BEYOND LEAN STARTUP TOWARDS INTEGRATED LEAN STARTUP

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ABSTRACT: *IN THIS ARTICLE WE STARTED ADDRESSING THE FUNDAMENTAL QUESTION: WHAT PRACTICAL METHODOLOGY & APPROACH TO USE IN IMPLEMENTING AN INNOVATIVE SME PROJECT PROPOSAL IN SITUATION OF HIGH UNCERTAINTY AND AMBIGUITY, WITH TURBULENT EVOLUTIONS AND DYNAMIC CHANGES, WITHIN THE CONTEXT OF PHASE 1 OF SME INSTRUMENT IN HORIZON 2020? WE CHOSE A "LEAN STARTUP" TYPE METHODOLOGY, THE "INTEGRATED LEAN STARTUP" WHICH INTEGRATES THE "NORMAL LEAN STARTUP METHODOLOGY" WITH AN "ACTION RESEARCH" APPROACH. AND SO WE WILL FOCUS ONEXPERIMENTING, TESTING AND LEARNING (ADAPTIVE LEARNING AND QUICKLY DEVELOPING PROTOTYPES TO TESTMARKET VIABILITY) INSTEAD OF BUSINESS PLANNING. SO, THIS ARTICLE OFFER A BRIEF OVERWIEW OF LEAN STARTUP. IT'S A METHODOLOGY CALLED THE "LEAN START-UP," AND IT FAVORS EXPERIMENTATION OVER ELABORATE PLANNING, CUSTOMER FEEDBACK OVER INTUITION, AND ITERATIVE DESIGN OVER TRADITIONAL "BIG DESIGN UP FRONT" DEVELOPMENT. ALTHOUGH THE METHODOLOGY IS JUST A FEW YEARS OLD, ITS CONCEPTS - SUCH AS "MINIMUM VIABLE PRODUCT" AND "PIVOTING" - HAVE QUICKLY TAKEN ROOT IN THE START-UP WORLD, AND BUSINESS SCHOOLS HAVE ALREADY BEGUN ADAPTING THEIR CURRICULA TO TEACH THEM. THE LEAN STARTUP IS A NEW WAY OF LOOKING AT THE DEVELOPMENT OF INNOVATIVE NEW PRODUCTS THAT EMPHASIZES FAST ITERATION AND CUSTOMER INSIGHT, A HUGE VISION, AND GREAT AMBITION, ALL AT THE SAME TIME. THE LEAN STARTUP METHOD IS DESIGNED TO TEACH HOW TO DRIVE A STARTUP. INSTEAD OF MAKING COMPLEX PLANS THAT ARE BASED ON A LOT OF ASSUMPTIONS, YOU CAN MAKE CONSTANT ADJUSTMENTS WITH A TOOL CALLED THE BUILD-MEASURE-LEARN FEEDBACK LOOP. THROUGH THIS PROCESS IT CAN LEARN WHEN AND IF IT'S TIME TO MAKE A CHANGE OR WHETHER WE SHOULD PERSEVERE ALONG OUR CURRENT PATH. THE LEAN STARTUP OFFERS METHODS TO SCALE AND GROW THE BUSINESS WITH MAXIMUM ACCELERATION. THE LEAN STARTUP IS THE FOUNDATION FOR REIMAGINING ALMOST EVERYTHING ABOUT HOW WORK WORKS. IT PROVIDES ACTIONABLE WAYS TO AVOID PRODUCT-LEARNING MISTAKES, RIGOROUSLY EVALUATE EARLY SIGNALS FROM THE MARKET THROUGH VALIDATED LEARNING, AND DECIDE WHETHER TO PERSEVERE OR TO PIVOT, ALL CHALLENGES THAT HEIGHTEN THE CHANCE OF ENTREPRENEURIAL FAILURE. THIS ARTICLE IS*

BASED ON THE BOOK BY ERIC RIES "THE LEAN STARTUP" AND SOME IDEAS IMOPRTANTE OF STEVE BLANK.

KEY WORDS: LEAN STARTUP, COSTOMER, ENTREPRENEURSHIP, SUSTAINABLE BUSINESS.

