Acclaim for THE LEAN STARTUP

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“The Lean Startup isn’t just about how to create a more successful entrepreneurial business; it’s about what we can learn from those businesses to improve virtual y everything we do. I imagine Lean Startup principles applied to government programs, to health care, and to solving the world’s great problems. It’s ultimately an answer to the question How can we learn more quickly what works and discard what doesn’t?”

—Tim O’Reil y, CEO, O’Reil y Media

“Eric Ries unravels the mysteries of entrepreneurship and reveals that magic and genius are not the necessary ingredients for success but instead proposes a scienti c process that can be learned and replicated. Whether you are a startup entrepreneur or corporate entrepreneur, there are important lessons here for you on your quest toward the new and unknown.”

—Tim Brown, CEO, IDEO

“The road map for innovation for the twenty-first century. The ideas in The Lean Startup wil help create the next industrial revolution.”

—Steve Blank, lecturer, Stanford University,

UC Berkeley Hass Business School

“Every founding team should stop for forty-eight hours and read The Lean Startup. Seriously, stop and read this book now.”

—Scot Case, CEO, Startup America Partnership

“The key lesson of this book is that startups happen in the present —that messy place between the past and the future where nothing happens according to PowerPoint. Ries’s ‘read and react’ approach to this sport, his relentless focus on validated learning, the never-ending anxiety of hovering between ‘persevere’ and ‘pivot,’ al bear witness to his appreciation for the dynamics of entrepreneurship.”

witness to his appreciation for the dynamics of entrepreneurship.”

—Geof rey Moore, author, Crossing the Chasm

“If you are an entrepreneur, read this book. If you are thinking about becoming an entrepreneur, read this book. If you are just curious about entrepreneurship, read this book. Starting Lean is today’s best practice for innovators. Do yourself a favor and read this book.”

—Randy Komisar, founding director of TiVo and author of the bestsel ing The Monk and the Riddle

“How do you apply the fty-year-old ideas of Lean to the fast-paced, high-uncertainty world of startups? This book provides a

bril iant, wel -documented, and practical answer. It is sure to become a management classic."

—Don Reinertsen, author, The Principles of Product Development Flow

"What would happen if businesses were built from the ground up to learn what their customers real y wanted? The Lean Startup is the foundation for reimagining almost everything about how work works. Don't let the word startup in the title confuse you. This is a cookbook for entrepreneurs in organizations of al sizes."

—Roy Bahat, president, IGN Entertainment

"The Lean Startup is a foundational must-read for founders, enabling them to reduce product failures by bringing structure and science to what is usual y informal and an art. 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, al chal enges that heighten the chance of entrepreneurial failure."

—Noam Wasserman, professor, Harvard Business School

"One of the best and most insightful new books on entrepreneurship and management I've ever read. Should be

entrepreneurship and management I've ever read. Should be required reading not only for the entrepreneurs that I work with, but for my friends and col eagues in various industries who have inevitably grappled with many of the chal enges that The Lean Startup addresses."

—Eugene J. Huang, partner, True North Venture Partner

"In business, a 'lean' enterprise is sustainable e ciency in action. Eric Ries's revolutionary Lean Startup method wil help bring your new business idea to an end result that is successful and sustainable. You'l nd innovative steps and strategies for creating and managing your own startup while learning from the real-life successes and col apses of others. This book is a must-read for entrepreneurs who are truly ready to start something great!"

—Ken Blanchard, coauthor of The One Minute Manager®
and The One Minute Entrepreneur

The LEAN STARTUP

How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses

Eric Ries

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For Tara

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Disclosures

Introduction

Stop me if you've heard this one before. Bril iant col ege kids sit ing in a dorm are inventing the future. Heedless of boundaries, possessed of new technology and youthful enthusiasm, they build a new company from scratch. Their early success al ows them to raise money and bring an amazing new product to market. They hire their friends, assemble a superstar team, and dare the world to

stop them.

Ten years and several startups ago, that was me, building my rst company. I particularly remember a moment from back then: the moment I realized my company was going to fail. My cofounder and I were at our wits' end. The dot-com bubble had burst, and we had spent al our money. We tried desperately to raise more capital, and we could not. It was like a breakup scene from a Hol ywood movie: it was raining, and we were arguing in the street. We couldn't even agree on where to walk next, and so we parted in anger, heading in opposite directions. As a metaphor for our company's failure, this image of the two of us, lost in the rain and drifting apart, is perfect.

