

ONE

to

Data-Driven Strategies
from Insights to
Investments to Scale
Tech Products

HUNDRED

A Practical Guide



SHUBHANSHA AGRAWAL

One to Hundred

Data-Driven Strategies from
Insights to Investments to Scale
Tech Products

Shubhansha Agrawal

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About the Author

Shubhansha Agrawal is a seasoned leader with twelve years of experience in product development, engineering, and management across diverse industries and regions, including the US, Canada, the UK, and India. With a Masters degree in Software Engineering from Carnegie Mellon University and patents under her belt, Shubhansha has held strategic roles at top-tier companies like Yelp, Salesforce, Wall Street Journal, Myfitnesspal, and AtoS, where she led global teams to success.

Currently, Shubhansha is the Head of Product for Contributions & Community at Yelp, where she spearheads the development of the platform's flagship feature:

user-generated content, such as reviews, photos, and videos, that support local small businesses and fosters connections among millions of contributors worldwide. Her approach to product design blends user psychology and machine learning to deliver personalized and engaging user experiences.

In addition to her professional achievements, Shubhansha is a passionate advocate for diversity and inclusion in STEM. She has shared her expertise and insights as a public speaker at numerous international conferences and universities, including ProductWorld, WomenInTech, Society of Women Engineers, Carnegie Mellon, and UC Berkeley. Shubhansha also contributes to academic journals such as MindTheProduct and ProductCoalition and serves on the board of DevNetwork and the advisory council for Harvard Business Review. Through these roles, she aims to support and empower women and young adults pursuing careers in tech and help bridge the gap between technology and society.

Dedication

This book is dedicated to all aspiring and current
product managers.

“Not all who wander are lost” - J.R.R. Tolkien

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INTRODUCTION

In the rapidly evolving world of technology, the success of software products hinges on two crucial factors: identifying opportunities and scaling effectively. With this book, I aim to provide a practical guide that equips product managers, entrepreneurs, and innovators with the strategies and insights they need to navigate the dynamic landscape of software product management and growth.

Why ‘One to Hundred’?

‘One to Hundred’ in the context of product management refers to the journey of scaling a product from its initial stage (one), where it has achieved product-market fit to achieving mass adoption and widespread success (hundred). It often refers to taking a product from its early stages, with limited users or market presence, to a stage where it reaches a large customer base, has become a market leader, and generates significant revenue to the business, value, and positive impact to the users.

Products are ripe with opportunities, but finding and capitalizing on them requires a keen understanding of user needs, market trends, and emerging technologies. In this book, we will dive deep into the art of opportunity discovery. We will explore various methodologies, frameworks, and techniques that will empower you to uncover hidden gems, identify pain points, and spot untapped market segments. You will learn how to conduct market research, analyze user behaviors, and leverage data to unearth opportunities that have the potential to transform your software product into a

market leader. Throughout the book, we will explore essential topics such as user segmentation, funnel analysis, investment worthiness, user retention, user acquisition, and the power of strategic partnerships.

However, identifying opportunities is just the first step to success. The true challenge lies in scaling your software product effectively to reach a wider audience, drive adoption, and maximize its potential impact. Scaling requires strategic planning, meticulous execution, and an unwavering commitment to delivering value. Throughout this book, I will explore the intricacies of scaling software products, exploring horizontal and vertical scaling approaches. I will discuss the importance of optimizing user experience, enhancing product quality, and leveraging metrics mavens to propel your product toward mass adoption.

By combining the art and science of finding opportunities with the strategic insights necessary for effective scaling, I aim to empower product managers to unlock the full potential of their products.

CHAPTER 1

Foundations of Product Success

When thinking of ‘one to hundred’, it's crucial to understand the status quo behavior like the back of your hand before adding new features. It's because you already

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have a user base that is getting some value out of the product. You want to be building on top of that value unless imperative to change directions due to significant market and industry trends. And even in that scenario, the best way to scale products is by finding simpler, intuitive, and intelligent solutions to keep adding incremental value to your user base.

One of the key benefits of the existing products is that you have tons of data already present that can be cut into different slices and sections to give answers to pretty much all the questions that you may have about how the users are interacting with your product or with a particular feature. And for any questions about the ‘why’ users behave the way they are, you most likely have an established set of power users on your application that you can reach out to for feedback via interviews or in-product. If you don’t have detailed tracking or logging available in your product for your core features, stop right here! Put that as a number one priority and get that done. Sometimes existing products can

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have a lot of legacy flows and code that may need a refresh on data analysis as well. I will be covering now what to think of when analyzing whether you have all the data available you need.

1. Start with the core flows

Established products have had multiple product managers, engineering and design teams over the years and may have hundreds of different functionalities and flows built over time. But users may be interacting with at most top ten of your core flows where they get the most value from.

Understanding exactly what those are and getting alignment across all stakeholders on them is the first step.

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2. Do you have a segmentation of your users?

