

THE PRAGMATIST'S GUIDE TO CORPORATE LEAN STRATEGY

INCORPORATING LEAN STARTUP
AND LEAN ENTERPRISE PRACTICES IN
YOUR BUSINESS

Michael Nir

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The Pragmatist's Guide to Corporate Lean Strategy: Incorporating Lean Startup and Lean Enterprise Practices in Your Business

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Advance praise for *The Pragmatist's Guide to Corporate Lean Strategy*

“Michael has demystified ‘simplification’ with this in-depth review of lean. Each chapter is easy to implement with research and best practices presented so there is a direct translation to applicability for corporate entities.”

—Matt Brooks, Vice President,
Data and Analytics Culture Transformation, GE

“Michael Nir walks you through corporate lean strategy in a step-by-step manner so you can be successful in today’s constantly changing and complex world. Tips, best practices, and anti-patterns show you direction, while mini-stories of success and failure of an enterprise lean agile transformation provide a reality check.”

—Zuzana (Zuzi) Sochova, Agile and Enterprise Coach;
Certified Scrum Trainer; Author of *The Great ScrumMaster Book*;
Board member, Scrum Alliance

“Michael Nir boils down advanced concepts into a framework that can be used to evolve organizations, independent of their size, so you can transform an organization into a customer-centric organization.”

—Klas Skogmar, Entrepreneur
and Management Consultant, Arkatay Consulting

“Michael explains the differences between adopting lean/agile ways of working in small and medium organizations vs. the more complex dynamics of enterprises with 500-plus people. He teaches how to overcome challenges and successfully turn a corporate ‘oil tanker’ into a nimble ‘flotilla,’ all working together toward a common goal.”

—Shane Hastie,
Director of Agile Learning Programs at ICAgile

“I always ask myself whether a book is ‘readable,’ ‘referenceable,’ ‘relevant,’ and ‘realistic.’ (I have a personal issue with pure theory unproven by real-life experience). In the case of this book, the answers are all a loud ‘Yes.’”

—Peter Taylor, Head of Global PMO at Aptos Retail

“Michael Nir synthesizes the five essential elements for a lean agile transformation; explains how they differ when applied to organizations that are not startups; and provides a concrete timeline for a successful lean agile transformation.”

—Yuan Cheng, SVP, Engineering at Everbridge

“I’ve seen this approach first hand, and it works. If you’re an executive, leader, or practitioner and you want to make sure you’re building the right product, this book is for you.”

—Richard Kasperowski, Speaker, Trainer, Coach,
and Author focused on high-performance teams

“In this book Michael Nir asks critical questions for leaders to consider when managing innovation. This must-read guide extends the findings of Ries’ *The Lean Startup* by getting to the root of what drives innovation and how leaders tick. Not only does the author consider why leaders in organizations should innovate, he also provides nuts-and-bolts advice on how they can optimize their practices to encourage innovation in the organization so the organization can be an innovation leader.”

—Dr. Gail Ferreira, Innovation Lean-Agile Leader

“As a veteran of five startups and three multi-billion dollar companies, I know that a 10,000 person company is more than just 100 startups stuck together. Michael Nir understands this. In his book, he shows you how to deal with the reality that as companies grow, they develop a culture that is deeply embedded in their hierarchy. He presents a framework and specific techniques for breaking through the resistance and installing a mindset of experimentation and learning. He provides examples from his personal experience that show how to stay true to the principles of lean startup combined with the agile mindset, design thinking, and Lean UX and overcome challenges during your organization’s enterprise-wide agile journey.”

—David Grabel, Enterprise Agile Coach,
Treasurer and Former President of Agile New England

“Michael Nir is a first-class lean agile coach who has written a practical guide and clearly articulates theory while diving into tangible examples and stories from his field of work. Executives at any large organization will want to read this book as it covers all the major challenges organizations face and provides tangible guidance, with examples, data, and theory to back it up. After working with Michael for many years, I can attest to his success and credibility as a brilliant coach who always puts organizational results first.”

—Zubin Irani, Founder and CEO of cPrime, Inc.,
an Alten Group Company

“This book is a must-read for anyone interested in succeeding at organizational improvement. I’ve been in several situations where in hindsight I wish I could have gift this book to the decision makers leading their organization’s transformation journey. You won’t regret reading this book.”