It remains a painful memory. The company limped along for months afterward, but our situation was hopeless. At the time, it had seemed we were doing everything right: we had a great product, a bril iant team, amazing technology, and the right idea at the right time. And we real y were on to something. We were building a way for col ege kids to create online pro les for the purpose of sharing … with employers. Oops. But despite a promising idea, we were nonetheless doomed from day one,

because we did not know the process we would need to use to turn

because we did not know the process we would need to use to turn

our product insights into a great company.

If you've never experienced a failure like this, it is hard to describe the feeling. It's as if the world were fal ing out from under you. You realize you've been duped. The stories in the magazines are lies: hard work and perseverance don't lead to success. Even worse, the many, many, many promises you've made to employees, friends, and family are not going to come true. Everyone who thought you were foolish for stepping out on your own wil be proven right.

It wasn't supposed to turn out that way. In magazines and newspapers, in blockbuster movies, and on countless blogs, we hear the mantra of the successful entrepreneurs: through determination, bril iance, great timing, and—above al —a great product, you too can achieve fame and fortune.

There is a mythmaking industry hard at work to sel us that story, but I have come to believe that the story is false, the product of selection bias and after-the-fact rationalization. In fact, having worked with hundreds of entrepreneurs, I have seen rsthand how

often a promising start leads to failure. The grim reality is that most startups fail. Most new products are not successful. Most new ventures do not live up to their potential.

Yet the story of perseverance, creative genius, and hard work persists. Why is it so popular? I think there is something deeply appealing about this modern-day rags-to-riches story. It makes success seem inevitable if you just have the right stu . It means that the mundane details, the boring stu , the smal individual choices don’t mat er. If we build it, they wil come. When we fail, as so many of us do, we have a ready-made excuse: we didn’t have the right stu . We weren’t visionary enough or weren’t in the right place at the right time.

After more than ten years as an entrepreneur, I came to reject that line of thinking. I have learned from both my own successes and failures and those of many others that it’s the boring stu that mat ers the most. Startup success is not a consequence of good genes or being in the right place at the right time. Startup success can be engineered by fol owing the right process, which means it can be engineered by fol owing the right process, which means it can be learned, which means it can be taught.

Entrepreneurship is a kind of management. No, you didn't read that wrong. We have wildly divergent associations with these two words, entrepreneurship and management. Lately, it seems that one is cool, innovative, and exciting and the other is dul , serious, and bland. It is time to look past these preconceptions.

Let me tel you a second startup story. It's 2004, and a group of founders have just started a new company. Their previous company had failed very publicly. Their credibility is at an al -time low. They have a huge vision: to change the way people communicate by using a new technology cal ed avatars (remember, this was before James Cameron's blockbuster movie). They are fol owing a visionary named Wil Harvey, who paints a compel ing picture: people connecting with their friends, hanging out online, using avatars to give them a combination of intimate connection and safe anonymity. Even bet er, instead of having to build al the clothing, furniture, and accessories these avatars would need to accessorize their digital lives, the customers would be enlisted to build those things and sel them to one another.

The engineering chal enge before them is immense: creating virtual worlds, user-generated content, an online commerce engine,

micropayments, and—last but not least—the three-dimensional avatar technology that can run on anyone's PC.

I'm in this second story, too. I'm a cofounder and chief technology o cer of this company, which is cal ed IMVU. At this point in our careers, my cofounders and I are determined to make new mistakes. We do everything wrong: instead of spending years perfecting our technology, we build a minimum viable product, an early product that is terrible, ful of bugs and crash-your-computer-yes-real y stability problems. Then we ship it to customers way before it's ready. And we charge money for it. After securing initial customers, we change the product constantly—much too fast by traditional standards—shipping new versions of our product dozens of times every single day.

We real y did have customers in those early days—true visionary early adopters—and we often talked to them and asked for their early adopters—and we often talked to them and asked for their feedback. But we emphatical y did not do what they said. We viewed their input as only one source of information about our product and overal vision. In fact, we were much more likely to run experiments on our customers than we were to cater to their

whims.

Traditional business thinking says that this approach shouldn't work, but it does, and you don't have to take my word for it. As you'l see throughout this book, the approach we pioneered at IMVU has become the basis for a new movement of entrepreneurs around the world. It builds on many previous management and product development ideas, including lean manufacturing, design thinking, customer development, and agile development. It represents a new approach to creating continuous innovation. It's cal ed the Lean Startup.

Despite the volumes writ en on business strategy, the key at ributes of business leaders, and ways to identify the next big thing, innovators stil struggle to bring their ideas to life. This was the frustration that led us to try a radical new approach at IMVU, one characterized by an extremely fast cycle time, a focus on what customers want (without asking them), and a scienti c approach to making decisions.

