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LEAN STARTUP –

BECAUSE USERS DO NOT WANT FLAWLESS CODE



1. THE OLD WAY IS NOT WORKING

Traditional innovation methods have a 17 percent success rate,¹ and new products have a failure rate of up to 95 percent.² While these numbers are interesting statistics, they do not give leaders or those developing new product offerings the insight and guidance needed to launch new products, be they internal or external, in a manner that mitigates the risk of failure. It is clear from the numbers above that the traditional methods of planning, developing, and executing new products are sub-optimal and do not prioritize the right outcomes that can help mitigate the risk of failure.

Organizations are increasingly adopting new ways of working, often inspired by startups, to address these concerns and to use hyper agility and velocity to accelerate launching new products and services. The question is no longer “should we launch a new product?” but “how do we know what the best product to launch is?”

One of the frameworks that offer some guidance on developing the best products is ‘Lean Startup,’ a method that encourages experimentation and learning over multi-year planning, speed over perfection, and “getting out of the building” over groupthink. Although the name suggests they are for startups, the principles and approach are just as sound for large organizations as founder-owned entities. Lockheed Martin’s skunk works illustrate that similar approaches can be successful in large organizations and have been since the 1950s.³

The Lean Startup method was pioneered by Eric Reis,⁴ a serial entrepreneur, who developed the methodology based on his experiences building the social networking site IMVU.⁵

2. HOW THE LEAN STARTUP APPROACH WORKS – A SCIENTIFIC METHOD

Although there are many reasons for an organization to launch a new product or service, there is usually one overarching aim: to improve the organization's commercial performance. As mentioned above, the traditional way this is done involves meticulous planning, complex financial models, and market entry strategies. Yet, most fail. Given that there are plenty of smart people behind these processes, one has to assume that it is the process itself that is causing these failures.

Lean Startup promotes de-risking the assumptions and the proposition as that proposition itself is being built. It encourages us to dream big but think small, via a process of **validated learning**, recognizing that every step we take to de-risk is a step to a product that consumers want, is profitable, and technically viable.

Regardless of the industry, division, or problem, the new proposition is aimed at, a series of hypotheses underpin that proposition. Those assumptions are crucial to producing something that users want and that you are producing or surfacing it so that they are willing to use it. However, not all of these assumptions are created equally. Some are inherently riskier than others, either because they have not been market-

tested or the organization has no data, or basis of fact to affirm or deny these assumptions.

At the outset of product development, it is key to understand the assumptions that will either make or break the product and which have the highest level of uncertainty. Which assumptions do you need to prove or disprove most urgently before you spend added time and effort? It is testing these hypotheses that drive the validated learning for the team and the organization and ultimately allow for course corrections from the onset of product development.

When we look at business models or new venture propositions, we often find that validations already exist in the market. Take the Apple iPod/iTunes as an example.⁶ The market had already validated that downloading music was desirable, as was listening on the go. What was not present, and, therefore, the assumption that most urgently needed to be tested was are people willing to pay?. How did Apple test this assumption in a risk-free way? **Licenses** with the record labels that meant that they take a cut of the sales, rather than high up-front costs. They changed the model to suit the situation, and as some see it, saved music.⁷

IPOD/ITUNES VALUE PROPOSITION

People will pay to download music to listen to in public

Risky assumption –
needs validating

Validated by
Napster

Validated by
the Walkman

Building the Minimum Viable Product (MVP) – focus on learning

Multiple definitions are used when describing a Minimum Viable Product, often within the same organization. The key thing to remember is that to the user, even if they are aware that it is an MVP, alpha or beta, that the only thing that they care about is, “Is this solution better than the other way(s) I have been solving this problem previously?” That is what you need to show to the user.

However, do not lose sight of why you are launching the MVP. The MVP is to test and learn as you iterate to a successful business model. It is to continue your validated learning.

In other words, the product/service only needs to be as good as it needs to be to learn.

This poses a juxtaposition, one that businesses need to balance, and this is inherent in the wording. The minimum is what the business wants to achieve to validate its learning; viable is what the user needs for the product to be attractive.

