Product Primer

A Starter Guide to Building Great Products

Table of Contents

Product Primer
A Starter Guide to Building Great Products

Introduction

Welcome to Product Primer – *A Starter Guide to Building Great Products.* The primer presents a collection of theoretical frameworks and practical methods for building products - empowering you to build great products that serve a purpose and solve real problems.

Product work as a skill and as a craft is essentially problem solving at different abstraction levels, with varying levels of detail and varying lengths of iterations. The Product Primer splits product work into three levels, which are addressed in the three main chapters:

- Why - The purpose of the product: Finding the key value proposition

- How - Keep focus in the right things: Turning purpose into practice

- What - Solving users problems by building meaningful solutions
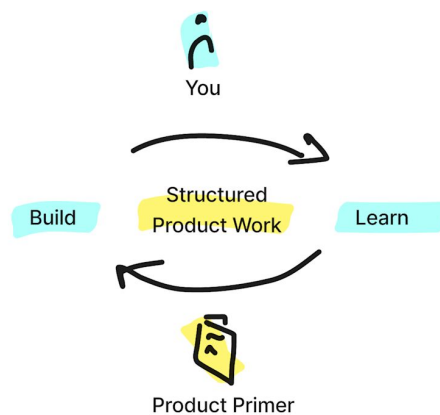
This Product Primer is designed to guide you through the practices, structures and thinking frameworks that allow you to focus on the outcomes, building a great product and learning how to make it better.

From the Author

I have nearly two decades of experience in building digital products. Some of the products I've put my work into have achieved success through strong business outcomes, positive user sentiment, or prestigious awards. I've also witnessed the rapid downfall of a business giant and the demise of a nearly successful startup. Throughout these varied experiences, one common thread remains: the commitment to building a great product.

Now before getting into the main aspects of building a great product, I'll lay out some of my main principles for successful product building in the next chapter. Let's get started!

-Aapo Kojo

Main Principles
Embrace the Routine

Product work is the process of finding the most impactful things to deliver. Here are three main principles to follow to make sure you keep doing impactful things.

Focus on the Outcomes

Start from the business problem and what is the *desired outcome.* Whether it's expressed as a visionary future state, a press release or numbers to achieve in the product's key metrics, you can work from the outcome backwards to map the path that leads you there. All work and decisions along the way can and should be reflected against the outcome. Mapping the path to the desired outcome helps you see where you are making the biggest leap of faiths that you need to validate in real life as fast as possible.

Discover the path

Here and now

Desired Outcome
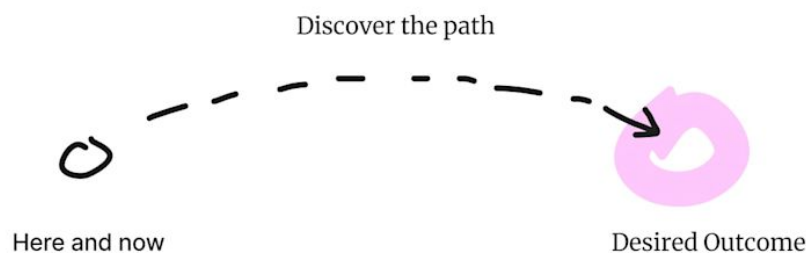
A Continuous Process

Product work is not a one-off thing; gather market and customer knowledge at the beginning of starting something new, and that's it. It is a continuous and parallel process to delivery, aiming to constantly maximise the impact of product development. It is advisable to have a separate and a routine process for product work, which then feeds into the delivery work with the same cadence. This should not be considered a process with hand-offs, rather the same team or a subset of the team working on two different aspects: first, finding the most pressing problems to solve with most impactful solution and then delivering the solution.