ORIGINS OF THE LEAN STARTUP

I am one of those people who grew up programming computers, and so my journey to thinking about entrepreneurship and

management has taken a circuitous path. I have always worked on the product development side of my industry; my partners and bosses were managers or marketers, and my peers worked in engineering and operations. Throughout my career, I kept having the experience of working incredibly hard on products that ultimately failed in the marketplace.

At rst, largely because of my background, I viewed these as technical problems that required technical solutions: bet er architecture, a bet er engineering process, bet er discipline, focus, or architecture, a bet er engineering process, bet er discipline, focus, or product vision. These supposed xes led to stil more failure. So I read everything I could get my hands on and was blessed to have had some of the top minds in Silicon Val ey as my mentors. By the time I became a cofounder of IMVU, I was hungry for new ideas about how to build a company.

I was fortunate to have cofounders who were wil ing to experiment with new approaches. They were fed up—as I was—by the failure of traditional thinking. Also, we were lucky to have Steve Blank as an investor and adviser. Back in 2004, Steve had just begun preaching a new idea: the business and marketing functions

of a startup should be considered as important as engineering and product development and therefore deserve an equal y rigorous methodology to guide them. He cal ed that methodology Customer Development, and it o ered insight and guidance to my daily work as an entrepreneur.

Meanwhile, I was building IMVU's product development team, using some of the unorthodox methods I mentioned earlier. Measured against the traditional theories of product development I had been trained on in my career, these methods did not make sense, yet I could see rsthand that they were working. I struggled to explain the practices to new employees, investors, and the founders of other companies. We lacked a common language for describing them and concrete principles for understanding them.

I began to search outside entrepreneurship for ideas that could help me make sense of my experience. I began to study other industries, especial y manufacturing, from which most modern theories of management derive. I studied lean manufacturing, a process that originated in Japan with the Toyota Production System, a completely new way of thinking about the manufacturing of physical goods. I found that by applying ideas from lean

manufacturing to my own entrepreneurial chal enges—with a few tweaks and changes—I had the beginnings of a framework for making sense of them.

This line of thought evolved into the Lean Startup: the application of lean thinking to the process of innovation.

IMVU became a tremendous success. IMVU customers have

IMVU became a tremendous success. IMVU customers have

created more than 60 mil ion avatars. It is a pro table company with annual revenues of more than $50 mil ion in 2011, employing more than a hundred people in our current o ces in Mountain View, California. IMVU's virtual goods catalog—which seemed so risky years ago—now has more than 6 mil ion items in it; more than 7,000 are added every day, almost al created by customers.

As a result of IMVU's success, I began to be asked for advice by other startups and venture capitalists. When I would describe my experiences at IMVU, I was often met with blank stares or extreme skepticism. The most common reply was "That could never work!"

My experience so ew in the face of conventional thinking that most people, even in the innovation hub of Silicon Val ey, could not wrap their minds around it.

Then I started to write, rst on a blog cal ed Startup Lessons Learned, and speak—at conferences and to companies, startups, and venture capitalists—to anyone who would listen. In the process of being cal ed on to defend and explain my insights and with the col aboration of other writers, thinkers, and entrepreneurs, I had a chance to re ne and develop the theory of the Lean Startup beyond its rudimentary beginnings. My hope al along was to nd ways to eliminate the tremendous waste I saw al around me: startups that built products nobody wanted, new products pul ed from the shelves, countless dreams unrealized.

Eventual y, the Lean Startup idea blossomed into a global movement. Entrepreneurs began forming local in-person groups to discuss and apply Lean Startup ideas. There are now organized communities of practice in more than a hundred cities around the world.1 My travels have taken me across countries and continents. Everywhere I have seen the signs of a new entrepreneurial renaissance. The Lean Startup movement is making entrepreneurship accessible to a whole new generation of founders who are hungry for new ideas about how to build successful companies.

Although my background is in high-tech software entrepreneurship, the movement has grown way beyond those entrepreneurship, the movement has grown way beyond those roots. Thousands of entrepreneurs are put ing Lean Startup principles to work in every conceivable industry. I've had the chance to work with entrepreneurs in companies of al sizes, in di erent industries, and even in government. This journey has taken me to places I never imagined I'd see, from the world's most elite venture capitalists, to Fortune 500 boardrooms, to the Pentagon. The most nervous I have ever been in a meeting was when I was at empting to explain Lean Startup principles to the chief information o cer of the U.S. Army, who is a three-star general (for the record, he was extremely open to new ideas, even from a civilian like me).