Minimum in this context is often confused with the smallest number of features needed for the business to release the product comfortably. This is a misconception. The minimum

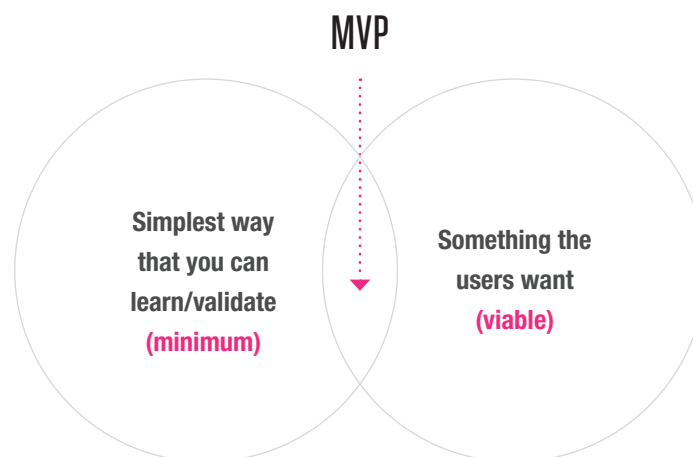
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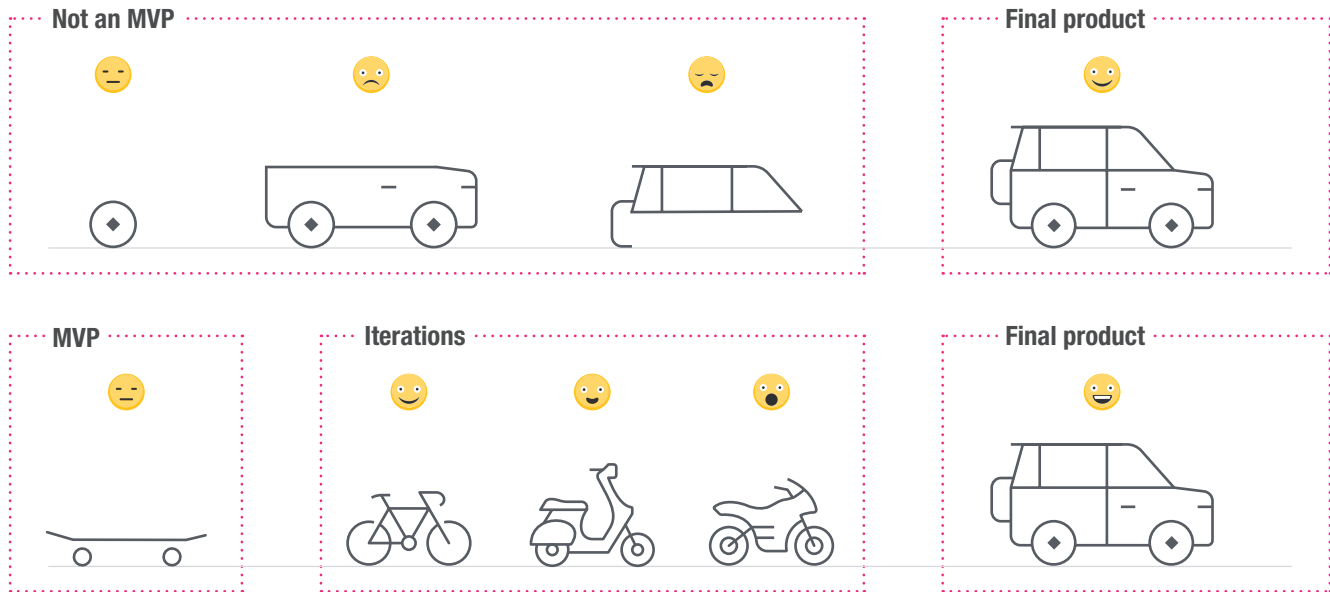
A Minimum Viable Product is the smallest thing you can build that delivers customer value (and as a bonus, captures some of that value back).

”

– Ash Maurya⁸

is the simplest way we can surface value to the user, which means we can learn and test that it is valuable. As Paul Graham of Y Combinator says, “do things that don’t scale,”⁹ because things that do not scale are often the fastest way to get to your customers. You will get some things wrong, undoubtedly, sometimes embarrassingly wrong. But it is key in the MVP phase to get it wrong. Examining the data and users allows you to know where you were wrong and put it right. You do not get any medals for shipping a product to the masses that no one wants to use or in a way that is not useful.





Examples of successful MVPs (Minimum Viable Product)

Zappos might have built the ultimate MVP; they were acutely aware of the assumption that they needed to test and learn from: would people buy shoes online? While it might be commonplace now, when Zappos launched in 1999, the world of e-commerce was vastly different, especially for clothing and apparel. Nick Swinmurn, the founder, needed to test his hunch that people would buy shoes online. Nick launched a shoe shop with no shoes. Zappos' first launch was a simple online store with pictures of the shoes available at his local shopping center. Should a user wish to purchase, Nick bought the shoes and shipped them. Obviously, this is not a scalable business model, but that was not the point. Zappos' business model hinged on one large and fundamental assumption. Nick needed to prove, or disprove, that assumption as quickly, easily, and cheaply as possible, which is what he did. Zappos was sold to Amazon for \$1.2 billion in 2009.