Discover the most impactful solution

Deliver the solution

Desired Outcomes
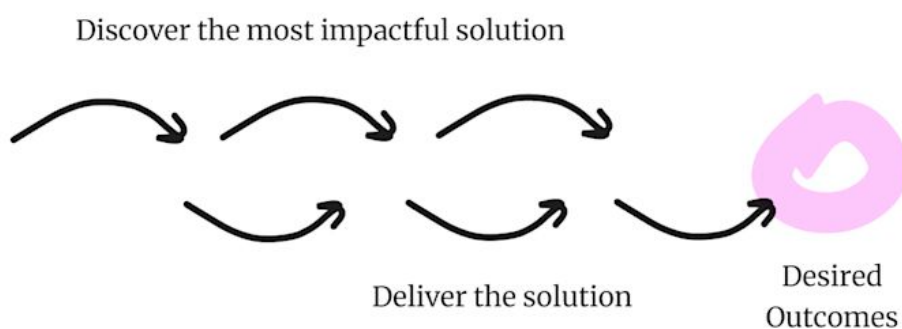
Uncoupling the product process from the delivery process gives you more freedom to explore the problem space and consider alternative solutions beyond the boundaries of the existing delivery team structures. This process can and should happen at all lifecycle stages of a product. The same techniques can be applied in different contexts; launching a new product, extending the product to new markets or distribution channels as well as iterating on new features for an existing product. Depth and duration of the product work depends on magnitude of the expected impact and the investment appetite. Instead of reinventing the process every time

building something new, big or small, the key is making this work a routine process, which you can then modify based on specific needs.

Talk to the Customers
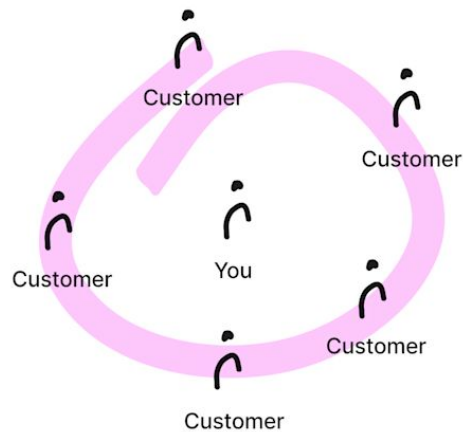
This can not be emphasized enough: keep a direct conversation open with your customers at all times. Direct customer conversations keep you aligned with user problems, jobs-to-be-done and how your product is being used and experienced by your users as your product, market and users' behaviors evolve.

"Get out of the building"

-Steve Blank

For your product's success it is essential for you to go out there, physically and metaphorically: talk to the customers, observe what they do and validate your business and product assumptions continuously. Don't let your past knowledge hinder your curiosity to constantly gather new knowledge.

Why - The Purpose of the Product
Finding the Key Value Proposition

From User Needs to Market Understanding

Ultimately, every single product can be reduced to a specific user need, and hence to an individual user. But to increase the chances of making product that can succeed and gain growth, you need to find out if there is a critical amount of users that have that specific need, which can be better met with your product, and isn't served well enough with anything else out there. Chances here though are against you - there is already very likely a product or a solution the user is equipped with to tackle their problems and to fulfil their needs. Don't underestimate the cost of switching a product - your product's unique value must outweigh the cost of switching from an existing solution.

The space where you are working in, could be anything from enhancing the mobile experience for brick and mortar stores selling to online marketplaces, building a platform for short form content creators or building tools to organize the work for reachtstack drivers in a container ship terminal. Whatever the context is, your intended product will be competing with existing ways of working, established habits and products already available at the market - be it your own or your competitors - from which the users need to switch to using and paying for your product or service.
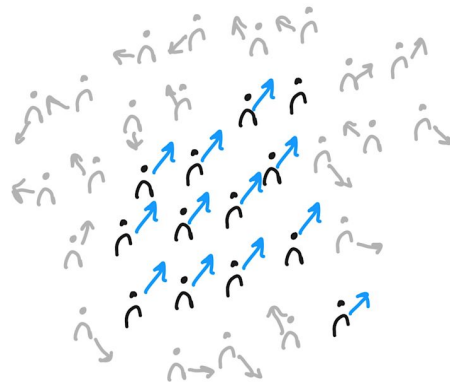
Assess critically if there is a large enough audience for your product, which is currently underserved in the market? Can the new product offer them something that isn't offered by anything else out there? Is the product compelling enough to get large enough audience rallying behind my product? Finding the unique value proposition for your product that fits the current market is essential.