It may be surprising but a lot of established products do not have thoroughly thought out and researched user segments baked into their data analysis. Looking at all your users the same leads to limited product capability. So before I dive into how to segment your users, let's highlight some reasons why even do it

- Differentiated behaviors: When looking at users with a detailed lens of how they are interacting with the product you will see differences in time on product, features they interact, frequency of visit to the app and more. If all users are analyzed together, you will see an average of the behaviors which will be hard to conclude improvements from.
- Product Customization: A power user may have a different value gain from your product vs a relatively new user who is still making up

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their mind about how valuable the product is.

By adding segmentation to your users, you

can not only analyze but build custom

features that are only available to a specific

set.

- Targeted Messaging: How a feature is messaged matters in how a user will use it. With segmentation, you can adapt in-product messaging based on who is interacting with it.

With the above benefits laid out for user

segmentation, let's dive into how to actually do user

segmentation that's helpful:

- Define the criteria: Start with the basic demographic factors like geography, age, gender and expand to product behaviors like tenure on product, frequency of usage, engagement and retention. Try narrowing it down to your business and team objectives if

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you are looking for the entire product or one core feature.

- Identify patterns: User segmentation is only valuable if you can see similar behavioral patterns for a group of users so you can target them. Analyze trends and patterns for a particular activity to group some types of users together. These groups should be large enough to be meaningful but not too specific that you have too many segments. Ideally, you should be able to create four segments of your users. If this is the first time you or your product team is doing this, ask for help from Business operations, Data Science or Strategy planning stakeholders in your organization.
- Take a step further if needed: Once you have identified users by patterns and actions, you can use machine learning to predict user

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behaviors for the next few quarters or years and can group them that way if that's more meaningful for your business goals.

- Lastly, create user personas: By this time you have done through analysis and have built your segments. But they are still incomplete as it's all still numbers and metrics and you need a story of why the users are acting the way they are. You can do surveys, user interviews to understand their motivations and build a persona around each segment identifying the two to three common characteristics that make them a segment and their reasons for that.

Now, the segments are ready to be aligned with all the stakeholders and baked into everyday analysis and dashboards so they are

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adopted team or organization wide for any future iterations.

3. Year over year trends to account for seasonality

As rightly said, true growth is not by comparing yourself to others but by how far you have come from before. When analyzing trends, you may notice the trend lines either spiking up or down over the years, it's never linear. Here are some things to look for when you see that:

- Is the same spike or drop happening each year or each month? If yes, it could be seasonal resulting from many factors like economic trends, holiday seasons or demand for your product may be higher in some months over the others.

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- Was a new feature launched around that time?

If the change is one-off look for past launches and if you can map it to any particular feature launch. If yes, depending on good or bad trend and how sustainable that change was post launch, you can think about next iterations from it.

- Rise in competitors? If there is a big change in trends and you cannot map it back to anything above or by other demographics cut, look outside your product and do some market research. Was there a new feature launch by a direct competitor that attracted some of your users or a completely new competitor or market trend rising up?

4. Account for big chunks of your product base

Lastly, as is the case with most established software products, it's possible that it's already scaled to

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multiple different platforms (iOS, Android, Desktop and Mobile Web) and launched in multiple different cities and countries. Keeping these data points handy helps in keeping track of how the product is performing in these different areas and if attention needs to be paid at a larger level vs user level for scalability.

These sum up all the data segments and trends to account for when looking at established products. I highly recommend having these setup as dashboards that you can visit weekly if not daily to continuously monitor your product health and identify any change in market, economics and user behavior before it scales.

Now that you have a system setup in place for above, want to switch gears on how to put data in place to identify any opportunities in user behavior. One of the most popular industry practices is to do funnel analysis and I will dive into

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why it's helpful and best practices to have the data in place for it.

1. Identify the flows that can benefit from a funnel analysis: The goal of funnel analysis is to deep dive into a series of actions that we want users to take and identify the drop off or friction points user faces in that flow. This is usually very detailed with logs being put in place at a very granular level, examples include every button on the screen, every dismissable option on the screen, different screen or flows each button tap will lead to and so on and so forth. It's important to be mindful of where they should be put in place as it requires engineering investment and your time to identify all the touchpoints. I go back to the core flows of the product that identified earlier and they are the best candidates to put funnel logging in place.

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2. Set baselines for conversion numbers: Just because we see users dropping off at a particular screen, doesn't mean it's necessarily a bad thing. With the influx of information and volatility of user motivation, some drop off is expected. Looking at industry standards, competitor analysis, your year over year analysis (as we identified earlier in this chapter) helps you set a realistic baseline of a good and bad funnel conversion number. With the baseline in mind, you can set OKRs (Objectives, Key, Results) and goals for the conversion numbers.

With this, you should now have an extensive list of drop off points as areas of improvements, goals you want to achieve, and a good pulse on what is working well and not in your product and your core flows. With this information, the next few chapters will cover how to use this data to understand the 'why' of the user behavior, measure worthiness if you

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should be investing in it and come up with solutions to scale your product.