INTRODUCTION

The Lean Startup movement[1] is making entrepreneurship accessible to a new generation of founders who want new ideas about how to build successful companies. The Lean Startup movement is dedicated to preventing the failures. The Lean Startup movement seeks to ensure that those who long to build the next big thing will have the tools we need to change the world.

The Lean Startup movement stands for the principle that the scientific method can be brought to bear to answer the most pressing innovation question: How can we build a sustainable organization around a new set of products or services?

The Lean Startup approach can work in any size company, even a very large enterprise, in any sector.

It's important to define what a startup is: a startup is a human institution designed to create a new product or service under conditions of extreme uncertainty.

A startup is not just about a product, a technological breakthrough, or even a brilliant idea. A startup is greater than the sum of its parts; it is an acutely human enterprise.

The fact that a startup's product or service is a new innovation is also an essential part of the definition and a tricky part too.

Startups exist to learn how to build a sustainable business and can be validated scientifically by running frequent experiments that allow entrepreneurs to test each element of their vision. The Lean Startup adapts the ideas to the context of entrepreneurship, proposing that entrepreneurs judge their progress differently from the way other kinds of ventures do.

The principal activity of a startup is to turn ideas into products and services, measure how customers respond, and then learn whether to chamge or persevere. All successful startup processes should be geared to accelerate that feedback loop.

In real life, a startup is a portfolio of activities. The challenge of entrepreneurship is to balance all the activities. Even the smallest startup faces the challenge of supporting existing customers while trying to innovate. Even the most established company faces the imperative to invest in innovation lest it become obsolete. As companies grow, what changes is the mix of these activities in the company's portfolio of work.

Politics means that they sometimes win and sometimes lose: if a crisis emerges elsewhere in the organization, their budget might suddenly be reduced. This is not a catastrhe; teams will have to work harder and do more with less. Startups are different: too much budget is as harmful as too little. Startups are extremely sensitive to midcourse budgetary changes. It is extremely rare for a stand - alone startup company to lose x

percent of its cash on hand suddenly. In a large number of cases, this would be a fatal blow, as independent startups are run with little margin for error.

Startup teams need complete autonomy to develop and market new products within their limited mandate. They have to be able to conceive and execute experiments without having to gain an excessive number of approvals.

I strongly recommend that startup teams be completely crossfunctional, that is, have full-time representation from every functional department in the company that will be involved in the creation or launch of their early products. They have to be able to build and ship actual functioning products and services, not just prototypes.

Startups require that they be kept to an absolute minimum.

This level of development autonomy is liable to raise fears in a parent organization.

Alleviating those fears is a major goal of the method recommended below.

Thus, startups are both easier and more demanding to run than traditional divisions: they require much less capital overall, but that capital must be absolutely secure from tampering.

Startups use many kinds of innovation: novel scientific discoveries, restarting an existing technology for a new use, devising a new business model that unlocks value that was hidden, or simply bringing a product or service to a new location or a previously underserved set of customers. In all these cases, innovation is at the heart of the company's success.

To improve entrepreneurial outcomes we need to focus on the principal problems: how to measure progress, how to set up milestones, and how to prioritize work. This requires a new kind of accounting designed for startups - and the people who hold them accountable.

THE LEAN STARTUP METHOD[2]

In the modern economy, almost any product that can be imagined can be built. The question is not "Can this product be built?" The more pertinent questions are "Should this product be built?" and "Can we build a sustainable business around this set of products and services?" To answer those questions, we need a method for systematically breaking down a business plan into its component parts and testing each part empirically. In other words, we need the scientific method.The Lean Startup methodology considers a startup's efforts as experiments that test its strategy to see which parts are good and which are bad. A true experiment follows the scientific method. It begins with a clear hypothesis that makes predictions about what is supposed to happen. It then tests those predictions empirically. Just as scientific experimentation is informed by theory, startup experimentation is guided by the startup's vision. The goal of every experimentation is guided by the startup's vision. The goal of every startup experiment is to discover how to build a sustainable business around that vision.

The Lean Startup is not a collection of individual tactics. It is a principled approach to new product development. The only way to make sense of its recommendations is to understand the underlying principles that make them work.

To apply the scientific method to a startup, we need to identify which hypotheses to test. The two most important assumptions are the value hypothesis and the growth hypothesis. These give rise to tuning variables that control a startup's engine of growth. Once it is running, the process repeats, shifting into higher and higher gears.