Pret y soon I realized that it was time to focus on the Lean Startup movement ful time. My mission: to improve the success rate of new innovative products worldwide. The result is the book you are reading.

THE LEAN STARTUP METHOD

This is a book for entrepreneurs and the people who hold them

accountable. The ve principles of the Lean Startup, which inform al three parts of this book, are as fol ows:

1. Entrepreneurs are everywhere. You don't have to work in a garage to be in a startup. The concept of entrepreneurship includes anyone who works within my de nition of a startup: a human institution designed to create new products and services under conditions of extreme uncertainty. That means entrepreneurs are everywhere and the Lean Startup approach can work in any size company, even a very large enterprise, in any sector or industry.

2. Entrepreneurship is management. A startup is an institution, not just a product, and so it requires a new kind of management speci cal y geared to its context of extreme uncertainty. In fact, as I wil argue later, I believe "entrepreneur" should be considered a

wil argue later, I believe "entrepreneur" should be considered a

job title in al modern companies that depend on innovation for their future growth.

3. Validated learning. Startups exist not just to make stu , make money, or even serve customers. They exist to learn how to build a sustainable business. This learning can be validated scienti cal y by running frequent experiments that al ow entrepreneurs to test each

element of their vision.

4. Build-Measure-Learn. The fundamental activity of a startup is to turn ideas into products, measure how customers respond, and then learn whether to pivot or persevere. Al successful startup processes should be geared to accelerate that feedback loop.

5. Innovation accounting. To improve entrepreneurial outcomes and hold innovators accountable, we need to focus on the boring stu : 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.

Why Startups Fail

Why are startups failing so badly everywhere we look?

The rst problem is the al ure of a good plan, a solid strategy, and thorough market research. In earlier eras, these things were indicators of likely success. The overwhelming temptation is to apply them to startups too, but this doesn't work, because startups operate with too much uncertainty. Startups do not yet know who their customer is or what their product should be. As the world becomes more uncertain, it gets harder and harder to predict the future. The old management methods are not up to the task.

Planning and forecasting are only accurate when based on a long, stable operating history and a relatively static environment. Startups stable operating history and a relatively static environment. Startups have neither.

The second problem is that after seeing traditional management fail to solve this problem, some entrepreneurs and investors have thrown up their hands and adopted the “Just Do It” school of startups. This school believes that if management is the problem, chaos is the answer. Unfortunately, as I can at est rsthand, this doesn’t work either.

It may seem counterintuitive to think that something as disruptive, innovative, and chaotic as a startup can be managed or, to be accurate, must be managed. Most people think of process and management as boring and dul , whereas startups are dynamic and exciting. But what is actual y exciting is to see startups succeed and change the world. The passion, energy, and vision that people bring to these new ventures are resources too precious to waste. We can—and must—do bet er. This book is about how.

and must—do bet er. This book is about how.

HOW THIS BOOK IS ORGANIZED

This book is divided into three parts: “Vision,” “Steer,” and “Accelerate.”

“Vision” makes the case for a new discipline of entrepreneurial management. I identify who is an entrepreneur, de ne a startup, and articulate a new way for startups to gauge if they are making progress, cal ed validated learning. To achieve that learning, we’l see that startups—in a garage or inside an enterprise—can use scienti c experimentation to discover how to build a sustainable business.

“Steer” dives into the Lean Startup method in detail, showing one major turn through the core Build-Measure-Learn feedback loop. Beginning with leap-of-faith assumptions that cry out for rigorous testing, you’l learn how to build a minimum viable product to test those assumptions, a new accounting system for evaluating whether you’re making progress, and a method for deciding whether to pivot (changing course with one foot anchored to the ground) or persevere.

In “Accelerate,” we’l explore techniques that enable Lean Startups to speed through the Build-Measure-Learn feedback loop as quickly as possible, even as they scale. We’l explore lean

manufacturing concepts that are applicable to startups, too, such as the power of smal batches. We'l also discuss organizational design, how products grow, and how to apply Lean Startup principles beyond the proverbial garage, even inside the world's largest companies.

MANAGEMENT'S SECOND CENTURY

As a society, we have a proven set of techniques for managing big companies and we know the best practices for building physical products. But when it comes to startups and innovation, we are stil shooting in the dark. We are relying on vision, chasing the "great shooting in the dark. We are relying on vision, chasing the "great men" who can make magic happen, or trying to analyze our new products to death. These are new problems, born of the success of management in the twentieth century.

This book at empts to put entrepreneurship and innovation on a rigorous footing. We are at the dawn of management's second century. It is our chal enge to do something great with the opportunity we have been given. The Lean Startup movement seeks to ensure that those of us who long to build the next big thing wil have the tools we need to change the world.