CHAPTER 2

From Insights to Opportunities

Now with all the data in place and getting some great insights about user behavior handy, it's time to dive into understanding and evaluating if these insights are

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opportunities for scaling the product. Here is a framework that I have found valuable:

1. List all drop off points

In the previous chapter, you have already seen how to identify the friction points in user behavior and think of your goals. Now start with listing all the drop off points, low engagement CTAs from your data and funnel analysis. There is no need to prioritize them yet, we will get to that in the next chapter. Right now, our goal is to get a better understanding of ‘why’ these drop offs may be happening.

2. Categorization

Start categorizing them into which of them are due to a friction in the product and which are due to lack of motivation or value from the product. We will talk about each of these in detail below.

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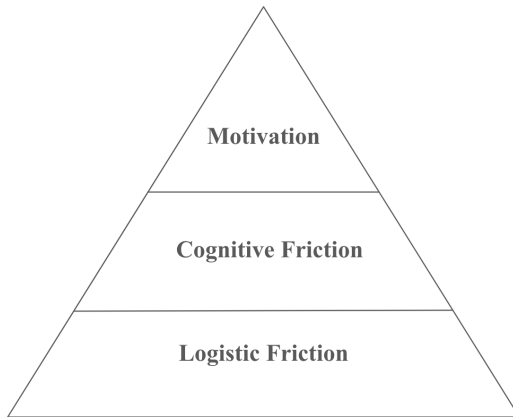


Fig 1: Types of User Pain Points

Friction

Why are we looking at friction first?

As product managers we sometimes get too attached to our product and because we spend hours and hours of our days thinking and playing with the product, it's easy to know each action and flow. With this frequent use, we can miss some ways the product may not be as intuitive to a first time or even relatively new user. We may miss some simple friction points which can be easy to fix and lead to easy wins

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and scalability with more using the feature who would have
dropped off otherwise.

Once you start noticing these friction points, you will notice they are not all the same and can be largely broken down into two ways:

- Logistic Friction: Any unnecessary action that the user has to do which may either be too difficult, or time consuming to achieve their goal should be seen as logistic friction. Some common examples include:
 - Navigation issues: When a user has difficulty finding a functionality or a piece of information on the product because of unclear information architecture or too many steps.
 - Slow loading times: How many times do we get annoyed when we see that infinite spinner on mobile apps or websites? Imagine having to deal with that regularly or after submitting

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a time consuming activity on the app like
submitting a fully filled out form.

- Errors: Continuing on the form example from above, imagine you take 15-20 mins to fill it out and when you submit, it errors out with all the data lost or lack of education from the product on what happened there. So improper error handling is one of the biggest reasons for users dropping off.
- Inconsistent visuals: Not only inconsistent fonts, colors or styles across the application can cause logistic friction but also putting too much focus on one button (big red button) can take attention from everything else and can cause confusion.
- Cognitive Friction: Any mental difficulty or effort taken by the user to understand the actions they need to take on the product to achieve their goal and get

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value. This is often overlooked as it is harder to spot and solve compared to logistic friction and can vary a lot by the type of user segment interacting with the product. But once you do, it can lead to not only removing drop off points but also incremental user satisfaction and retention on the product. Some examples include:

- Overloaded user interface: Giving users too many or too ambiguous actions to do can lead to cognitive load of how to even take the first step.
- Asking for a large commitment upfront: Showing users a five page form to fill at the beginning can be daunting for anyone and can lead to drop off. Thinking about breaking it up into small chunks and making it fun and interactive can still keep the user engaged.
- Too many choices: Giving users too many options to choose from that goes in a spiral of

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comparison with no real differentiation adds
to information overload. Classic examples are
too many variants of a subscription model by
a product.

- Complexity of the decision: Can the decision be made in a simple way? Are you asking them to make a series of choices that can be overwhelming to achieve a simple task?
- Lack of information: Does the user have all the information they need to make the decision? If they are trying to buy a product, can they look through all the necessary information without having to fish the internet for it?
- Can they trust the product? When a user is making a time or money investment, one of the most valuable commodities is trust in the product and the content. If they don't, they may struggle with making that decision.

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Having client testimonials and transparency
about the product and brand values can help
build that trust and get users to make their
decisions faster.

Lack of Motivation

Once we have figured out any friction, it's time to think beyond the status quo user experience. Consider the scenario where you have looked through the drop off points in the funnel and data trends and there doesn't seem to be any apparent logistic or cognitive friction in them. Then what's the reason for the drop off? That's where lack of motivation comes into play.

For a user to continue interacting with the product, they need to get value out of it. Value can be directly related to motivation and potential benefits of using the products to achieve their goals. This is where you as product managers should explore if there are possible reasons why users may be getting demotivated and dropping off. Although there can

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be many scenarios, sharing some examples for context on

lack of motivation:

- A task management app that does not provide any incentives or rewards for completing tasks.
- A language learning app that does not provide any feedback or progress tracking.
- A fitness app that does not provide any social features or community support.
- A productivity tool that does not provide any gamification elements.
- A meditation app that does not provide any guidance.
- A news app that does not provide any personalization or customization options, making it difficult for users to find news articles that are relevant and interesting to them.
- A mobile game that does not provide any awards or achievements.

