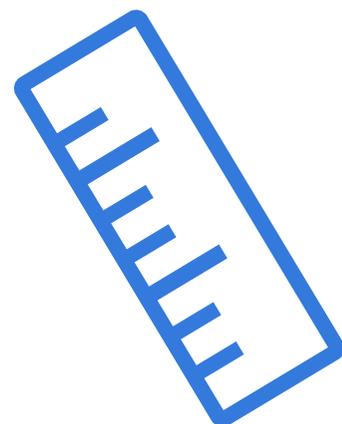
Once we've defined the hypothesis, the next step is to identify the metrics in our analytics to measure behavior and the impact of changes we make to our app. Using conversion funnels will help you track user flow between critical steps. It will also give you insights into specific user behavior and where in the process they're dropping off.

Identify key steps that lead up to and occur after a desired user behavior. For instance, if you're tracking user behavior regarding sign-ups, you would want to look at the numberus of users who open the app, complete the onboarding tutorial, land on the registration page, and complete registration.

Next, define specific events in the app that will trigger when a user advances to the next step. This will ensure that you have accurate analytics detailing how many users move from one step to the next allowing you to see the percentage of drop offs for each.

Make sure you track not only the event itself, but also key events tied to your high level goals. The last thing you want to do is make a change that boosts a less important metric, but decreases your most important KPIs.

Download

Open

Tutorial

Register | Skip

Engage

Retain
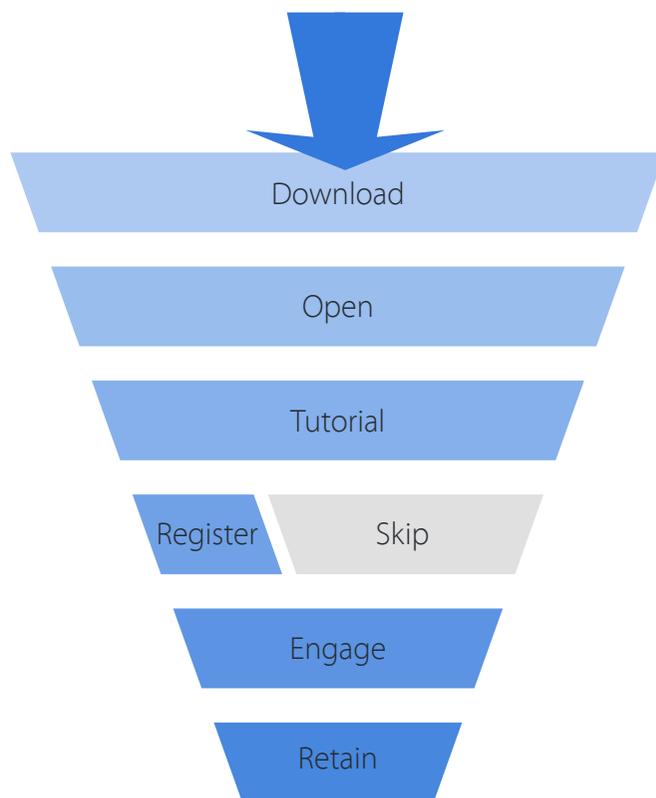
STEP 3: Form Your Hypothesis
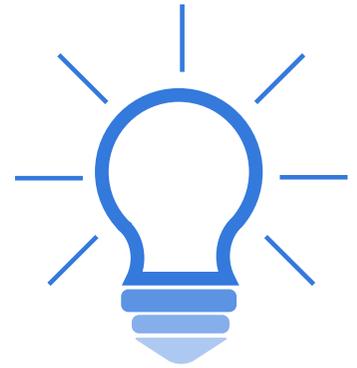
Now that you have a clear, concise, and measurable goal, you want to come up with a solution that will help you reach it. Using the conversion funnels from the last step, identify the point with the steepest drop off in users. Brainstorm with your team how to improve the user experience and help nudge people in the right direction.

Again, we're not trying to overcomplicate things here. You want to keep the scope simple so that you focus on making a small change with minimal assumptions. While it may be tempting to create the perfect solution at this point, we want to make a small simple change to validate first.

1. Identify your primary level goal - "I want to increase engagement/profit/shares/signups."

2. Specify a KPI for the above goal, and how you want it to change - "Increase number of signups."

3. Identify the direct action that tracks this metric - "Clicking on the register button during signup."

4. Identify the bottleneck or blocker for your goal - "Not enough users are clicking on the register button."

5. Hypothesize what changes will result in your desired outcome - "If I change the CTA, then the number of registrations will increase."

Now it's your turn:
Identify your high level goal

_____

Specify a KPI for the above goal, and how you want it to change

_____

Identify the direct action that tracks this metric

_____

Identify the bottleneck or blocker for your goal

_____

Hypothesize what changes will result in your desired outcome

_____

STEP 4: Create a MVP

Now, it's time to turn that hypothesis into an actual change in your app. The most important thing to remember in this step is to avoid scope creep.