Part One

Part One

VISION

○ ○ ○

1START

ENTREPRENEURIAL MANAGEMENT

Building a startup is an exercise in institution building; thus, it necessarily involves management. This often comes as a surprise to aspiring entrepreneurs, because their associations with these two words are so diametrical y opposed. Entrepreneurs are rightly wary of implementing traditional management practices early on in a startup, afraid that they wil invite bureaucracy or stifle creativity. Entrepreneurs have been trying to t the square peg of their unique problems into the round hole of general management for decades. As a result, many entrepreneurs take a “just do it” at itude, avoiding al forms of management, process, and discipline. Unfortunately, this approach leads to chaos more often than it does to success. I should know: my rst startup failures were al of this kind.

The tremendous success of general management over the last

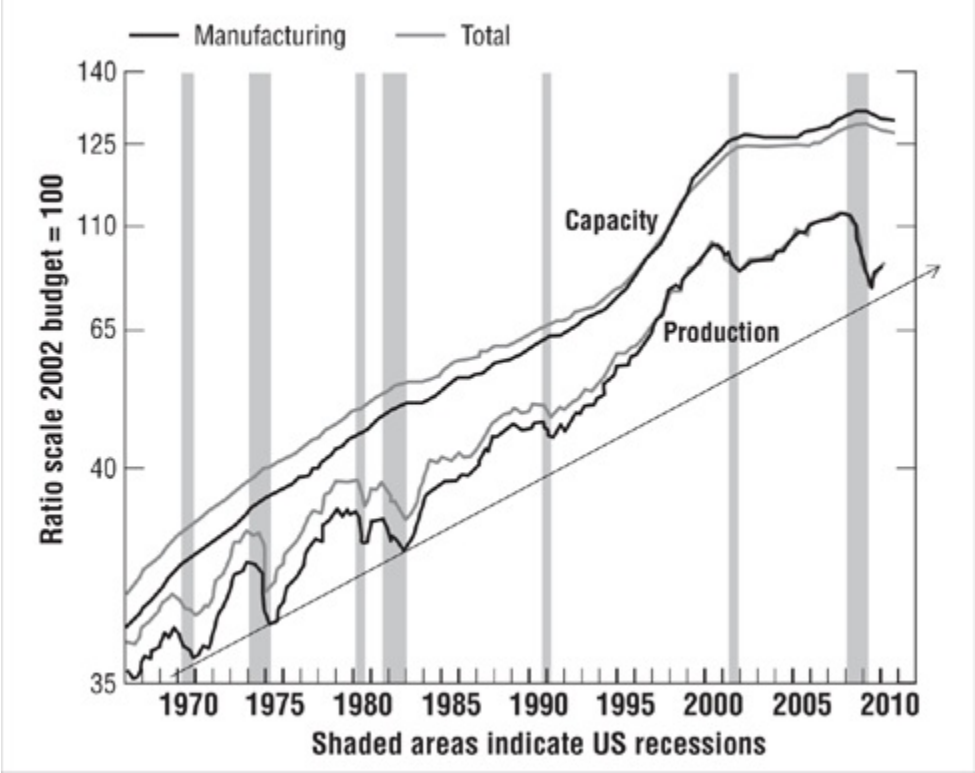
century has provided unprecedented material abundance, but those management principles are il suited to handle the chaos and uncertainty that startups must face.

I believe that entrepreneurship requires a managerial discipline to harness the entrepreneurial opportunity we have been given.

There are more entrepreneurs operating today than at any previous time in history. This has been made possible by dramatic previous time in history. This has been made possible by dramatic changes in the global economy. To cite but one example, one often hears commentators lament the loss of manufacturing jobs in the United States over the previous two decades, but one rarely hears about a corresponding loss of manufacturing capability. That's because total manufacturing output in the United States is increasing (by 15 percent in the last decade) even as jobs continue to be lost (see the charts below). In e ect, the huge productivity increases made possible by modern management and technology have created more productive capacity than rms know what to do with.1

We are living through an unprecedented worldwide entrepreneurial renaissance, but this opportunity is laced with peril.