Uber (then known as UberCabs) started with three cabs in San Francisco that people would order a car from their phone (iPhone and SMS only at the time)¹⁰. Cabs already had market validation. Uber needed to test the value proposition's riskiest part(s) –

namely, whether people would use their phone to 'hail' a cab and use a private car instead of a taxi to travel. Uber recognized that the biggest risk to their business was not technology or scale. Those things would come in time, but whether people would be incentivized enough by the product to switch. Starting small had added benefits as well. Early adopters would be used to focus the firm's efforts to improve the platform and future development. Uber, explicitly, did things that did not scale. You had to email one of the founders to get access to the platform. Each user was given the CEO's email address. It was clunky, limited in features and experience, but it proved the model and supplied data and feedback that allowed Uber to become a worldwide brand.

Types of MVP

Landing page MVP

The landing page MVP is one of the simplest and easiest MVP types, one where you can start to test your assumptions and to understand if the idea you have is likely to resonate with your target market. Using targeted Facebook or Google AdWords to drive traffic to a mocked-up landing page, you can test if users are interested in your product. If it does resonate, then your idea has a starting list of potential adopters that can be used for further build-measure-learn loops.

Concierge MVP

The concierge MVP is centered around manually carrying out the service that you are developing to a small group of users, supplying the level of service that the final product will offer as much as possible. The key is that you keep your user base exceptionally close, minimizing the time and effort spent on iterations and getting the maximum level of feedback and learning from your user group. It is not scalable, but in the pursuit of perfecting the product before scaling the business, it is one of the best ways of getting that right quickly.

'Wizard of Oz' MVP

So-called as the inner workings of the product are 'behind the curtain.' The user gains the benefits and value in what appears to be a fully functional and fully automated system, but it is not. Behind the scenes, some or all of this is handled manually. It obviously has the same scalability issues as the concierge MVP. Still, you can see firsthand how users are interacting with the product, and it does away with the risk that users are modifying their feedback as they are dealing with a person, not a computer.

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If you're not embarrassed by the first version of your product, you've launched too late.”

”

– Reid Hoffman Co-founder of LinkedIn¹¹

Single Feature Product MVP

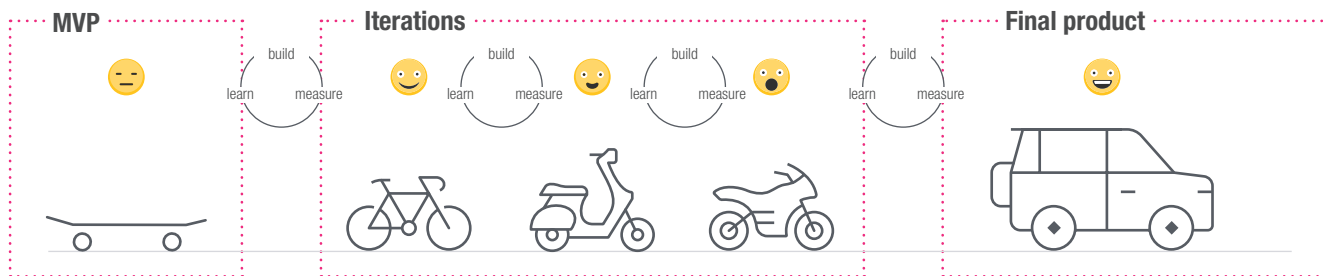
Focus on one feature or minimal feature set of your product. It is easier to explain, reduces complexity and usually faster to build. This allows you to test the service design around the product as well as the product itself. It supplies data on how users are using the service and gives you intelligence into what areas need to be strengthened because of those interactions.

Lean Startup in Financial Service

Mettle, launched and owned by RBS, is an example of how large incumbent banks can and have launched offerings using a nimble, Lean Startup approach while still adhering to necessary risk, compliance, and regulatory conditions. Mettle's 'minimum viable' approach balanced the cost versus quality, recognizing that the highest quality solutions we are only as good as the problems they were solving and that finding and validating the problem was the biggest risk.¹²

Viable – focus on the 50, not the 50,000

Viability is again a misunderstood area. Viability is the value provided to the user; it does not mean that that value is actually provided. In this instance, viability and desirability are closely aligned. You are not trying to be all things to all people. Focus small on a particular problem or sub-area that offers real value to some users. Remember, the aim is to learn and get feedback and test your assumptions; focusing on the 50 over the 50,000 means that you are attacking a real problem with real users and that the feedback loop is as short as possible. MVPs can take many forms, from videos, prototypes, single-feature working code



to fully working products. Putting something tangible in front of real users and getting them to respond to it is far more valuable at this stage than an all-singing, all-dancing fully-featured product that has taken years to develop.