—Scott Ambler, Fellow, Disciplined Agile Consortium,
Co-Author, *An Executive’s Guide to Disciplined Agile:
Winning the Race to Business Agility*

To all those still searching for their true calling.

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About the Author



Michael Nir is a keynote speaker, bestselling author, and Lean Agile Inspiration Expert, known for his passion, creativity, and innovation.

His Masters in Engineering, certification in Project Management, and training in gestalt balance his technical know-how with emotional intelligence. He inspires people and teams to change, experientially and emotionally, while climbing the hill AND reaching the summit.

The author of nine books on influence, consumer experience, and agile project management, Michael delivers practical skills gained from 18 years of experience leading change at global organizations in diverse industries such as Intel, Philips Healthcare, United Healthcare, DnB, Volvo, JPMorgan Chase, Citi, Unilever, and many others. He is masterful at connecting the dots between human behavior, business systems, and work environment to drive highly productive teams and lead individuals to communicate effectively.

Michael draws on unique personal experiences that provide him with valuable insight. During college in Israel, he led groups of adolescents on excursions through the desert, observing natural leadership behaviors in team settings. Later, on a hike to Alaska, he had to face down a 250-pound grizzly bear, giving him a dramatic taste of what it's like to influence a powerful and threatening personality using wits alone.

Michael was born in Los Angeles and resides in Boston. He travels extensively to Europe and East Asia to provide consulting and facilitating training. He understands people, organizations, and cultures and is comfortable leading cross-functional and cross-cultural workshops.

A passionate guide and mentor for organizations undergoing change, he has also developed lean startup training and delivery programs as well as gestalt team-building and conflict management workshops.

You can reach Michael at his website (<http://michaelnir.com/>) and by email at m.nir@sapir-cs.com.

Foreword

Software has eaten the world, and now the pace of technological change is eating companies that try to operate without a lean mindset. Large enterprises must transform to compete and thrive in the modern digital economy. This requires operating with a lean mindset from top to bottom and side to side to keep up with the rapidly accelerating pace of change. A transformation of this magnitude is daunting for even the world's most admired companies because the required shift in mindset, culture, and practice impacts the entire organization. So how do you go from business as usual to a technology-enabled disruptor that can rapidly adapt and respond?

Michael answers one of the hardest questions executives and transformation leaders face in the modern economy: Where do I begin my journey to enterprise agility? He brings together the best of lean startup, scaled agile, Lean UX, design thinking, and DevOps, distilling the most important principles into 30-day, 90-day, and 1-year guides to help you focus on customers from the onset, communicate your vision, synthesize an operating model, measure what truly matters, and take steps to pivot while preserving what works.

Michael explains the keys to success: falling in love with the challenge, not the problem; fostering an environment of enterprise agility; and rapidly learning via lean experiments that drive transformation to build a corporate machine that innovates like a startup. Michael's use of lean analogies and anti-patterns, combined with his in-depth knowledge and experience in the field of transformation, make his book a great read for every executive, software leader, and transformation expert responsible for leading change in large corporation.

—Steve Elliot
Founder and CEO of Agilecraft

Acknowledgments

This book would have been published by my company, Sapir Consulting US, like I've done nine times before if not for Mariya Breyter who, inspired by my prior books, encouraged me to write a book summarizing my experience with lean agile strategy and implementation. This was an autumn Friday in October 2017. By Sunday, Mariya shared the proposal with Shiva from Apress. The end result you are holding in your hands. We spent many hours on video discussing the approach for this book. Thank you, Mariya, for your family's patience during those long weekend sessions and for your inspiration, innovative feedback, and creative ideas.

When we started collaborating, we actually had a comic book in mind. While that is still out and about (you can view the progress in my newsletter), my spouse's graphical and drawing skills for the book you're reading have been instrumental in providing clarity where words are mute. All drawings in this book were created by her. Thanks, Chen, for the creativity, encouragement, and love. Your art is impactful and inspiring and your true calling.

To the Apress team, Shiva, Rita, and Laura, thanks for providing clarity, supporting me through the process, and making this book a reality; the fast iterative feedback is truly agile and the quick validation is the essence of lean.

After many years abroad, I arrived in Boston a day after the mega-storm of February 2015 to lay the groundwork for homecoming. I had never been to the city before, except for a fleeting drive-through when I was eight years old. Snow piled up into seven-foot-high banks and all was at a standstill. This didn't stop Richard Kasperwoski from meeting with me downtown for lunch and sharing thoughts about agile, the core protocols, gestalt, and more. Richard welcomed me in a way that still moves me. Thanks, Richard, for opening your heart; your kindness has truly touched me and impacted my predisposition to business relationships from which a true friendship blossomed.