Because we lack a coherent management paradigm for new innovative ventures, we're throwing our excess capacity around with wild abandon. Despite this lack of rigor, we are nding some ways to make money, but for every success there are far too many failures: products pul ed from shelves mere weeks after being launched, high-pro le startups lauded in the press and forgot en a few months later, and new products that wind up being used by nobody. What makes these failures particularly painful is not just the economic damage done to individual employees, companies, and investors; they are also a colossal waste of our civilization's most precious resource: the time, passion, and skil of its people. The Lean Startup movement is dedicated to preventing these failures.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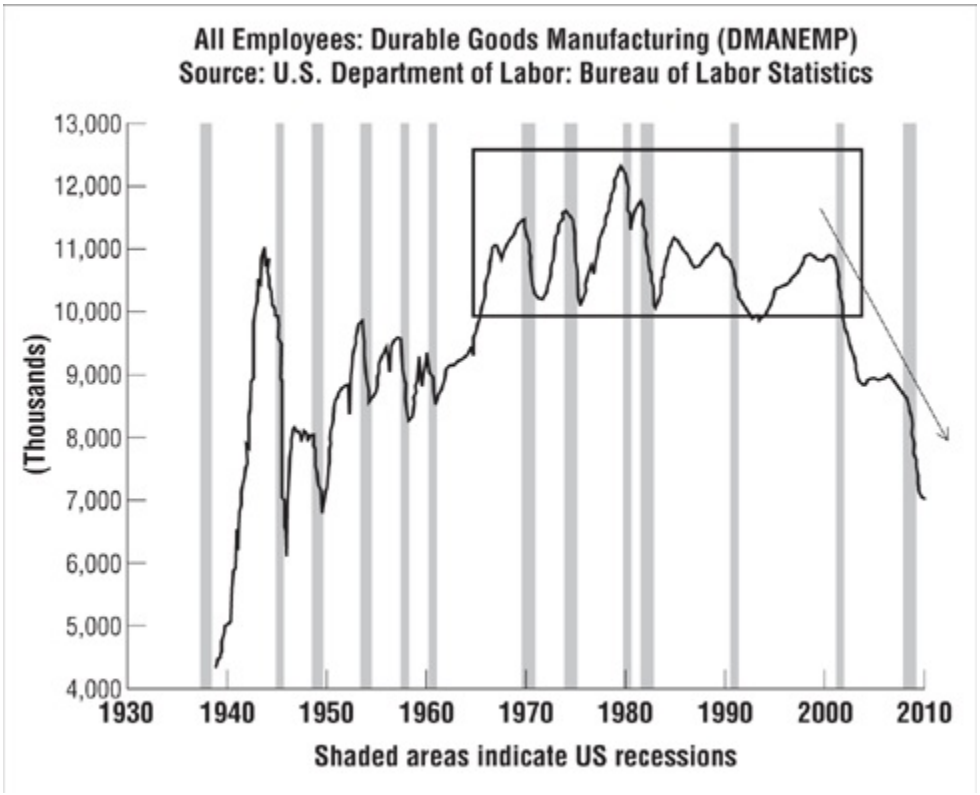
Shaded areas indicate US recessions


All Employees: Durable Goods Manufacturing (DMANEMP)
Source: U.S. Department of Labor: Bureau of Labor Statistics
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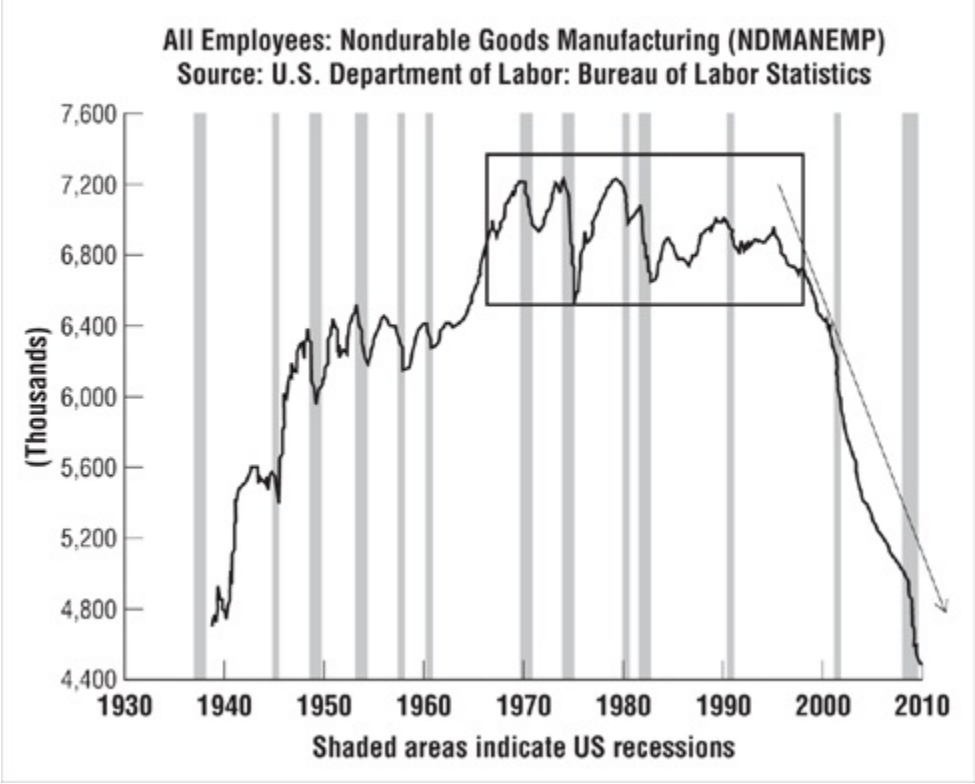