However, this is not permission to cut corners; launching products that alienate users or break laws or compliance safeguards is clearly not workable. Balance the risk with the MVP type and the fidelity of the MVP. A video is not going to put the business at risk of breaking AML laws. A single-feature money transfer app might. Viability needs to be a holistic view. It is worth remembering that your aim is to learn, not just from the customer, but also other areas of the product of which you need to be aware and cognizant. That includes the operational, risk, compliance, and legal side of the venture. Measure twice, cut once, is a good paradigm to guide you at this point.

Build measure learn loops – iteration-based learning

As previously mentioned, you will not get your MVP exactly right, and that will not be the end of the product journey. Returning to the skateboard to car example: between each 'release' are build-measure-learn loops. The goal is to get ongoing validated learning in as short a feedback loop period as possible, perfecting the product at every later step.

Build does not necessarily mean code. Further enhancements of the MVP based on continuous learning might be the best and quickest way to progress towards the right model. You can see from <list 2> that there are many ways to test the market, and iteration on the MVP prior to breaking ground on an actual coded solution allows you to continue to assumption-bust and test your hypothesis in a controlled and measurable way.

It is often said that you can only improve that which you can measure¹³; Lean Startup embraces this principle. Measurement is key to understanding the improvements (or indeed, where you have made the product inferior!) that you are making. Again,

remember that your aim is to continue your learning, to iterate to your final product. It is vital to develop metrics that are relevant and meaningful. It is natural to gravitate to 'success' metrics that are not the right measures. Having 50,000 downloads from the app store is meaningless if no one is using your app. In Lean Startup parlance, these are vanity metrics, metrics that look good on paper but actually aren't impactful or meaningful. Vanity metrics are not just the wrong metrics. They can be actively dangerous, allowing the organization to think that they are making positive progress, masking that there could be fatal flaws in the product that would hinder adoption and product-market fit.

A/B testing¹⁴ is a fantastic way of testing a new or altered experience against your current experience baseline. A cohort of users can be served the new experience while a baseline group remains on the current experience. If your metrics improve on the new experience, it is rolled out universally; if not, then you revert to the current experience. Amazon was doing 7,000 tests annually back in 2011; that number can only have risen.¹⁵ It is estimated that 25 percent of those are winners, and 75 percent are not. That is still 1,750 improvements per year using this approach.

Having planned your experiment, built it, and gathered the required data, we restart the loop and return to learning. Based on this new insight and intelligence, how do you further refine your MVP, what new assumptions are you making, and how can you quickly and easily test those assumptions? The process has come full circle. The MVP has been improved, better aligned with user needs and wants, driving further adoption and success.

Pivot or persevere....or stop

There may come a time when the data and information you are collecting goes against the first hypothesis and assumptions you started out with. This is a good thing. Blindly continuing along a path against the flow of user desires is not going to end well. The question is what to do with this information that is contrary to your original hypothesis. At these points, you are either discovering

an emerging new use case or opportunity that is more attractive than your old use case. In this case, pivoting to the new use case might be the answer and exploring the attractiveness, both from a user standpoint and from a business standpoint, of that new opportunity. There are also cases when that simply is not possible or available, in which case the answer is to stop. Hopefully, you have spent the least possible amount of resources to know that the idea will not create a sustainable business model. It is far better to understand that truth, having experimented in a cost-efficient manner than to have spent significant resources on a product launch that ultimately falls flat.

Conclusion

A Lean Startup approach de-risks the approach to new products and ventures, one that is fraught with difficulty and 'false starts.' It does so by taking a much more scientific method to innovation and the development of new ideas. There is recognition that the biggest risks aren't necessarily that the code may not be perfect, or that the processes aren't frictionless. It is that perfect code and frictionless processes do not mean that users want your product or that your product has a robust monetization model that means it is worth doing. To test small and often in ways that do not scale is the risk mitigation method, not the cause of inflated risk because everything is not buttoned-down as tightly as possible. Intrinsically you are more likely to be able to spot say money laundering if your user base is fifty and you are manually reviewing suspicious transactions than you are with a user base

of millions. The risk level is not the same so the approach to it doesn't need to be either.