Finding the Unique Value Proposition

What are the elements of the product you're building that are directly competing against the existing market? What are the users' existing expectations from a product in the market? What is the job that users are trying to get done with the products they use? What are the elements of my product that provide unique value other products currently can't? Frameworks, like the Blue Ocean strategy framework, or the customers needs and jobs-to-be-done -focused thinking of Clayton Christensen on Innovators Solution, can help you frame your product idea and solution against that existing world, where your users are interacting with existing solutions provided by incumbent companies in the market, to find the customers' unmet needs and the potential to create new innovations.
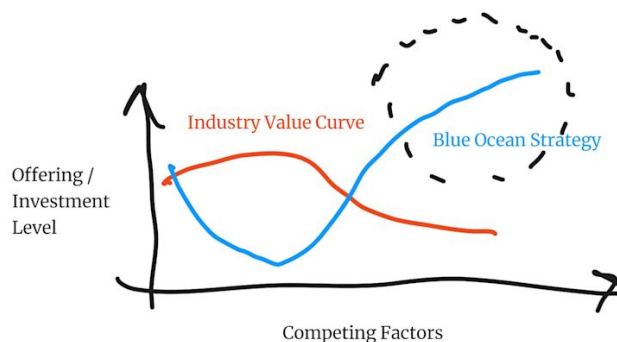
Different product strategy frameworks help you identify where the current industry competition and investments are the highest - where you should do the minimal investments to offer a minimal level of service, and instead put most of your investments into the areas of your product where you create value beyond what is currently available in the market. If you can't find that competitive edge from your product, chances are users will not choose your product over the product or solution they already use.

As a result of work done for market understanding and user needs and the key value proposition, the product's purpose could be stated for example as *Travel Companion for Airline Travelers* for a mobile app for an airline or *Delivering Tomorrow's Digital Service Visions Today* for an agency building digital services for airlines or *The number one online destination for fashion* for an online fashion marketplace. Based on the maturity of the product or the service, this typically doesn't change much over time. When creating a completely new direction and purpose for the product, it is often considered a pivot. This could be a result of not finding enough growth with the existing product, a significant shift in the market or a new competitor entering the market and changing the game.

Blue Ocean Strategy for Building a Mobile App Supporting Digital Services for an Airline

Most airlines have at least one primary use case for their businesses; fly planes between destinations and sell tickets to fill the planes with people and then sell extra services to those with no or very low operational costs. Hence, building a digital service for an airline is very likely going to enable those use cases: users can buy tickets and users can buy extra services - which indeed are mostly present in airline websites and apps.

When tasked to build a mobile app to an airline, we wanted to look beyond those primary business use cases, and see what are the users jobs-to-be-done in the context of that airline, and what are the specific jobs that a mobile app could support the users with? At the time, the airline was already running a successful business of selling tickets and extra services, so clearly those weren't needed per se, as users already had a solution for those primary cases. But what users *didn't have,* was the right information at the right time, before and during their journey. The information was scattered in onboarding emails, informational websites and just-in-time text messages. During the hectic and sometimes stressful times of catching a flight, finding the relevant information at the right time was hard.
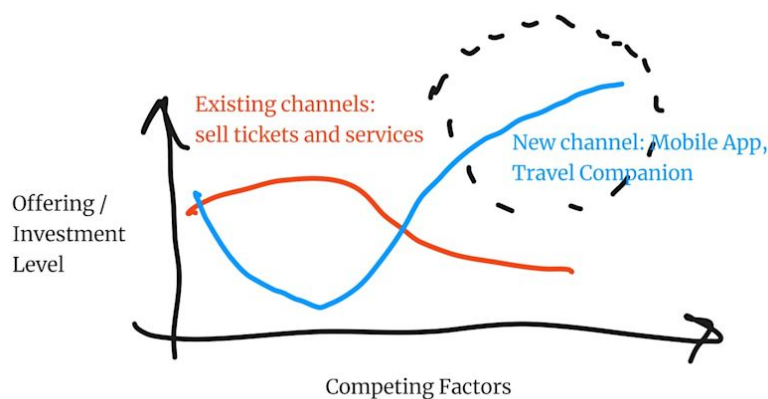
From understanding the airlines existing channels and services provided joined with the business's and users needs, a guiding principle for the app became *Travel Companion - Provide the right information and right services at the right time.* Mobile app was the perfect vehicle for bringing contextual information and services to the users where they were, when they were. It is always available for the user and allows pushing time-critical information to the user in real-time, when user actions are required, like "now is a good time to head off to the airport". It *also* supported the airlines main use cases, buying tickets, but at minimal investment. It also included selling extra services - but at the right time when the user more likely had the need for that given extra. The main investments in the app were made to an under-served user need, making it a *true travel companion* that was adopted by the users as 80% of app users used it throughout their entire journey.