THE ROOTS OF THE LEAN STARTUP

The Lean Startup takes its name from the lean manufacturing revolution that Tai chi Ohno and Shigeo Shingo are credited with developing at Toyota. Lean thinking is radical y altering the way supply chains and production systems are run. Among its tenets are drawing on the knowledge and creativity of individual workers, the shrinking of batch sizes, just-in-time production and inventory control, and an acceleration of cycle times. It taught the world the di erence between value-creating activities and waste and showed how to build quality into products from the inside out.

The Lean Startup adapts these ideas to the context of

entrepreneurship, proposing that entrepreneurs judge their progress di erently from the way other kinds of ventures do. Progress in di erently from the way other kinds of ventures do. Progress in manufacturing is measured by the production of high-quality physical goods. As we'l see in Chapter 3, the Lean Startup uses a di erent unit of progress, cal ed validated learning. With scientific learning as our yardstick, we can discover and eliminate the sources of waste that are plaguing entrepreneurship.

A comprehensive theory of entrepreneurship should address al the functions of an early-stage venture: vision and concept, product development, marketing and sales, scaling up, partnerships and distribution, and structure and organizational design. It has to provide a method for measuring progress in the context of extreme uncertainty. It can give entrepreneurs clear guidance on how to make the many trade-o decisions they face: whether and when to invest in process; formulating, planning, and creating infrastructure; when to go it alone and when to partner; when to respond to feedback and when to stick with vision; and how and when to invest in scaling the business. Most of al , it must al ow entrepreneurs to make testable predictions.

For example, consider the recommendation that you build cross-functional teams and hold them accountable to what we cal learning milestones instead of organizing your company into strict functional departments (marketing, sales, information technology, human resources, etc.) that hold people accountable for performing wel in their specialized areas (see Chapter 7). Perhaps you agree with this recommendation, or perhaps you are skeptical. Either way, if you decide to implement it, I predict that you pret y quickly wil get feedback from your teams that the new process is reducing their productivity. They wil ask to go back to the old way of working, in which they had the opportunity to "stay e cient" by working in larger batches and passing work between departments. It's safe to predict this result, and not just because I have seen it many times in the companies I work with. It is a straightforward prediction of the Lean Startup theory itself. When people are used to evaluating their productivity local y, they feel that a good day is one in which they did their job wel al day. When I worked as a programmer, that meant eight straight hours of programming without interruption. That was a good day. In contrast, if I was

without interruption. That was a good day. In contrast, if I was interrupted with questions, process, or—heaven forbid—meetings, I felt bad. What did I real y accomplish that day? Code and product features were tangible to me; I could see them, understand them, and show them of . Learning, by contrast, is frustratingly intangible. The Lean Startup asks people to start measuring their productivity di erently. Because startups often accidental y build something nobody wants, it doesn't mat er much if they do it on time and on budget. The goal of a startup is to gure out the right thing to build—the thing customers want and wil pay for—as quickly as possible. In other words, 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, al at the same time.

Henry Ford is one of the most successful and celebrated entrepreneurs of al time. Since the idea of management has been bound up with the history of the automobile since its rst days, I believe it is t ing to use the automobile as a metaphor for a startup.

An internal combustion automobile is powered by two important

and very di erent feedback loops. The rst feedback loop is deep inside the engine. Before Henry Ford was a famous CEO, he was an engineer. He spent his days and nights tinkering in his garage with the precise mechanics of get ing the engine cylinders to move. Each tiny explosion within the cylinder provides the motive force to turn the wheels but also drives the ignition of the next explosion. Unless the timing of this feedback loop is managed precisely, the engine wil sput er and break down.

Startups have a similar engine that I cal the engine of growth.

The markets and customers for startups are diverse: a toy company, a consulting rm, and a manufacturing plant may not seem like they have much in common, but, as we'l see, they operate with the same engine of growth.