Startups do not have the luxury of multi-million-dollar budgets or staff ensconced in one functional area; they must find the kernel of value before their runway of funding runs out, preferably as quickly and accurately as possible. The risk to them is much clearer and much more prevalent. The more enlightened financial services organizations are starting to realize that this approach can work for them as well, taking a venture capital approach to funding and product selection, a trend that is likely to increase in an ever more uncertain world.

Example MVPs

MVPs can take many forms and function. As we have seen, they aim to maximize learning while minimizing cost and resource use. Some of the biggest names in business, and not just technology companies, started with relatively basic MVPs. Below are some examples, none of which involved code:

Dropbox

Dropbox's MVP was a three-minute video aimed at early technology adopters. The assumption that the product would be useful was clearly being tested, but there were a couple more implicit assumptions in the MVP. Dropbox relies on a network effect, i.e., the product becomes more valuable, the greater the number of people that use it. Dropbox tested the assumption that

WHAT WE LEARNED

- Biggest risk: making something no one wants
- Not Launching » Painful, but not learning » fatal
- Put something in the users hands (doesn't have to be code) and get feedback ASAP
- Know where your target audience hangs out and speak to them in an authentic way

that network effect was available using Digg, a social networking site where users can share content. And they did. Within 24 hours, Dropbox's video had over 10,000 'Diggs,' resulting in 70,000 people signing up to their beta list. The validation was not a focus group or friends and family, but because users signed up on the promise of value. Drew Houston, Dropbox's founder, summed it up in 2010 with a single slide¹⁶:

Dropbox's current market capitalization is over \$8 billion.

You can find the original video here: https://www.youtube.com/watch?v=iAnJjXrilcw&feature=emb_logo

Virgin Airways

Virgin airways MVP was conceived, launched, and validated in a matter of hours, with no plane. Richard Branson of Virgin fame was in Puerto Rico when his flight to the British Virgin Islands was canceled. Rather than wait for a later flight, he chartered a plane, borrowed a blackboard, wrote Virgin Airlines on the top, and "\$39 one way to BVI."¹⁷

Pebble

Kickstarter and IndieGoGo allow you to truly test the market and business model without having to put anything into production, neither code nor hardware. Pebble is a shining example of how they could validate the assumptions surrounding their e-ink-based smartwatch: most significantly that people would pay for their product, by getting people to pay for their product, a product that did not exist, to the tune of over \$10m.¹⁸



REFERENCES

1. <https://strategyn.com/wp-content/uploads/2019/10/Innovation-Track-Record-Study-Strategyn-1.pdf>
2. <https://www.inc.com/marc-emmer/95-percent-of-new-products-fail-here-are-6-steps-to-make-sure-yours-dont.html>
3. <https://lockheedmartin.com/en-us/who-we-are/business-areas/aeronautics/skunkworks.html>
4. <https://bit.ly/3dbzBKl>
5. <https://secure.imvu.com/welcome/login/>
6. <https://www.bullethq.com/lean-startup-zappos-how-zappos-validated-their-business-model-with-lean/>
7. <https://www.theverge.com/2013/4/26/4265172/itunes-store-at-10-how-apple-built-a-digital-media-juggernaut>
8. <https://blog.leanstack.com/minimum-viable-product-mvp-7e280b0b9418>
9. <http://paulgraham.com/ds.html>
10. https://www.scribd.com/document/357024585/UberCab-Dec2008#from_embed?campaign=SkimbitLtd&ad_group=66960X1516588Xd039fc8a6d716bc72036bee9cd5df7d1&keyword=660149026&source=hp_affiliate&medium=affiliate
11. <https://www.linkedin.com/pulse/arent-any-typo-essay-we-launched-too-late-reid-hoffman/>
12. <https://www.capco.com/Intelligence/Events/Neobanks-Fintechs-and-Banks-the-Changing-Landscape>
13. If you cannot measure it, you cannot improve it. – Lord Kelvin
14. <https://hbr.org/2017/06/a-refresher-on-ab-testing>
15. <https://teamcroco.com/how-to-grow-your-company-ab-testing/>
16. <https://www.slideshare.net/gueste94e4c/dropbox-startup-lessons-learned-3836587/14-What-we-learned-ulliBiggest-risk>
17. <https://www.cnn.com/2017/08/03/richard-bransons-airline-won-945000-and-it-all-went-to-employees.html>
18. <https://www.kickstarter.com/projects/getpebble/pebble-time-awesome-smartwatch-no-compromises>

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