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- A financial management app that does not provide any insights or recommendations, making it difficult for users to stay motivated to manage their finances effectively and make informed decisions.
- A social media platform that does not provide any privacy or security controls, making it difficult for users to feel safe and motivated to share personal information and engage with others.
- A recipe app that does not provide any nutritional information or health tips
- A streaming service that does not provide any personalized recommendations or curated playlists.

Now with a better understanding on types of friction users can face and possible reasons for drop offs, you can map these to the list created in point (1) of this framework. Further continuing on the above framework for insights to opportunities:

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3. Build hypotheses

from the above mapping and tie it back to the users. Starting with an assumption of ‘if you do A’, what will be the impact on the business and user experience with the product.

Examples of good hypotheses are:

‘If we improve the loading speed of our website, our bounce rates will decrease by X% because users will not become frustrated with slow loading times.’

‘If we simplify our checkout process by reducing the number of steps and eliminating unnecessary fields, our conversion rates will increase by X% because users will find it easier and more convenient to complete their purchase.’

‘If we simplify our subscription process by offering fewer options and eliminating complex pricing structures, our conversion rates will increase by X% because users will find

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it easier to understand and select a subscription that meets their needs.'

'If we provide contextual help and guidance throughout our web application, our user error rates will decrease by X% because users will have access to the information they need to complete tasks successfully.'

You will notice that I have X% written in all the hypotheses, it's not a placeholder and has been put intentionally. Keeping it as a placeholder at this stage, helps you focus more on the user problems and pain points. We will cover in Chapter 4 on how to put a quantifiable number to each of your hypotheses instead of X% that will help with your prioritization process.

4. Validate the hypotheses

by conducting surveys, user interviews and market research as needed. When thinking of research, take into account

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different user segments (as defined earlier in Chapter 1),
demographics and any other segments that may be relevant
to the types of hypotheses you are trying to validate.

Now you may start to see why we needed to build hypotheses from insights and friction mapping, so we can be more structured when trying to understand the ‘why’ of the user behavior in user interviews. At the end of this you should have captured enough quantitative and qualitative data to have a strong list of opportunities with validated user pain points to incrementally scale your product. Next chapter will cover how to identify if these opportunities are worth investing company resources on or should we think about mass scaling directly which will be covered later in this book.

CHAPTER 3

Assessing Investment Worthiness

What does investment worthiness really mean?

As product managers, you will be continuously and frequently evaluating whether the problem you are trying to

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solve is worth the potential risks and costs associated with building that feature in the product such as development and experimentation costs, marketing expenses, legal or regulatory hurdles. This step is crucial as while you may want to launch all different features, you want to build a good investment sense on which ones will give you the maximum return of investment in terms of solving user pain points while achieving business goals.

This not only builds better products but helps you align with the stakeholders, executives and leadership when you ask for resources or share the overall plan to scale an established product.

Let's go back to the list of validated opportunities you created in the previous chapter. Now we will follow the following framework to decide if they are worth the investment.

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1. Start with ‘Why this’

I know we just did that in the previous chapter and I am asking you to think about it again. This time, it's time to think about the second piece of the investment worthiness triangle (Fig 1) business perspective. As you can imagine, at any given time you may have a hundred items you want to solve for, but mostly they can be largely categorized into three business objectives for established products:

- Metric Mavens
- User Satisfaction & Delight
- Product Quality

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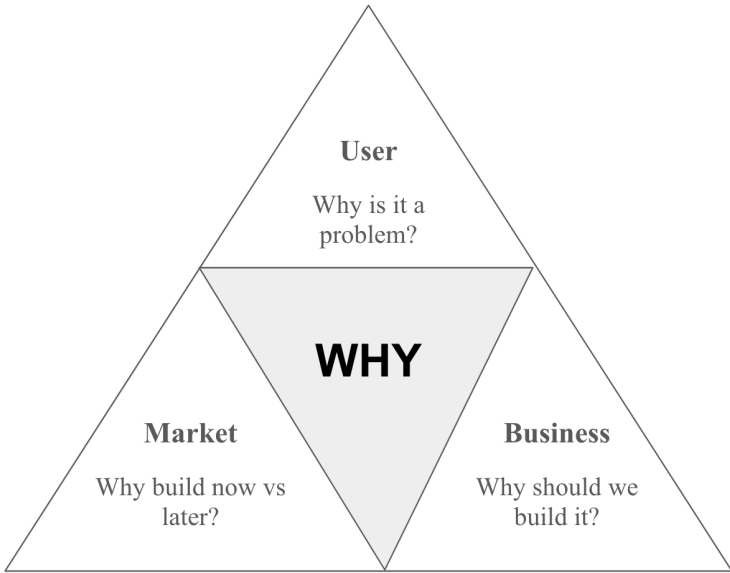


Fig.1 Opportunity Triangle of ‘WHY’

Before diving into each of these, it's important to call out that (1) even though these may be generic categorizations a business may have different requirements or priorities at any given time due to market trends or business needs. So make sure as product managers you are completely in sync with your executives, leadership and stakeholders on what the overall vision and goals of the business is for the

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product both in the near and long term timeframe, and (2) have a calculated analysis and plan ready to evaluate the success if the feature is launched. This will vary vastly depending on the business goal that user problem/feature lies under.