Using Playing-to-Win Framework for Finding a Product-Market-Fit

While working in a consulting agency, we had built world class and Red Dot award winning in-flight entertainment systems and mobile application to one national airline. Through that work we had learned what players there are in the industry, what they offer and how they work, and we saw an opportunity both how to drastically improve the user experience and business opportunities especially within the in-flight entertainment systems as well improve the way software building loops can be made significantly faster in the industry. We wanted to scale for more clients internationally.

We started looking at our consulting offering for airlines through the 'Playing-to-Win' strategy framework, where we focused at looking both what was the unique value proposition we were able to offer and what were the characteristics of a potential airline client for our offering. We had learned that timing was essential, as building new in-flight entertainment systems was dependent on the airplane fleet updates but additionally it was dependent on the ambition level for an airline to invest into digital user experiences. The industry also had it set ways of buying software, and it was not an easy task to approach new clients as a local boutique consulting agency.

As a result we did two major changes. We shifted from targeting all major airlines to targeting selected clients with higher potential for investing into digital user experiences while upgrading or updating their fleet with technology familiar to our expertise. We went from a generic offering, as usual for a consulting agency but less familiar model to airlines buying software, to offering a more specific and tailored product, geared more towards the industry standard of purchasing software as products. We set a few clients as *North Star* clients to pursue as a measure of success, and also started spreading a clear message of our specific offering through trade shows and industry conferences. We customized our product offering to fit our target clients, based on their upcoming fleet upgrades. Within a year from our focus shift we had started a project with one of our North Star clients as well as had project negotiations ongoing with two large clients to be started on schedule with their upcoming fleet renewals.

Key Takeaways

Your product does not operate in a vacuum. Understand where the market is and what needs users have - which are already solved by one way or the other, and what expectations users may have. Find out who really are your target customers, what is the minimum you need to invest to match the existing solutions on the

market and put most of your bets in the competing factors other solutions don't offer for your intended customer segment.

Inspiration and Further Reading:

- The Innovator's Solution: Creating and Sustaining Successful Growth by Clayton Christensen
- Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant by W. Chan Kim, Renee Mauborgne
- The North Star Playbook: The guide to discovering your product's North Star by Amplitude
- Playing to Win: How Strategy Really Works by A.G. Lafley, Roger L. Martin