That same snowy morning, John Todd from PMI Massbay and Downtown recruiting invited me for a coffee and shared his thoughts about opportunities in the city for an agile expert who just landed. John, your insights and nuggets were highly valuable. Thanks!

Training and coaching lean startup in a non-software enterprise was the result of collaboration with a large insurance company in Indianapolis. Scott McClintic, I don't have many opportunities to co-facilitate. The lean startup

Acknowledgments

workshops we ideated, structured, and facilitated together were valuable and lots of fun. You were the first one to ask where I got the clunky accent and did some research to verify that. I value your perspective and comradery. And I finally learned what an Arnold Palmer is. Relearning how to scale agile with remote teams and tie lean thinking to human-centric design and lean UX in an insurance provider was a journey and there is still more headway to make. John, Doug, Jeff, Jeremy, Ben, Graham, Liz, Sue, and Vijay, we have a long way ahead of us; in the face of digital disruption, we must transform our thinking and deliver the right results faster.

Liza and the cPrime team, the agile and lean training and coaching engagements provided me with perspective, ideas and many stories. cPrime is an amazing company and it's great collaborating with you.

To the Constant Contact team (Ken, Piyum, Jim, Wendy, Sue, Bob and Bob, Damon, Susan, Amanda, Raj, Keith, Arnis, Chris, Gene, and many others), thanks for creating an amazing and stimulating startup-like work environment. I've learned a lot about how agile, Lean UX, innovation labs, scaling, continuous delivery, continuous integration, and OPS should operate together and the challenges in making it work.

Ben Ho, our luncheons in the city where we discuss startups, lean, agile, scaling, software, mobile, and food are an inspiration—gastronomical, cognitive, and cultural.

In March of 2014 I met Henrik Kniberg in Helsingborg, Sweden. We were both speaking at the Swedish Passion for Projects conference. We spent the morning before our talks strolling around the old city and sharing ideas and thoughts. I wasn't aware at the time of who Henrik was and his impact on practical Scrum coaching, and I think he kind of liked it that way. I am delighted that I was ignorant since his practical, matter of fact approach to agile coaching and the way he presented his thoughts impacted my coaching style profusely. Thanks, Henrik.

My daughter's teacher asked the class how many of them don't understand their parents' occupation. A third of the class raised their hands, my daughter included. The truth is I am not sure myself. I like Dean Leaffingwell's answer; he defines himself as a lifelong learner. But that's just evading the question. Maybe this book will provide you a partial answer. I do know, Tal and Rotem, that whoever I am and whatever work I pursue, I am guided by love. Raising children is a lean startup with some human-centric design, consumer focus, and lots of agility. Yes, you can read the books; however, none really prepare you, since parenting is about assumptions, validations, and pivoting. It has been quite a ride so far and I'm looking forward to the years to come, together.

Next time they ask, tell them that your dad is a mountain biker. It'll save you the trouble.

Preface: Cadence Is King

Writing about lean strategy and execution in the enterprise is for me a closing of a circle. In the summer of 2005, I was completing my Masters degree in industrial engineering and taking my first steps as an independent consultant. I was residing in the northern part of Israel, and I was helping local production plants focus on value, eliminate waste in process, and implement Kanban systems. Among my clients were Delmar-Industries, a water control solutions manufacturer; Cabiran, an innovative aluminum casting solution manufacturer; and Milopri, a fruit packing plant for exports.

The two projects that stand out the most were both improvement projects done for Delmar-Industries. Delmar-Industries are experts in water flow management. They design, manufacture, and supply products and solutions to enhance and protect water systems in waterworks, irrigation, buildings, mining, and fire protection.

The first Delmar project had to do with efficiency improvement at a large metal color-coating manufacturing line. The other Delmar project was a lean production physical layout and Kanban system implementation with elements of change transformation since it included two rival groups of Kibbutz members in two adjacent production facilities with a history of discord dating to the founding of Kibbutz Genofar.