Metric Mavens

Metrics are a critical part of measuring the success of a product or business. They allow product managers to track performance, identify areas for improvement, and make data-driven decisions. Key performance indicators (KPIs) are specific metrics that are used to measure progress towards specific goals or objectives. Examples of KPIs might include metrics like user acquisition, retention, engagement, funnel conversion rates, and revenue.

Metric Mavens are those product features that have a significant impact on these KPIs. For

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example, a social media platform might identify user engagement as a critical KPI. They might analyze their data and user feedback to identify features that have a significant impact on engagement, such as a newsfeed algorithm that shows users the content they are most interested in, or a gamification feature that rewards users for their activity on the platform. Another example, a content platform may identify trusted information as a critical KPI and might prioritize features that help not only build that trust with users but policies in place to avoid any spam or privacy concerns.

It's important to note that metric mavens will vary depending on the specific product and business. For example, a B2B software company might prioritize product features that improve user productivity, while an e-commerce company might

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prioritize features that reduce shopping cart abandonment.

It's a common misconception that some features are aimed to only move metrics, which may be true in some cases but solving user pain points is one of the easiest ways to move metrics as if you think about it what do these metrics measure - user retention, acquisition, engagement. These can't be improved without improving the user experience or providing them with some value.

So now you can look back at your list from the previous chapter and evaluate if any of those would be potential needle movers for the business. I will cover later that any opportunities can satisfy more than one business goal, more the better.

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How to evaluate success for Metric Mavens?

With Metric mavens it's easier to quantify the success. As by this point, we have already mapped which metric goal these would impact if launched, we can do a calculated sizing of the opportunity.

These will help you making tradeoff and prioritization decisions later.

With established products, a big advantage is you have all the data available for you to do a close to reality estimate of the impact of the feature. Remember the $X\%$ placeholder impact that we kept putting in our hypotheses in the previous chapter, now I will share how to actually quantify that number to complete your opportunity impact. A general framework I use for any opportunity sizing that $X\%$ is:

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- Think of the primary metric you want to move and the impact it will have on business objectives as a secondary effect. For example: your primary metric can be more users tapping on a button in the signup flow and moving that by Y%, will lead to the secondary effect of X% more users acquired on the app.
- Who and how big is the target audience? This is where ‘user segmentation’ done in Chapter 1 will come in handy.
- Filter down to the traffic/audience size for the specific flow or action you are trying to change.
- Pull up the status quo numbers of the actual metric you want to move with that feature.
Examples include:

- Click through rate

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- Two week user retention
- Number of users finishing the flow
- Number of posts made.
- Up until now, all the numbers you have are real numbers from status quo experience.
Next step is where you need to get creative as now you are trying to estimate how much impact will this change make? To do that you can look at
 - market standards of the metric
 - competitor performance if publicly available
 - previous experiments in the similar vein that showed an impact
 - If no data is available, I would still urge you to make a calculated guess and call that out.

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- Lastly, tie the increment assumption back to the overall business objective metric identified in the first step. And there you have it, you have a quantifiable number assigned to the X% in your opportunity hypothesis.
- As a safeguard, think of any risks or negative effects you could have any other core metrics of the established product.

Let's take a hypothetical scenario of a company trying to increase user engagement on the product and thus revenue. Taking it step by step:

- Primary metric for user engagement can be the number of daily active users on the platform and increasing that number as that would reflect more users are engaging more frequently. For the secondary effect, we consider revenue. Based on historical data

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trends we know daily active users to revenue increase ratio is 2:1.

- We pull the numbers and current daily active users a 5 Million and revenue is \$10 Million/month.
- We think with this feature we can encourage the power users to be more engaged which are 20% of 5 Million so now our target audience is 1 Million.
- Based on market research, we estimate we increase this number by 10%, that's 100K additional daily active users.
- With the initial conversion rate, we anticipate additional 50K revenue/month.

User Experience and Delight

User experience and delight is usually a strong business objective for most established products as

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by this time the product may already be providing some value in the form of content, connections, or productivity to the users and it's likely that you have competitors. So how to keep users engaged on your product? Bringing not only value but an enhanced and positive experience to the users.

By going beyond the basic functionality and offering something unique and delightful, product managers can create a loyal customer base that enjoys using their product. One of the primary benefits of user delight features is that they create a positive emotional response in the user. These features can surprise and delight users, creating a sense of joy and excitement that makes them feel more connected to the product. For example, a product that offers personalized recommendations based on a user's interests can make the user feel understood and valued.

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Sometimes delight is confused with bright animations and confetti in the product and while those are definitely some surprise elements that can add to it, an enhanced user experience is often simple and intuitive with least friction so users can get value or finish a task in the product with minimal cognitive load.