How - Keep Focus in the Right Things
Turning Purpose into Practice

From Purpose to a Plan of Building Your Product

For building a product, you need more than an idea and a purpose. A plan, in the form of a sound product strategy, to take your product's purpose to practice. Your product strategy should answer at least the following questions: Why should your customers care about your product? Who are those customers? How does your product fill the gaps in the market? How will you measure success? What do you need to build and do you have the expertise and resources you need in order to build that? How do you validate what you are building is taking you towards the desired outcomes and towards success?
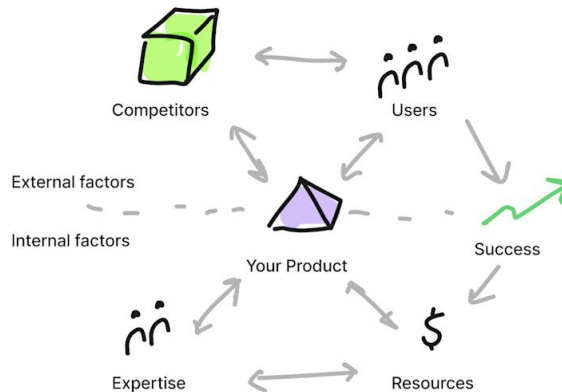
For delivering a product you need the right expertise and resources aligned against your product's purpose and vision, a plan how the purpose manifests itself as a product. While a product's purpose is to be a *Home for video meme creators,* in practice it means providing video meme creators a place to share their content for consumers to watch in multiple devices and platforms, ways to engage with their community, and a system to earn from their content, in a way that suits their content type and style.

Building a Home for Video Meme Creators

Short-form video content creators, still to date, are struggling with monetising their content through the platforms they distribute their content on. Platforms themselves are monetising from the content, while content creators often aren't fully part of the equation. Through the founders passion in the scene and from the existing video distribution platforms we identified a specific niche, video meme creators, which were generating a lot of views, but getting very little monetary compensation on those views, because of how the platforms' revenue models were designed.

Defining North Star Metrics to Drive the Practical Work

The structure of building a *Home for video meme creators* was reduced to two main goals; different sides of the platform were turned into operational goals: time and amount of videos users consume and engage with on the platform, and the amount of ads watched resulting in revenue for the creators. It is evident that the more videos are consumed, the more ads can be shown, but pushing too many ads to users will adversely affect the video consumption - and furthermore retention and revenue. The magic formula balancing these two came from understanding the levels of revenue we needed to generate for the creators to be a viable option for the existing platforms.

North Star metric on the consumer side became the content consumption, *lifetime view value* or LTVV as a metric for consumer satisfaction and retention. Revenue per views became a North Star metric for the content creators side - a metric familiar from other platforms, guiding our targets.

As a counter measure we used a concept *failed session* - if a user didn't watch at least one video on the platform during the session, it would be considered as failed session - as we couldn't deliver the main value proposition for the consumer; viewing video memes. Hence a user only watching an ad during a session, while

good for the revenue in the short term, would be considered as a failure to deliver value to the consumer. These all together provided our product development goals and guardrails to reflect the work against.
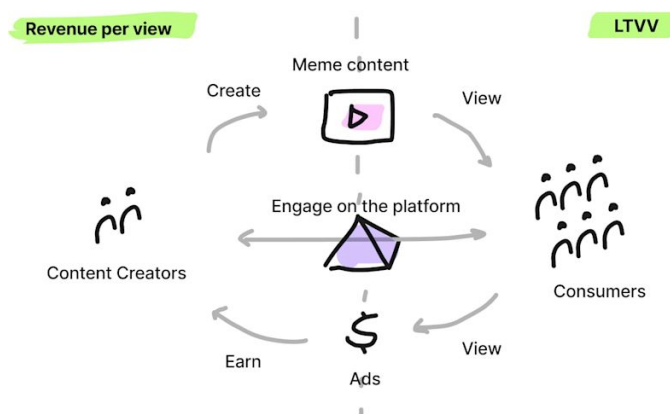
While we couldn't immediately match the virality and views provided by the incumbent platforms, we were able to create a home for their content and core fans and generate 2-3x the revenue they were making on the incumbent platforms - if they were making any at all to start with.

The Right Expertise and Investing in Technology That Matters

Our advantage over the incumbent platforms was the focus we put into understanding the intricacies of the content type and serving those specific needs, like showcasing video meme trends. Our team was equipped with the most influential content creators and people focused on managing relations with them as well as providing us the needed growth in our creator network.