It is the first project done in Kibbutz Ein-Debi that I want to share with you, since it really stumped me. The building that housed the large metal-parts color-coating production line was like a complex maze. The metal parts were hung from above on a slow-moving conveyor belt by a team of three. The parts then went into preheating. The core part of the system was color-coating; two employees sprayed the parts using spray guns. Next, the parts went into a curing oven and later into low heat. The last step was unmounting the parts from the conveyor belt and placing them in an orderly fashion on the finished good inventory, ready to be transferred to the next assembly lines.

We were a team of three: Michelle, a bright industrial engineering under graduate who later graduated from INSEAD business school, a part-time intern doing mostly statistical sampling, and myself. As is common for industrial engineering engagements, the problem that we were out to solve was improving efficiency; needless to add that the 20 employees that worked in shifts didn't eye us approvingly. The kickoff meeting was accompanied with mutual suspicion: the employees weren't excited to have a team of snotty

engineers perform a time study in their production line and meddle in their production line kingdom, and we were concerned with the level of cooperation of the team and how to make sure they wouldn't rig the system. To foster trust, we received the VP of Operations and the CEOs guarantee that no jobs will be impacted as a result of the project.

We spent the first month learning the production process, analyzing the sequencing, going through three years' worth of historical data, and performing a time study; we found out very little. There were hundreds of different parts in various sizes and shapes, and the weights of the parts varied dramatically from several pounds to thousands of pounds. Three standard coating colors were applied: green for agriculture, blue for city waterworks, and red for fire protection, the latter of which required the most care. The time taken to preheat and then cure each part was in relation to size and functionality. Switching from colors was a time-consuming ordeal and required scheduling in advance the daily production order. Performing a time study in this complex environment was excruciating and we gained very little understanding as to the average time for a part to go through the entire line.

We quickly understood that the critical step was the manual work of color-coating the metal parts. There were six painters rotating in two shifts, with differing levels of expertise. Considering the possible combinations among painter skillset and experience, part size, shape, weight and color, heating and curing pattern, and switching colors, the problem of identifying the "correct" throughput rate of the production line based on the time for color-coating was intractable. The average time to color-coat ranged from 60 seconds to 8 minutes. On top of which, the painters accelerated and decelerated the speed of the conveyor belt based on their completion rate, curing time, color, shape, and how hot the black coffee was that they were sipping. We were stumped by the magnitude of the problem. The solution eluded us for weeks and we needed inspiration.

I remember sitting with Michelle observing the color-coating process at 10 p.m. on a Sunday night and together trying to formulate the problem we were witnessing. We decided to just observe the painters performing their job, without judging, counting, measuring, and thinking about a solution. We also spent time with the employees: we shared coffee and tea, we shared jokes and stories, and we learned more about the routine work of the color-coating manufacturing line. We were learning into what is known as the "unmeasurables." Thus we observed for a day, and then a week, and a month. Michelle asked me to what end were we observing; back then I couldn't articulate an answer, and yet I knew that by viewing the work where it is performed without being judgmental of the process and the employees, a solution would emerge.

And then, after a month of intermittent observations we noticed a pattern in the data, and the solution dawned on us. Once we had seen it, the answer

was very simple; however, it was so counterintuitive that we had to vet it for a month before we presented it to the executives.

When engineers set to solve a problem of efficiency, or for that matter, any person that is set to tackle a problem of efficiency, they usually focus on accomplishing more or work faster. That's true for almost any problem of efficiency, and there are many such problems that are similar in nature: how can I study faster, how can I complete my tasks faster so I finish the work day and head home, how can I go faster through my emails, how can I complete shopping faster, which is the faster route through traffic, how do I add more features on a product, how do I get more likes on my page, and so on. We measure the time to complete the task and ask ourselves how can we increase time or decrease costs.

However, we often miss the holistic nature of the environment we operate in. We are primed for these problems from a very young age, so we rarely look at the non-work time, the time that we are not engaged in the task; still, the fact remains that most opportunities for increasing the rate of completion or throughput are by addressing the non-work time—the waste. In Japan, where lean thinking originated, they call this non-required work process step *muda*.

During her observations Michelle noticed something odd; that while the painters' direct working time was rather erratic, the combined non-work time for the two painters was complimentary to the work time and both were consistent and a constant. Thus, regardless of the many variables, the combined value of both times across all products could be articulated easily.