The truth is, we don't really know what users want, and neither do they. Gartner Research says that users find it challenging to effectively describe what a mobile app needs to do. Instead of asking users what they want, make a small change and test it on a small group of users to see how it affects behavior. Without testing, you won't know exactly how a user will react to a change. Implementing a more complicated change will confound your data and make it difficult to determine exactly what users are reacting positively or negatively to.

To avoid this, we want to build a minimum viable product or MVP. An MVP is the smallest thing you can build that lets you collect "the maximum amount of validated learning about customers with the least effort."
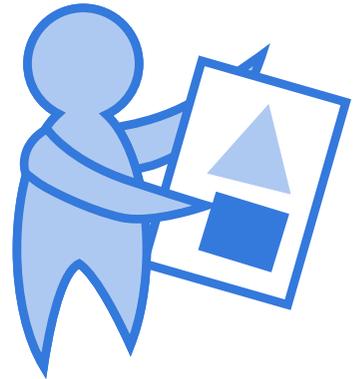
> "Smart people really like to over complicate the problem because you can see four steps ahead, so its very tempting to say like, "Hmm let me go build that final version." But when you do that you get the activity stream, you don't get something that actually increases your users metrics."
> - Waseem Daher, Product Manager at Dropbox

Instead of spending months on development, we determine the smallest change to validate our ideas, then get real feedback using A/B testing.

An MVP is the smallest thing you can build that lets you collect "the maximum amount of validated learning about customers with the least effort." In essence, we want to build a product that will validate or invalidate our hypothesis, and give insights into why.

Work with your team to build a lightweight change or use the Apptimize visual editor to make instant changes to your UI. After that, we can move on to testing.

# STEP 5: Test Out the Change on a Small % of Users

Once you have an MVP, you want to get feedback from your users in order to validate or invalidate your hypothesis. The best way to do this is through A/B testing. A/B testing allows you to isolate a change, and see the exact effects that it has on user behavior. It gives you quantitative data that's easy to interpret and helps determine your next action steps.

When testing an MVP, it's best to deploy to only a small percentage of users. Rather than release an update and push it to all your users, A/B testing will allow you to decide what percentage of your users to test on. This way, if you have negative results, you can still gain insights, without affecting the majority of your users.

Once you know whether your MVP is driving the desired user behaviors or not, you can either roll it back or push it out. This means that a change you make can be rolled back to a previous state with the push of a button, something that normally takes days to weeks on the App Store. In addition, if you are seeing positive effects, you can push it out to more users or deploy it to your entire user base with just a few clicks.

STEP 6: Iterate, Iterate, Iterate
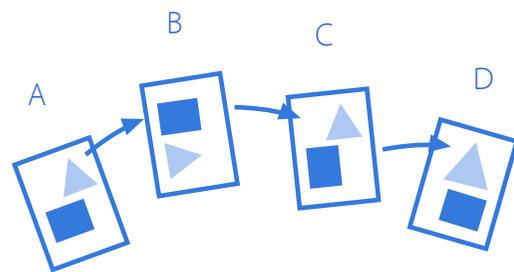
Making regular iterative changes rather than large feature-based releases allows you to also make quick changes based on user behavior. Instead of waiting months in between releases, you can see the effects of each change and get user feedback and data quickly. From each test, you'll get new customer insights, allowing you to constantly tweak your strategy and re-define your product roadmap.

Optimization is not about huge leaps, bounds, and gambles. It's about constant steady improvement over time that compounds. Each of your tests will give you new insights into your customers, allowing you to build upon learnings and previous improvements to better understand and serve your customers.

> "Small wins are good, they compound. If you're doing it right, the end result will be massive." -Kevin Li, Product Manager at Yahoo! Growth

STEP 7: Repeat

When dealing with ever-evolving markets, we're never done improving. As you learn more about your users and your product, continually run through the method to stay ahead and make sure you're doing everything you can for your users.

Growth isn't a one time investment, it's a continual process that you must invest in to see returns. Learning this method will make it easy to continually identify the lowest hanging fruit and grow steadily, regardless of the changing markets.
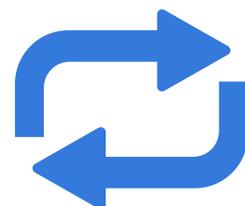
Conclusion

Now that you've familiarized yourself with the process, it's time to get started. Once you start this optimization process, it'll become a consistent driver for growth, playing a key role in defining your product roadmap into perpetuity. Regardless of how the market changes, this method will consistently give you insights on what to tackle, how to track it, and how to move nimbly and adapt to customer demands.

For more information on mobile optimization, visit the Apptimize Website at www.apptimize.com

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