From technology point-of-view we were geared towards optimising the video delivery costs for that specific content type, for advertising we focused on the mechanics. Further revenue optimisations would only follow should the mechanics work. For everything else we leaned towards standard industry solutions and other functions were managed as someone else's side job when needed. Processes, technology and people were all aligned with the product strategy, resulting in a team that was nimble, moved fast and had just the necessary skills to build just the product needed.

Scarcity Is the Best Driver for Prioritisation

Working at startups has been very educational on what scarcity means. You have a finite budget that you are burning at a certain rate, depending on your team size and the bills you pay to keep your product operational. You work against time to either make your service and product pay for the burn rate and the bills, or convince an investor to provide you with more budget, allowing for additional time to make your product pay the bills. Once the budget runs out, you are out of business.

Scarcity forces rapid iterations with an aim to make as much impact as possible. Whatever the context you work in, bring as much visibility into the operational costs and revenue streams as possible, to make the scarcity feel tangible. Working without any resource boundaries is almost a certain recipe to spending time on lengthy feature projects without tangible outcomes.

Scarcity can be simulated with wise time-boxing. In my experience, a recommended time box or cycle time for building features is an industry standard of 2 weeks, which gives ample time for building meaningful things without too much overhead on changing context. During those two weeks of focused delivery time, do the required product work to find what to deliver next. Respect the time boxes. If scope starts to creep, assess what is the desired outcome and what shortcuts can be taken to reach those outcomes. If more effort is required, consider carefully and make a conscious decision, whether the added cost for pro-longing the work is justified.

Bundle the two week periods into three or four 6-8 week cycles, which are focused on specific goals, using for example Objectives and Key Results (OKRs) to walk the path how your expected impact on delivery will link to your North Star or product vision. Between these longer cycles, also assess your products most essential

focal points and whether you are equipped to build the solutions with your existing expertise, structure and resources.

Key Takeaways

Start with outcomes and focus relentlessly on the value you aim to deliver. Align your users' success to your product's success. When your product enters the market, competitors are likely to react and hence the market is constantly evolving. Make sure you have the expertise and resources to constantly deliver value unattainable with the competitors' products. Define routine product creation cycles that give you points in time to assess your direction, and are long enough for delivering outcomes.

Inspiration and Further Reading:

- The North Star Playbook: The guide to discovering your product's North Star by Amplitude

- The Star Model™ by Jay R. Galbraith

- Radical Focus: Achieving Your Most Important Goals with Objectives and Key Results by Christina R. Wodtke

- Shape Up: Stop Running in Circles and Ship Work that Matters by Ryan Singer

What - Building meaningful solutions
Solving Users Problems

Give Users What They Need, Not What They Want

Building solutions is about translating users' needs into positive outcomes, both for the user and your product, and essentially to your business. Don't ask your users what they want, try to understand what they need by talking to them and observing what they do.