Once clear on these leap-of-faith assumptions, the first step is to enter the Build phase as quickly as possible with a minimum viable product.

The Lean Startup method builds capital - effcient companies because it allows startups to recognize that it's time to pivot sooner, creating less waste of time and money. Although the feedback loop is Build-Measure-Learn because the activities happen in that order, the planning really works in the reverse order: we figure out what we need to learn, use innovation accounting to figure out what we need to measure to know if we are gaining validated learning, and then figure out what product we need to build to run that experiment and get that measurement.

The engine of growth is the mechanism that startups use to achieve sustainable growth. It uses the word sustainable to exclude all onetime activities that generate a surge of customers but have no longterm impact, such as a single advertisement or a publicity stunt that might be used to jump-start growth but could not sustain that growth for the long term.

Sustainable growth is characterized by one simple rule: new customers come from the actions of past customers.

The Lean Startup is a new way of looking at the development of innovative new products that emphasizes fast iteration and customer insight, a huge vision, and great ambition, all at the same time.

The Lean Startup is a set of practices for helping entrepreneurs increase their odds of building a successful startup.

The Lean Startup method is designed to teach how to drive a startup. Instead of making complex plans that are based on a lot of assumptions, you can make constant adjustments with a tool called the Build-Measure-Learn feedback loop. Through this process it can learn when and if it's time to make a change or whether we should persevere along our current path.

To accelerate, Lean Startups need a process that provides a natural feedback loop. When you're going too fast, you cause more problems. Adaptive processes force you to slow down and invest in preventing the kinds of problems that are currently wasting time.

As those preventive efforts pay off, you naturally speed up again.

A training program for new employees is very necessary. Without a program, new employees will make mistakes while in their learning curve that will require assistance and intervention from other team members, slowing everyone down.

How do it decide if the investment in training is worth the benefit of speed due to reduced interruptions? Figuring this out from a top-down perspective is challenging, because it requires estimating two completely unknown quantities: how much it will cost to build an unknown program against an unknown benefit you might reap. Even worse, the traditional way to make these kinds of decisions is decidedly large-batch thinking. A company either has an elaborate training program or it does not. Until they can justify the return on investment from building a full program, most companies generally do nothing.

The Lean startup method has three key principles[3]:

"First, rather than engaging in months of planning and research, entrepreneurs accept that all they have on day one is a series of untested hypotheses—basically, good guesses. So instead of writing an intricate business plan, founders summarize their hypotheses . in a framework called a business model canvas.

Essentially, this is a diagram of how a company creates value for itself and its customers.

Second, lean start-ups use a "get out of the building" approach called customer development to test their hypotheses. They go out and ask potential users, purchasers, and partners for feedback on all elements of the business model, including product features, pricing, distribution channels, and affordable customer acquisition strategies. The emphasis is on nimbleness and speed: New ventures rapidly assemble minimum viable products and immediately elicit customer feedback. Then, using customers' input to revise their assumptions, they start the cycle over again, testing redesigned offerings and making further small adjustments (iterations) or more substantive ones (pivots) to ideas that aren't working.

Third, lean start-ups practice something called agile development, which originated in the software industry. Agile development works hand-in-hand with customer development. Unlike typical year long product development cycles that presuppose knowledge of customers' problems and product needs, agile development eliminates wasted time and resources by developing the product iteratively and incrementally. It's the process by which start ups create the minimum viable products they test.

THE VIRAL ENGINE OF GROWTH[4]

Awareness of the product spreads rapidly from person to person similarly to the way a virus becomes an epidemic.

The products that exhibit viral growth depend on person-to-person transmission as a necessary consequence of normal product use. Customers are not intentionally acting; they are not necessarily trying to spread the word about the product. Growth happens automatically as a side effect of customers using the product.

Viruses are not optional.

Like the other engines of growth, the viral engine is powered by a feedback loop that can be quantified.

The higher viral coeficient is the faster the product will spread. The viral coeficient measures how many new customers will use a product as a consequence of each new customer who signs up. Put another way, how many friends will each customer bring with him or her? Since each friend is also a new customer, he or she has an opportunity to recruit yet more friends.