Time now again to look at the opportunity list from the previous chapter and start labeling the ones that would add to user experience. Generally, the best candidates for these are from the ‘cognitive friction’ section of the pain point analysis as that’s where users get most frustrated and leave the product.

How to evaluate success for User Experience & Delight features?

Since user experience and delight features often rely on subjective improvements on how users feel about

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the product, it can be difficult to measure it in a tangible way. However, there are ways to measure it qualitatively for a short term impact and quantitatively for a longer term impact. Qualitatively:

- Conduct surveys, interviews, and user testing to observe how users interact with the product's delight features and gather insights on their emotional responses. This can involve tracking user facial expressions, body language, and vocalizations during testing sessions.
- Gather feedback through various channels, including in-app feedback tools and social media.

Quantitatively the impact is more long term as once a user starts to be more positive towards the product, they tend to retain. Few ways to measure it:

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- Did they use the feature frequently? Did it increase the time spent on the product?
- Measure whether the feature had a positive impact on long term user retention.
- Did users become more likely to recommend the product to others, you can measure it through comparing Net Promoter Scores.

Product Quality

Often overlooked, one of the major reasons for users attrition is a bad quality product that goes beyond the visual interface or providing value. Imagine as a user, you really want to use a product as you have a strong need for it and have an easy visual experience, but whenever you use it it keeps crashing without any information or just takes forever to do a simple task. Unless there is no alternative, you would discontinue

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using that product. That's why this area needs special attention from product managers.

With established products having gone through multiple iterations, product managers, engineers, designers its not common to have an overcrowded product with multiple features but the product itself doesn't look cohesive or maintains a high bar of quality. Some common scenarios are:

- Lack of error handling or reporting to fix issues
- Making sure not just happy paths but unhappy paths are also frictionless
- Can be as simple as removing legacy

With the three business objectives Metric Mavens, User Experience & Delight, and Product Quality understood, let's switch gears back to the framework in the chapter.

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2. Why Now?

Till now we laid out the ‘why’ of the user and mapped it to the ‘why’ of the business. It's time to tackle the third and last ‘why’ of this triangle (Fig.1). You have a strong opportunity laid out but is it the right time to build it? Some reasons for building now could be:

- Demand: There has been a sudden influx of demand from users through user interviews, feedback cycles to launch the feature now.
- Competition: If your direct competitors have launched a similar feature or being the first to market will give you a huge market share.
- Market: If new technology or trends have been in the news recently, and you want to stay on top of the latest technology for your users.

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- Revenue: If the feature will lead to significant wins in metrics or revenue for the business that you want sooner than later.
- Resources: If you have a feature that needs a specific skill set and that resource may not be available in the future.

3. Overall plan beyond one project

Last piece of this framework is to think beyond if a project is worth the investment. Is the overall investment plan working towards your goals? This is crucial as you want to make sure that not just individual projects but an overall roadmap has a vision and a story to how it comes together.

Otherwise you will end up with decoupled features which make no sense altogether.

ASSESSING INVESTMENT WORTHINESS

Based on the stage of the product, I use this model to adapt investment of my time and resources in three areas:

- High confidence, High Impact features, these are the ones where we have tried things before, seen wins and have enough data and confidence to trust in the potential impact of this work.
- Low-Medium confidence but high impact if successful, where we have done some research, user interviews and analysis and have some confidence in the need of this feature but nothing has been proven yet.
- No confidence in exploratory projects, this is the north star area where the work here may not even be relevant in the immediate term but will put the product as a leader in next two to three years.

ASSESSING INVESTMENT WORTHINESS

With this model, we can make sure that product is doing well to serve their existing customers and business objectives while also making ample time to innovate and think about what's next.

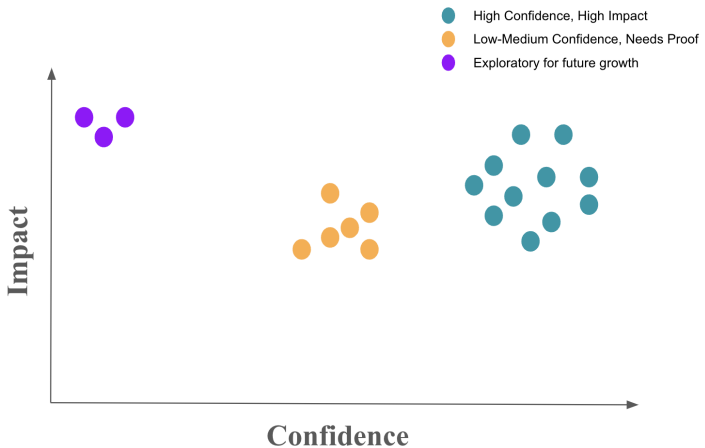


Fig 2: Growth Stage - Possible investment ratios

How much time you invest in each of these areas are dependent on the stage of the product. Let's consider a product in the growth stage where the company has found its product market fit, and is now looking to expand its customer base and revenue and

ASSESSING INVESTMENT WORTHINESS

achieve market dominance. Their investment ratios could look like (Fig.2) where 50% of the focus is on high confidence, high impact projects to continue to retain and users; 30% on medium confidence projects that have shown research direction but need proof that they can attract more users on the platform; and 20% on future growth work as the product is more focused on immediate growth.