Mapping Your users' Needs

To understand what you need to build, you need to understand how users are currently getting their jobs done. This can be done by for example journey-mapping, breadboarding or creating user flows. Whatever it may be called, the key is to listen to your users, observe what they do and see it for yourself. Going directly to the users help you both understand the journey the currently take, but also uncover the painpoints in the process and feel the users' emotions as they navigate through their tasks.
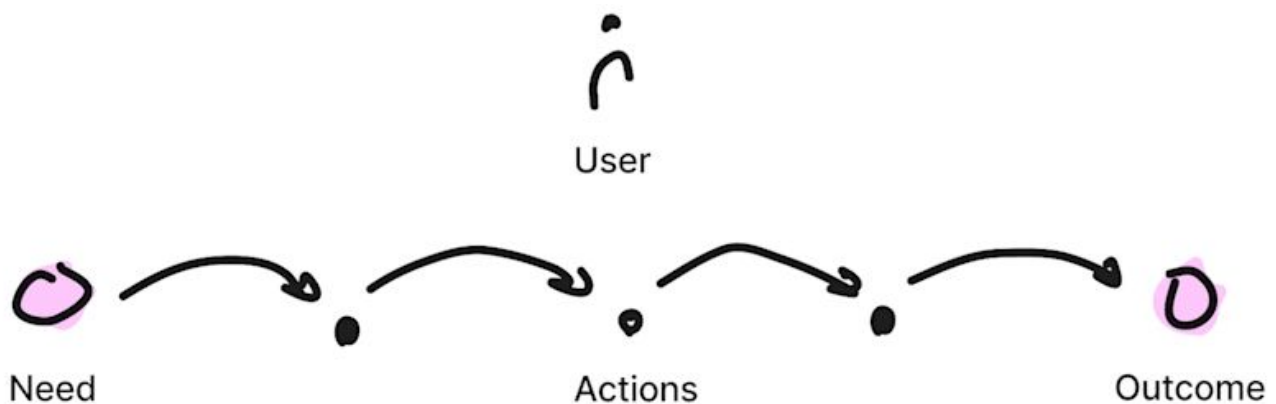
Understanding the user's journey in your own product will also help in building analyses on the users journey, or funnel, through the product. Data on the user funnels help you identify potential improvement points, and asking your users will give you insights on what may cause people not to proceed to the desired outcomes. Listening to the user's language also helps you adjust your product to fit the users thinking and mental models. Using an opportunity-solution-tree helps bridge the desired business outcomes to the users' journeys and help find the most impactful areas to address for solving users problems to achieve desirable business outcomes.

Mapping business and customer problems

Whatever the context, mapping business problems and customer problems can be done through the same means: understand the business through quantified data and talk directly to the customers to understand their context.

Problem	Business Problem	Desired Outcome	Customer Problem	Jobs-to-be-done
"Order management only on desktop web at the cash register" Building a mobile interface for online order management at brick-and-mortar stores for a large online fashion platform	Order fulfillment times from brick-and-mortar stores slower than from warehouses Higher portion of orders from brick-and-mortar stores aren't fulfilled at all because of inventory inaccuracies	Higher online order fulfillment rates with reduced order fulfillment times in brick-and-mortar stores	*Store personnel interviews and store visits:* Employees get congested at cash register during rush hours / sales periods Multiple different order fulfillment processes and devices	Primarily provide personal service to the in-store customers, offer as much product variety as possible Deliver the correct items to the online customers
"Passengers purchase flight tickets without signing in" Implementing a new frequent flyer program for a small airline	Low customer knowledge, as currently majority of purchases happen without proper customer identification	Higher portion of signed in customers purchasing flight tickets	*Passenger interviews after most recent trip:* Booking flights frequently does not give any benefits and requires the same steps every time	Spend a weekend in Berlin with the family. Attend a business meeting in Stockholm.

Finding the intersection of business and customer problems and the most impactful areas to address through opportunity-solution-tree gives you a *five why's* approach to go deeper into the customer problems below the immediate surface. Seeing how personnel in a brick-and-mortar store work in the physical space interacting with the in-store customers, walk between the cash register and backroom storage and fulfilling online orders in-between, gives a very clear picture of the every-day practical problems that lead to reduced performance fulfilling online orders - more so than speculating the issues in the comfort of your own desk.

Desired Business Outcome	Problem	Root cause	Product Assumption	Potential Solution
Fashion Stores: Higher order fulfillment rates with reduced order fulfillment times	Online orders are cancelled because item not found in store	Item was sold earlier to an in-store customer	Real-time online order notification reduces the risk of selling the item to an in-store customer	Push notification on mobile app from new online orders
Airline: Higher portion of signed in customers purchasing flight tickets	Sign Up not part of the online ticket booking flow	When sign up is found, current frequent flyer program not relevant to most customers	Providing an instant signup benefit will overcome the signup friction	Frequent flyer program revamp with a signup bonus for a reward usable on the first flight

In every different context, it is of utmost importance to not base your decisions on how you wish or think your product should be used, but understand the customers job-to-be-done, and address the customers needs and look at your product through their eyes.