We both knew the value of one piece flow and Takt time; both are lean manufacturing concepts that have later been adapted to agile project management. Takt time, or cadence, is the average time between the start of production of one unit and the start of production of the next unit. These production times are set to match the rate of customer demand. Our problem was how to define the cadence for the coloring production line with the various moving parts and the internal consumer demand. Now we had an answer, a simple solution that was hard to accept and counterintuitive. I mentioned previously that the average time to color-coat ranged from 60 seconds to 8 minutes. We analyzed the data and noticed that the parts taking more than 7 minutes were outliers and occurred only when the coffee was too hot or due to external impacts. Actually, most parts were colored in 2 to 5 minutes. However, the perception of the painters was that they were working very hard all the time, which was true since they were missing a constant rhythm. They didn't have a sense of a beat; rather the parts kept coming erratically and they were frantically keeping up. This impacted the entire line since there was no consistent flow.

So what if we slowed the line for all the parts to 6 minutes? Reflect about that for a moment. What are the benefits accomplished by identifying a constant rate? Naturally it brings order to a chaotic system; it allows all the employees to plan around a consistent order and flow. I mentioned that the production line was like a maze; by introducing cadence to the system, the employees could now experience the same flow without seeing one another. We could mount clocks with counters that showed the progress of the cadence. It was truly revolutionary. It was bringing order from chaos.

Naturally the painters and others employees in the production line were ecstatic; we'd actually given them permission to work slower, or rather, work relaxed. The line managers and the VP of Operations were happy to have predictability. That said, we needed to persuade the color-coating department manager to make the change since it impacted his operations. On top of all, the executive leaders were happy. Overall completion rate was improved by 23% without any capital investment. The definition of a cadence also impacted upstream incoming inventory and downstream production; other centers of the factory could align to the cadence and thus inventory levels could be reduced since the constant rhythm reduced jitter or randomness. Last but not least, while traditionally, assigning direct labor standard-cost-per part is tricky, specifically when each part has its own color coating duration and there are thousands of variants, our solution made standard-part-cost pricing effortless since all parts had the same direct labor cost. Talk about a win-win solution!

Michelle and I were perplexed to see the result unfold before our eyes and were surprised to see how simple the solution had been.

I learned a crucial lesson from that project: always search for the simple solution. Often that solution is hidden in plain sight. It is within reach; however, it requires asking the right questions and moving away from traditional assumptions. Less is often more and cadence is king.

Later on I found that this is a recurring pattern for successful consulting engagements.

Introduction: Microwave Thinking

It's all in the microwave: the problem, the needs, the decisions, the product solution, and the waste, the incredible waste.

Do you own a microwave?

You probably do.

Take a short trip to your kitchen and have a look.

How many buttons are on your microwave's keypad? How many features does it offer? How many pre-preprogrammed options are available?

Now, honestly, how many do you actually use?

If you are like most people that I've met, you probably use two or three, four max.

Most people readily admit to using just one button. I'm guilty of the same; I place the food-loaded plate onto the revolving dish, close the door, and without hesitation press the 1-minute cook button.

Sometimes I'll hit it three, four, or ten times, depending on what I'm heating, basing my decision on trial and error, or in other words, previous times I used the appliance.

I know that there's a specific button for cooking a sweet potato and another for meat and yet another for soup. I read the instructions at one point and actually tried the features out, but I just can't remember if pressing the button once cooks a single sweet potato that weighs between 10 to 15 ounces or maybe it is for two sweet potatoes? Who cares? I just want a cooked meal, and so, like so many others, I'll hit the one-minute fast cooking button a couple of times and hope for the best.

Based on feedback I've received in numerous presentations and workshops I delivered, I think I am in good company. Many of us don't really care about the plethora of features our microwave offers.

We buy them, but we don't use them the way they are engineered to be used.

Don't even get me started about universal remotes. If you are over 20 years old, you'll remember those gigantic devices with over 115 buttons. How I

Product development blames engineering for spending too much time creating the optimal solution, over-engineering the solution, and missing the deadlines.

Marketing blames product development for messing up with the consumer and meddling in the marketing turf.

Operations blames marketing and engineering for delivering unsupportable products and sales for selling them.

And sales, they blame everyone.

At the end of the day, it's those low-paid consumer reps that have to deal with the aftermath of the overly complex widgets that are sold.

On top of all, the businesses always blame the consumer—for not knowing what they want, for not using it the way they should, for not reading the manual, and for generally being stupid.

One common joke among business leaders is that if we didn't have those pesky customers, our products would be great.