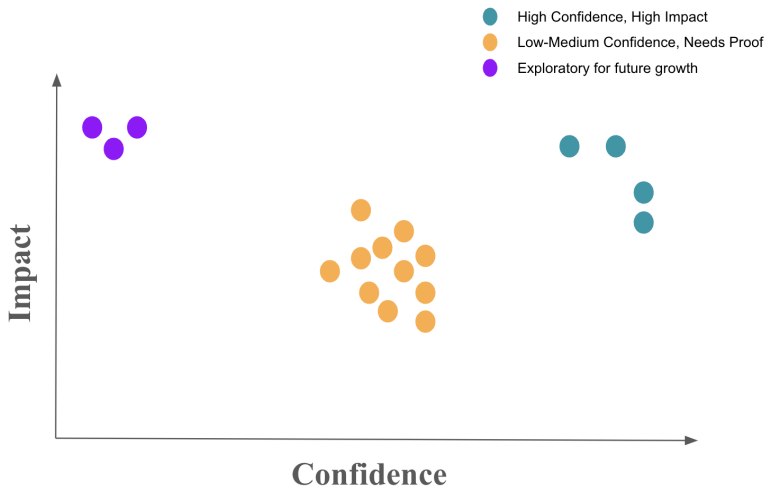


Fig 3: Expansion Stage - Possible investment ratios

ASSESSING INVESTMENT WORTHINESS

Similarly, investment ratios could look different for products in the expansion stage where the focus may be more on medium confidence efforts in other markets (Fig.3) and mature products where efforts may be more on exploring futuristic work as they have already achieved product market fit and dominance. (Fig.4).

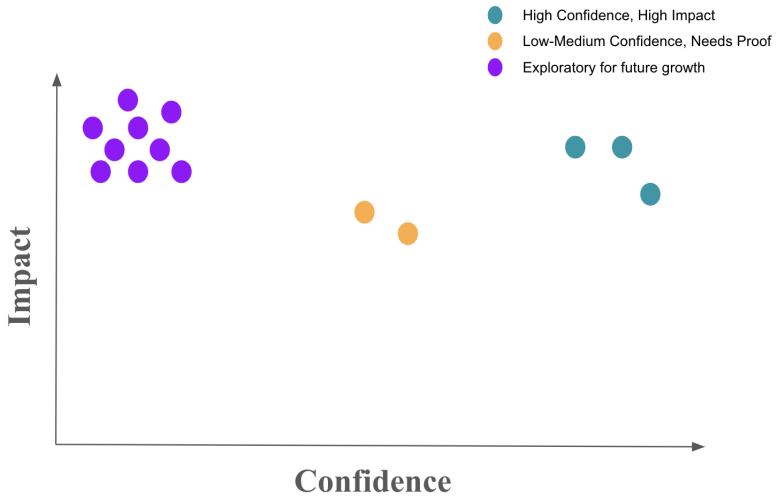


Fig 4: Mature Stage - Possible investment ratios

ASSESSING INVESTMENT WORTHINESS

Now you may start to see why we needed to think first about each of the opportunity's investment worthiness and then think holistically about the investment plan. At the end of this you should have a strong plan to be shared and executed with your stakeholders. Next chapter will cover how to think about not just improvements but mass scaling of the products.

CHAPTER 4

**Scaling for Mass
Adoption**

As shared earlier, product goes through multiple stages from first trying to achieve product market fit, to

SCALING FOR MASS ADOPTION

growth stage, to scaling to maturity. With the frameworks shared in the previous chapters, you should be able to continuously find opportunities for growth and evaluate investment. This will help with both user retention and acquisition but may not at a large scale.

When a product reaches a stage that we are looking for scaling to the masses, that's where we start focusing on more exploratory areas to expand to other markets (Fig.3). This chapter will cover what are some of those areas to think about and how.

At a high level, I will categorize these as:

1. Horizontal Scaling: Expanding a product's capabilities by adding more features or functionalities. It involves broadening the product's scope or addressing a wider range of user needs.
2. Vertical Scaling: Enhancing a product's existing features or capabilities to provide a deeper and more

SCALING FOR MASS ADOPTION
 comprehensive experience within a specific area by
 focusing on improving functionality rather than
 broadening its scope.