For example airline passengers are not primarily looking to sign up or wanting to join a frequent flyer program, they are using the airplanes to get to their holiday or work destination, and while doing that may benefit from signing up to save their tickets online for later modifications or getting additional perks offered by the airline's frequent flyer program. Just by reducing friction from a step to sign up may not lead to the desired outcome, if the sign up action in itself does not provide any value to the customer.

In the case of a brick-and-mortar fashion stores, while from your product's perspective it may be obvious how the online orders are processed, the store personnel are managing multiple tools and processes, carrying physical devices and fashion items. Our solution and process was just one of many, often deprioritised because of the service provided for their primary customer segment, the in-store customers.

Eventually the mobile application for the fashion stores needed to be as much out of the sight when not needed, and just provide the nudge to pick up the items as new orders came in. This lead to high product adoption as it didn't add to the burden of things to remember, and thus lead to shorter fulfilment times and fewer order cancellations. In the case of the airline's new frequent flyer program, the program was designed to be useful from day one and first flight forwards, still providing those extra benefits for those who flew frequently. After the new program was launched, the number of users who signed up and joined the frequent flyer program during the purchase of their flights multiplied.

Talk to the customers and build something that the customers need and value and lead to your businesses desired outcomes.

Key Takeaways

Observe what users do and ask what they aspire to achieve. Build for what they need, not what they want. Use quantitative data to understand the general behaviors of what users do. Use qualitative feedback from users to understand why they do what they do and don't do. Address the user's need with a solution that is focused on achieving the desired business outcome. Measure how your solution leads to those desired outcomes.

Inspiration and Further Reading:

- Shape Up: Stop Running in Circles and Ship Work that Matters by Ryan Singer
- Continuous Discovery Habits by Teresea Torres
- Design for How People Think: Using Brain Science to Build Better Products by John Whalen
- Competing Against Luck: The Story of Innovation and Customer Choice by Clayton M. Christensen
- Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation by Tim Brown
- Hooked: How to Build Habit-Forming Products by Nir Eyal
- Inspired: How to Create Tech Products Customers Love by Marty Cagan

Summary
Rinse and Repeat

Embrace the routine

Set up clear frameworks and processes so you don't need to re-invent the wheel whenever you need to evaluate your product's purpose, assess your strategic focus areas or think what to build next. Do all of these activities on a regular basis, build a routine and a habit out of them. Here's one of my favorite quotes on the importance of routines, which I heard during a discussion with a customer at their site while building a product to help operate and manage mid-sized container ship terminals:

"Because of the economic downturn we now only get 2-3 ships to unload and load per week. The amount of work has reduced, but we are actually slower in our processes now, than what we were when we got a ship in the port every day. Now every time a ship arrives we have to remind ourselves on what needs to be done and how, because we lack the discipline of the routine."

- Operating Manager for a Manually Operated Container Ship Terminal

In everything you do, you get better by doing and iterating as you go. Focus as much of your thinking and brain power into your product building efforts and learning how your product performs and succeeds with routines and processes that can be honed and improved.
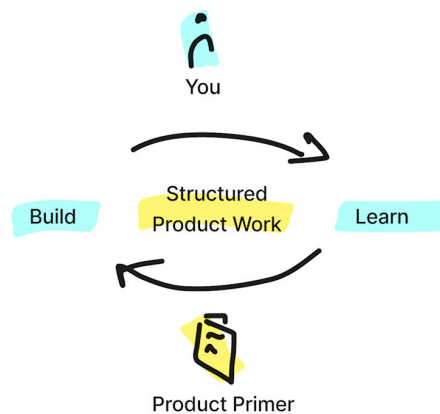
Now, go and build a great product. Wishing it a great success!

- Why - Find your product's purpose. As the market and your customers' behaviors evolve, re-evaluate the relevance of your product.

- How - Define a strategy on how to deliver a meaningful product. Keep your focus in constantly creating value other products don't, with a team equipped to deliver that value as fast as possible.

- What - Understand your users needs and focus your solutions on outcomes. Keep on a constant dialogue with your users.