Should I build a Proof of Concept or a Minimum Viable Product?

You have a vision, now you need a roadmap.

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I am not afraid of storms for I am learning how to sail my ship.

— Louisa May Alcott

You have a product in mind which you want to build for your customers. But you have no experience building the product, and development will cost you a million dollars. How are you going to get the money? Will your customers love it? Will they buy it? You, of course, have no idea.

So, what will you do?

Like other established startups of the past (Dropbox, Uber, Slack), or [like some of the people I've worked with,](#) you should start by creating one or two proof of concepts (PoCs) — and after that, a minimum viable product (MVP).

What is A Proof of Concept (PoC)

A PoC is an early model of the final product/service which will eventually be developed.

The main characteristic of a PoC product/service is that it looks and acts like a real product, but actually isn't because it doesn't have all of the core functionality, and because of that, is not something a user will pay for.

Let's say you are an entrepreneur in an alternative universe where the only means of transportation is the local subway system. You want to disrupt the mobility industry by building a car. You bet that people will find a compact vehicle which they can own — and use at any time to go anywhere — attractive.

You know it is a winning idea, but there are two problems:

1. You are not 100% sure if there is a market for it. For example, maybe people will find the initial cost to be unreasonable. Or maybe they will find that operating and maintaining a vehicle too much of a hassle.

2. You estimate the cost of building this car

to be one million dollars, but you have only a tenth of that. As such, you'll need to convince someone to invest in your idea, in exchange for a share in future profits. But the problem is that convincing someone to invest in an idea that's only in your 'head' is not easy.

In this hypothetical scenario, you don't have the knowledge and resources to develop anything close to a working car

. Although you know that internal combustion engines are a thing, you can't make one yourself. Manufacturing suspension and steering are out of your budget.

So, to overcome these two limitations, you will build a proof-of-concept which will show that your concept is sound

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A PoC looks and acts like a real product, but is not something that can be sold to a customer.

In this case, your PoC might be a vehicle which can house one person, powered by an oversized wind-up engine that can run for only one hundred meters in your private circuit. This is something you can build with the money, skills and human resources you possess.

Most likely you are not Elon Musk and you are not trying to build a car. If you are reading this you probably have an idea of a software solution. How would a PoC for your idea look like? A software PoC might only work with fake money. Or while the features appear on the screen, the buttons aren't clickable. Maybe it can't support more than 5 users at a time. Or it can't run 24/7.

With so many flaws, you might wonder what a Proof of Concept good for?

A PoC for Storytelling

Well, it's good for telling a story.

We humans like stories. When you go to pitch your product to investors, you will basically them a story — YOUR story. About yourself as a successful leader and entrepreneur; about your team as a crack team of ninja hackers and business wizards; and about your product.

To tell this story successfully, you want it to sound real, to be immersive, to be attention-grabbing. Investors don't like to spend money on things which don't exist. A PoC is what will give investors an actual feeling, a taste, an immersive experience of what your product is like.

With your PoC you can invite investors to sit in the car

, to play with the switches that turn on the lights and the radio, and to activate the features that make the car go in a straight line the other end of your road.

This prop

will help your investors understand the story of your product. It is an order of magnitude more convincing that if you dive into the shark tank with a pack of slides.

A PoC is what will give investors an actual feeling, a taste, an immersive experience of what your product is like.

Of course, showing them a fully working product is more effective, but developing one costs several times more money (which is what you're after in the first place!).

Think of a PoC as a step in the ladder to money. You've got a slide deck, then you upgrade that to a proof of concept.

A PoC for product-market fit testing

By testing different versions of a PoC, you can figure out design flaws and gradually understand the best way to develop the final product.

If experts and investors reject your product, you will get feedback, which will allow you to pivot cheaply and develop a better PoC. Maybe the market for a car

doesn't exist, but that for a truck

does?.

Proof of Concepts are crucial in the development of a product. Without building and testing proofs of concept, you might end up building the wrong product.

But with a proof of concept, you can quickly weed out inconsistencies in your product's concept, design and construction — and make improvements much faster and at a cheaper cost.

What is an MVP

A minimum viable product is a very limited but workable product your customers can interact with. It only comes with the necessary features required to make it functional and usable. While it doesn't have the full set of features in your vision, it is something that you could charge money for.

Let's take the previous example again. You ran your car

concept with experts and investors, and got very positive feedback. You even secured extra money from an angel investor. You popped open some champagne and then got back to work the next morning. Ouch.

Building a fully featured car is still out of your reach. You have money to build some features but lack the experience or the budget for a full product.

An MVP is something that you could charge money for.

Now, your next focus will be to figure out the Unique Selling Proposition (USP) behind your concept and build the minimal thing that will deliver showcase your final product's USP in action.

Keeping this in mind, you build a skateboard.

Yes, I know. It is not comfortable. You get wet in the rain. You have to push it yourself. And it doesn't even have cup holders!

But you can own it, and you can ride it when and where you fancy. It is simple enough that you can build it right, and charge money for it. It is an MVP.

The MVP should solve the core problem or fulfill the core desire/need

which the final product will

. This is essential to the MVP's success.

What is an MVP good for

You build an MVP for the same reasons that you build a PoC, just in different stages of your product's development. To get more funding, and to steer towards a product that the market will love.

An MVP lets you test out the 'risks' associated with your product. In our car example from above, the risk associated with it can be:

1. Demand:

Are real people interested in buying the product i.e. a personal mobility solution?

1. Reception:

Does the product fulfill the standards people expect i.e. Do you really need a seat? Is pushing it an issue? Should we think of something for when it rains?

1. Feasibility:

Is it actually possible to create and ship the product i.e. Can we at least make boards and wheels right? How hard would it be to add a seat? What about an engine?

If the MVP fails in any of the above categories, you can pivot again. It is more expensive to pivot with an MVP than with a proof-of-concept, but it is also cheaper than pivoting with a fully featured product.

The point is, with an MVP, you can get real feedback on your product while getting actual revenue. And using the feedback and the revenue, you can improve the MVP, gradually building the final version of your envisioned product.

Summary

When you have an idea to build into a software product, but limited resources, you should start by building one or two proofs of concept, and then progress to an MVP.

Each one of these is a step in the product development ladder, allowing you to obtain money and feedback to climb on another step.

Taking this iterative approach you limit your risk of building the wrong product. You fail early, gather feedback, and build better.

A proof of concept is

an early model of a product which is still in development. It supports the storytelling

around a product, turning an abstract idea or concept into something visual and understandable. Great for convincing stakeholders and potential teammates to invest time and resources into building a fully-realized product. Great for quickly iterating your product concept towards something your customers will love.

A minimum viable product

is a working but barebones version of the final product that is sold to the final users. It allows you to ship a working version of a product at a much lower cost to a small set of users to validate its use and obtain valuable real feedback

. An MVP will also bring real revenue

, which will condition all future investment conversations in your favour. You might not even need any more investors after the MVP.

I love helping people with ideas to turn them into reality. If you are not sure whether you should build a proof of concept or a minimum viable product for your idea, please [drop me a line](#)!