I once worked with a software shop that created email marketing tools to analyze the return on investment for features it delivered. The analysis validated existing research: approximately 60 to 70% of the features were not used. In other words, they wasted about 70% of their engineering and product development capacity. To put it bluntly, the company could have fired 70% of its 500 engineers and still appreciate the same revenue for that year. This thinking, however, is deceptive, since we never know which of the features would be revenue generating and which wouldn't.

And we weren't stupid. When we crafted the strategy and decided which features would be developed, we were convinced that the ones we selected were the right ones; we focused on the features that would win us the market.

We didn't say, "Hey, let's select some features that we know are wasteful just because we have engineering capacity."

That would have been ludicrous.

We were not stupid, and people are not stupid. People and companies don't create features just for the gist of it. Often, there is a lengthy, tedious, time-consuming process for vetting the features that the company will develop, and yet two-thirds of the time the people and the business are wrong.

Actually, if you ask people at your workplace for the one feature that would be THE game changer for your company, you would receive numerous responses. People provide ideas easily but most of them would be wrong! It is a humbling experience.

Introduction: Microwave Thinking

This problem between what we, the employees, leaders, and managers, think will be the “killer feature” and what actually creates value from a consumer perspective is difficult to accept.

I was sharing the research and my experience with the senior leadership of a software company. The CEO listened intently and then shared his point of view. He told me, “Look, this is all very nice. I sit on many boards of software companies in the Boston area. I agree; there are many stupid board members that I have to live with. But,” he added, “We are different. We are smarter. We are not like the rest of the software companies in the Boston area. We are able to identify the features that we’ll need, develop them, and win the market. The data even supports it!” Later, after I concluded the session, the senior vice president of product approached me. He shared that he verifies that the data always supports the decisions in retrospect, by hiding the feature decisions that were wrong...

By now I hope that you agree with the premise that we, *the people*, create stuff we never use.

Since this challenge is known, have there have been efforts to solve it?

How have companies been approaching the issue of developing the features that we don’t need?

Usually without much success!

Traditionally, businesses tried a catch-all approach of *develop whatever you can and hope for the best*. It worked for some time when consumers didn’t have a choice or access to the Internet; presently it is a surefire method to go out of business.

Another approach was and still is known as *the enlightened leader*. The senior leaders by virtue of their position, experience, and intelligence dictate the strategy and features that need to be developed. They were and still are wrong two-thirds of the times, but nobody tells them.

Technology companies adopt agile development and a slew of other approaches in order to align the developed product with the consumer needs.

They treat agile as a silver bullet without recognizing the limits of agile delivery approaches. They invest in engineering and product delivery, hire coaches and Scrum Masters, and achieve little business impact. Yes, agile helps in speeding the engineering development effort and responding to change; however, faster engineering means that we make the same feature mistakes, yet deliver them faster to the market. In other words, agile doesn’t necessarily remove the feature development waste.

Another approach to solving the mismatch between the features the business delivers and what the consumer needs is design thinking. Design thinking instructs us to interact with the consumer following a five-step method.

One of the manifestations of design thinking can be seen in the proliferation of innovation labs. They ideate features based on consumer needs and create beautiful designs; however, they tend to be segregated from the business. The concept is worthy; however, the implementations are often subpar. The disconnect between the innovation lab's lofty ideas and the product delivery organization frequently make the labs a waste of time, resources, and effort.

Lean UX and UX Strategy try to connect feature delivery and the consumer need, but fall short of achieving it because they are often perceived as an external application of ideas to the core product delivery structure and fail to harness the support of operations, sales, and marketing.

Scaled Agile is trying to be an all-inclusive, one-stop shop, a framework that includes the entire organization; however having its roots in software development, it has a limit in its breadth and has so far been limited in its ability to impact business agility.

Marketing organizes focused groups, runs surveys, and immerses itself in market research; however, they focus on the wrong tools and thus receive the wrong answers since, at heart, we are of a different mindset when we shop for an item and when we use the item. When marketing conducts a focus group for gathering requirements, people are asked about what they want, not what they need. When we are queried, many of us think we want a microwave with lots of options, yet that's not the way we use the appliance. I suggest that if we built microwaves based on their usage, the appliance would appear different. Can you think what it might offer that's different?

Make no mistake; the challenge is not limited to software development. The problem of delivering the wrong feature set is rampant in insurance, banking, automotive, financial, leisure, and other industries.