Let's look at the differences in detail in the following (Table 1):

	Horizontal Scaling	Vertical Scaling
Scope	Add more functionalities, new user base, industry segments or product lines	Enhance the existing functionality for a richer experience
Market	Expand to a new market or a country or region	Become the expert and a go to solution in

SCALING FOR MASS ADOPTION

		only one market
Users	Attract and capture a new user segment by providing a new value that was not on the product before	More personalized and deeper features to assist the existing user base.
Complexity	Product can become very complex in tailoring to different user bases and market segments and can end up with too many features and overwhelmed product	
Branding	Broad marketing	Branding is more

SCALING FOR MASS ADOPTION

	strategy to increase user acquisition in new segments	on trust, credibility and loyalty to the customers
Team	Need a diverse product and development team in terms of experience, skill set and locations specific needs	Experts with deeper skill set in one area
Business	Growth can be exponential by tapping into a new market	Slow and steady customer base with more positive impact on retention

Table 1: Difference in Scaling in Product Management

SCALING FOR MASS ADOPTION

Horizontal Scaling

Let's deep dive into some popular ways to do that:

1. Geographically

When planning to tap into new cities, regions or countries few areas to consider:

- Do market research to identify which regions have a demand and high potential target for your product. Consider similarities in the existing market, validate by launching beta versions of interviewing users from that region.
- Tailored brand messaging and tone that resonates with the local audience of that region, target local influencers and social media experts to create awareness.

SCALING FOR MASS ADOPTION

- Localize the product not only in terms of local language, user interface but also payment and shipping options if applicable
- Familiarize yourself early with any compliance, legal or privacy regulations that may be particular to that region.
- Consider cultural differences and be sensitive to any local norms or practices in your messaging to avoid any offensive language.
- Collaborate with the infrastructure team to prepare for the increased traffic and sessions.
- Explore strategic partnerships with local players in your domain if they have already captured some market and you can get an advantage by partnering with them sooner than later.

2. New user demographic

SCALING FOR MASS ADOPTION

Let's take Generation Z as an example for scaling your product. Although some of these are relevant for all user demographics, it's important to note them:

- Authenticity and transparency about product value and offerings helps build trust in your brand from these users.
- Create personalized experiences based on user behavior and patterns.
- Trust in community and real people and make them aware of that.
- Meet them where they are: mobile and visual first.
- This user demographic heavily leans towards purpose driven products so bringing transparency to your mission.
- With too many products out there, attention span can be low so look for ways to provide instant gratification.

SCALING FOR MASS ADOPTION

- Nothing more frustrating than an infinite spinner in an application, so providing a seamless and high performing experience is a must.
- Stay on top of industry trends as this user demographic is quick to adopt.

3. Strategic Partnerships

Consider partnering with another company if they have established themselves in similar or parallel product lines. This can give you a step function advantage in the market. Things to consider when looking at potential partnerships:

- Look for partners that could compliment your product and value proposition and merging won't be confusing to the users.
- Validating there is a mutual benefit for both parties and making it clear to the potentials.

SCALING FOR MASS ADOPTION

- Explore collaborative marketing strategies
- Evaluate with the team the integration and development cost and possible technical and brand risks.

4. Parallel Product Lines

Explore expanding yourself in parallel areas like if you have dominated iOS for a particular market need, expand to Android to get a bump on your user base. Similarly, if you have captured one industry segment, for example flight bookings, consider expanding to hotel stays and car bookings as there is a high likelihood of overlap from the user. It will not only bring convenience to the user with everything in one place, it opens up completely new revenue streams for the business.

Vertical Scaling

Taking the above example of a product that offers flight bookings, vertical scaling for that would give every possible functionality to the user related to flight bookings so they have a richer experience and don't have to go anywhere else.

Examples of functionalities:

- Flight Search
- All partner airlines
- Filters and date flexibility
- Visa and travel requirements
- Comparison and rating of different airlines
- Add personal preferences for the flight
- Change/Cancel bookings
- Data generated price recommendations
- Flight suggestions based on user preferences
- and many more....

CONCLUSION

We delved into the process of transforming insights into actionable opportunities by categorizing and addressing friction points that hinder user experience. Building on these insights, we learned how to formulate hypotheses and test them to validate their potential impact on the product. Assessing investment worthiness became a critical focus, and we examined frameworks such as the Triangle of Opportunity Sizing and the 50-30-20 framework to make informed investment decisions. By understanding the

optimal allocation of resources, you can maximize the value and impact of their investments.

The book also emphasized the significance of scaling for mass adoption. We explored both horizontal and vertical scaling strategies, empowering product managers to adapt their products for wider market reach and accommodate growing user demands. By embracing a data-driven and user-centric approach, product managers can confidently make informed decisions, optimize user experience, and drive sustainable growth.

*How do you get to the so-what of the data?
How to decide if a product problem is worth investing in?
How to scale a product gradually for mass adoption?*

'One to Hundred' offers a comprehensive roadmap for product managers to grow any product. From laying the foundations for product success and gathering crucial data insights to identifying opportunities and building hypotheses, each chapter equips you with actionable techniques.

The book delves into frameworks like 'Triangle of Opportunity' and '50-30-20' for assess optimal investments. You'll gain a deep understanding of why and when to invest in your product, ensuring your resources are allocated effectively to achieve maximum impact.

Written concisely, it offers practical, thought-provoking insights that will help tech product managers navigate the challenges of scaling any product.

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