For a product with a viral coeficient of 0.1, one in every ten customers will recruit one of his or her friends. This is not a sustainable loop. Imagine that one hundred customers sign up. They will cause ten friends to sign up. Those ten friends will cause one additional person to sign up, but there the loop will fizzle out.

By contrast, a viral loop with a coeficient that is greater than 1.0 will grow exponentially, because each person who signs up will bring, on average, more than one other person with him or her.

A consequence of this is that many viral products do not charge customers directly but rely on indirect sources of revenue such as advertising. This is the case because viral products cannot afford to have any friction impede the process of signing customers up and recruiting their friends. This can make testing the value hypothesis for viral products especially challenging.

The true test of the value hypothesis is always a voluntary exchange of value between customers and the startup that serves them.

Since each engine of growth can be defined quantitatively, each has a unique set of metrics that can be used to evaluate whether a startup is on the verge of achieving product/market fit. A startup with a viral coeficient of 0.9 or more is on the verge of success. Even better, the metrics for each engine of growth work in tandem with the innovation accounting model to give direction to a startup's product development efforts. For example, if a startup is attempting to use the viral engine of growth, it can focus its development efforts on things that might affect customer behavior - on the viral loop - and safely ignore those that do not.

Such a startup does not need to specialize in marketing, advertising, or sales functions. Conversely, a company using the paid engine needs to develop those marketing and sales functions urgently.

A startup can evaluate whether it is getting closer to product/market fit as it tunes its engine by evaluating each trip through the Build-Measure-Learn feedback loop using innovation accounting. What really matters is not the raw numbers or vanity metrics but the direction and degree of progress.

THE LEAN STARTUP MODEL[5]

The model is based on the assumption that the questions we ask will tend to focus our attention in a particular direction. Some other methods of assessing and evaluating a situation and then proposing solutions are based on a *deficiency* model. Some other methods ask questions such as "What are the problems?", "What's wrong?" or "What needs to be fixed?". Instead of asking "What's the problem?", some methods couch the question in terms of challenges, which still focuses on deficiency, on what needs to be fixed or solved.

In the Lean Startup model, it is rehabilitating learning with a concept validated learning. Validated learning is not after-the fact rationalization or a good story designed to hide failure. It is a rigorous method for demonstrating progress when one is embedded in the soil of extreme uncertainty in which startups grow. Validated learning is the process of demonstrating empirically that a team has discovered valuable truths about a startup's present and future business prospects. It is more concrete, more accurate, and faster than market forecasting or classical business planning. It is the principal antidote to the lethal problem of achieving failure: successfully executing a plan that leads nowhere. In the Lean Startup model, every product, every feature, every marketing campaign - everything a startup does - is understood to be an experiment designed to achieve validated learning. The Lean Startup model offers a way to test the hypotheses rigorously, immediately, and thoroughly. Strategic planning takes months to complete; these experiments could begin immediately.

In the Lean Startup model, an experiment is more than just a theoretical inquiry; it is also a first product. If this or any other experiment is successful, it allows the manager to get started with his or her campaign: enlisting early adopters, adding employees to each further experiment or iteration, and eventually starting to build a product. By the time that product is ready to be distributed widely, it will already have established customers. It will have solved real problems and offer detailed specifications for what needs to be built. Unlike a traditional strategic planning or market research process, this specification will be

rooted in feedback on what is working today rather than in anticipation of what might work tomorrow.

The Build-Measure-Learn feedback loop is at the core of the Lean Startup model.

The Build-Measure-Learn feedback loop is a continuous process.

CONCLUSION

The Lean Startup is a principled approach to new product development. It is a new way of looking at the development of innovative new products that emphasizes fast iteration and customer insight, a huge vision, and great ambition, all at the same time.

Applying the Lean Startup to entrepreneurship will unlock a vast storehouse of human potential. What would an organization look like if all of its employees were armed with Lean Startup organizational superpowers?

For one thing, everyone would insist that assumptions be stated explicitly and tested rigorously not as a stalling tactic or a form of make-work but out of a genuine desire to discover the truth that underlies every project's vision. The number of resources available for aspiring entrepreneurs is incredible. The most important resources are local.

The largest community of practice around the Lean Startup is happening online.

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The Lean Startup is a continuous process.

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