So, what now? Is it even possible to meet customer needs when the customers themselves generally do not know what they need until they try it out? And even if we do, the world is changing more rapidly than many companies can even build their products. In the era of digital disruption, high customer expectations, and commitment to quality, how can an enterprise of a significant size survive the uncertainty of the business landscape, market demand-related high customer expectations, and produce the products that customers need fast, with excellence, and at scale?

If anyone says that there is a "one solution fits all" answer, they would be unrealistic. However, over years working with multiple enterprises in different industries and observing multiple successes and failures, I noticed that there are patterns that succeed across industries and cultures, and there are anti-patterns that force companies to backslide and lose to the competition. I have been searching for the right sequence for these patterns, and I have synthesized five steps that have universal significance. These patterns are not unknown to the world. They utilize lean, agile, design thinking, lean startup values, and principles in a structured methodical way, allowing for predictable

outcomes in an uncertain business environment. We can use these patterns to create an ecosystem that allows enterprises to rapidly respond to the changing environment while maintaining their historic strengths and market presence.

In this book, I am going to share with you the framework that allows for flexibility of response to the market while maximizing the brand and scale. You are probably wondering how this is possible given the legacy thinking, frequently hierarchical culture, and cost of running an existing business, and you are right. It is extremely difficult.

To explain how is this possible, I'll use an example from software design. By having a modular software architecture, we are able to reuse and maximize the use of software components, as well as retire those that are no longer needed without any impact to the whole ecosystem. A former colleague, who leads one of engineering departments for a health insurance giant, used a great example of a cruise ship vs. a speedboat. It's hard to steer a cruise ship because it's huge and heavy and takes a lot of time and effort to gain momentum. If you have many speed boats with advanced communication mechanisms, you can point as many of them as needed in any direction that is required, as long as they have an ability to align and return back to base to recharge and get ready for the next highest priority task.

Similarly, the framework that I am sharing with you in this book is modular and component-based. Each chapter defines the sequence and the nature of each components, as well as provides implementation examples for companies of different sizes and industries.

My intent in writing this book is to describe the required successful foundation for linking collaborative innovation, cultural transformation, and product execution in the context of true business agility.

Start with Why

Getting Ready for Transformation

The first chapter in this book is Chapter Zero. This naming convention is frequently used in Scrum, one of the agile frameworks, which emphasizes team-based, value-driven, incremental delivery. In order to deliver consistent value, the team needs to ensure that the prerequisites are met: goals and success criteria are defined and shared, the product backlog (prioritized list of deliverables) is established, the cross-functional execution team is available, and everyone is clear on their roles and expectations. There is also a delivery framework in place—agile, lean, or lean startup—that will be followed by the team and the identified stakeholders. The combination of team norms and rules is referred to as a “working agreement.”

I decided to “eat my own dog food” and start this book with a Chapter Zero to align with you on your expectations, my deliverables within the book, and our joint “working agreement.”

A helpful way of introducing a change to the organization is to start by answering simple questions: Why? (What is the ultimate goal we’d like to achieve?), What? (What is the change we want to introduce?), and How? (How are we going to do this?). You can frame any conversation about the change at any level to make it inspirational and compelling to your audience. I am going to use this technique to introduce my book to you so that you can add it to your toolbox, whether you want to inspire your team, align on the approach, or get buy-in from senior management.

In his book *Start with Why*,¹ Simon Sinek suggests that the primary goal of inspiring others is to provide a compelling vision. Following the suggestion above, let's start with Why?

Why Did I Write This Book and Who Is It For?

My goal, based on my experience with transforming enterprises and enabling them to survive in a modern, highly disruptive business environment, is to enable you to envision, plan, and orchestrate this transition. I provide a framework that you can follow in order to achieve success in building an adaptive, value-driven environment of high-performance teams of motivated practitioners who produce results that delight their customers. Based on excellent underlying models, frameworks, and mindsets (lean, agile, the startup way, Lean UX, design thinking, DEVOPS, 4DX, and other adjacent concepts), this approach brings it all together by providing a concise and verified framework that you can follow in implementing positive change in your organization.

The audience of this book includes anyone who is interested in this concept, because everyone is an actor in the enterprise change.