Every new version of a product, every new feature, and every

Every new version of a product, every new feature, and every

new marketing program is an at empt to improve this engine of growth. Like Henry Ford's tinkering in his garage, not al of these changes turn out to be improvements. New product development happens in ts and starts. Much of the time in a startup's life is spent tuning the engine by making improvements in product,

marketing, or operations.

The second important feedback loop in an automobile is between the driver and the steering wheel. This feedback is so immediate and automatic that we often don't think about it, but it is steering that di erentiates driving from most other forms of transportation. If you have a daily commute, you probably know the route so wel that your hands seem to steer you there on their own accord. We can practical y drive the route in our sleep. Yet if I asked you to close your eyes and write down exactly how to get to your o ce—not the street directions but every action you need to take, every push of hand on wheel and foot on pedals—you'd nd it impossible. The choreography of driving is incredibly complex when one slows down to think about it.

By contrast, a rocket ship requires just this kind of in-advance calibration. It must be launched with the most precise instructions on what to do: every thrust, every ring of a booster, and every change in direction. The tiniest error at the point of launch could yield catastrophic results thousands of miles later.

Unfortunately, too many startup business plans look more like they are planning to launch a rocket ship than drive a car. They

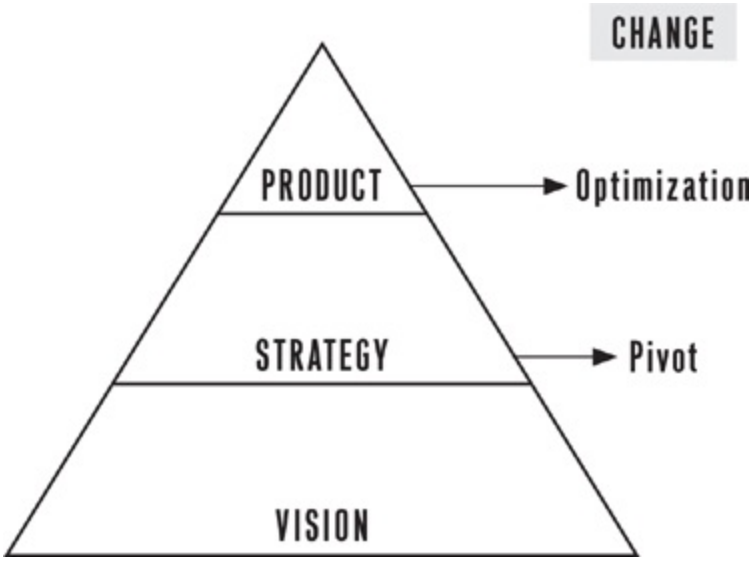
prescribe the steps to take and the results to expect in excruciating detail, and as in planning to launch a rocket, they are set up in such a way that even tiny errors in assumptions can lead to catastrophic outcomes.

One company I worked with had the misfortune of forecasting signi cant customer adoption—in the mil ions—for one of its new products. Powered by a splashy launch, the company successful y executed its plan. Unfortunately, customers did not ock to the product in great numbers. Even worse, the company had invested in massive infrastructure, hiring, and support to handle the in ux of customers it expected. When the customers failed to materialize, the customers it expected. When the customers failed to materialize, the company had commit ed itself so completely that they could not adapt in time. They had “achieved failure”—successful y, faithful y, and rigorously executing a plan that turned out to have been ut erly flawed.

The Lean Startup method, in contrast, is designed to teach you 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 steering wheel cal ed the Build-Measure-Learn feedback

loop. Through this process of steering, we can learn when and if it's time to make a sharp turn cal ed a pivot or whether we should persevere along our current path. Once we have an engine that's revved up, the Lean Startup o ers methods to scale and grow the business with maximum acceleration.

Throughout the process of driving, you always have a clear idea of where you're going. If you're commuting to work, you don't give up because there's a detour in the road or you made a wrong turn. You remain thoroughly focused on get ing to your destination. Startups also have a true north, a destination in mind: creating a thriving and world-changing business. I cal that a startup's vision. To achieve that vision, startups employ a strategy, which includes a business model, a product road map, a point of view about partners and competitors, and ideas about who the customer wil be. The product is the end result of this strategy (see the chart on this page).



Products change constantly through the process of optimization, what I cal tuning the engine. Less frequently, the strategy may have to change (cal ed a pivot). However, the overarching vision rarely changes. Entrepreneurs are commit ed to seeing the startup through to that destination. Every setback is an opportunity for learning how to get where they want to go (see the chart below).

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