These groups will benefit from the ideas expressed in this book:

- The CEO of the company, who is the sponsor of any major change initiative and who has a vested interest in enabling the company to survive disruption from the market or from its own customers whose preferences change on a daily basis;
- An enterprise-level change agent or leader (enterprise leaders, transformation coaches, and other professionals whose job is to orchestrate the transformation);
- Any employee of the company who is either an early adopter of the change or resists this change because of job security considerations, any other fear, or who genuinely believes that things are going well and there is nothing to change;
- A customer who has a vested interest in resulting outcome.

In sum, everyone is a stakeholder of the enterprise transformation and determines collectively the success of it.

¹Simon Sinek, *Start with Why: How Great Leaders Inspire Everyone to Take Action* (New York, NY: Portfolio, 2011).

“Survival is not compulsory. Improvement is not compulsory, but improvement is necessary for survival.”

—W. Edwards Deming, Statistician and leading management thinker in the field of quality²

Having a consistent and relevant framework of organizational change and improving it on an ongoing basis is a prerequisite of survival for an enterprise and is a prerequisite for building the products that customers need. Disruptions happen in modern business on a daily basis, and it is only a matter of a few years before a disruption gets disrupted by a new one. Consider the experience of paper maps being replaced by GPS devices only to be replaced by similar smartphone functionality within a few years.

There have been many books written about this topic but none that I am aware of provide a clear step-by-step framework allowing the readers to succeed in the fast-paced, customer-centric, value-oriented environment the world experiences today.

As shared above, I started with a “why” following Simon Sinek’s famous approach, which is part of every organizational transformation. Similar to Simon Sinek, I will talk about why some companies achieve things that completely exceed customer expectations, defying all our assumptions for what’s possible, and why some fail despite their prior unquestionable success. There has been a lot written about why companies like Facebook, Amazon, Apple, and Google achieved extraordinary results while Kodak, Blockbuster, and Borders are not in business anymore. While I recognize that the latter companies failed to inspire, provide compelling vision, meet customer needs, and respond to the market, I will test these and similar failures within my model to share a holistic view and organizational transformation timing, needs, success, and failures through these experiences.

Now that I have shared my vision on why such book is needed, let’s talk about “What?”

What Is This Book About?

I will start by describing what this book is not about:

- It is not about the eight phases of change, although it follows John Kotter’s leading change model.³

²Institute for Enterprise Excellence (IEX), Mike Stoecklein, “Side (by Side) Management,” <http://instituteforexcellence.org/wp-content/uploads/2017/07/side-by-side-mgmt-5-1-17-v1.pdf>, July, 2017.

³John Kotter, *Leading Change*, (Watertown, MA: Harvard Business Review Press, 2012).

- It is not about the agile approach and the Scrum method to deliver team-based results as per Sutherland in *Scrum: The Art of Doing Twice the Work in Half the Time*.⁴
- It is not about the scaled agile approach to scaling agile delivery, mostly IT, software and hardware product teams as per Dean Leffingwell.⁵
- It not about entrepreneurial management in driving organizational growth as in *The Startup Way* by Eric Ries.⁶
- It is not about disciplined execution as described in *The 4 Disciplines of Execution: Achieving Your Wildly Important Goals* by Sean Covey and Chris McChesney.⁷
- It is not about the organizational culture change leading to a successful agile transformation, as described by Mario Moreira.⁸
- Finally, it is not about IT aspect of digital transformation in creating a lean enterprise—a high performance organization innovating at scale.⁹

And yet, in some way, it is about all of it. So why write another book after all these excellent books have been published and the concepts above have been widely shared?

To answer this question, let me share a story from a consulting experience.

While working for a large airline company, I admired the customer-centric attitude, family-like atmosphere, and the intrinsic motivation that governed the company throughout almost 50 years of existence. There was no difficulty getting buy-in to do things in a new way, which is required to survive tough market and economic challenges; the challenges were about creating consistent practices across the organization, whether it was relevant to product envisioning, marketing, sales, or software test automation.

⁴Jeff Sutherland and JJ Sutherland, *Scrum: The Art of Doing Twice the Work in Half the Time* (New York, NY: Currency, 2014).

⁵Dean Leffingwell, *SAFe® 4.0 Reference Guide: Scaled Agile Framework® for Lean Software and Systems Engineering* (Boston, MA: Addison-Wesley Professional, 2016).

⁶Eric Ries, *The Startup Way: How Modern Companies Use Entrepreneurial Management to Transform Culture and Drive Long-Term Growth*, (New York, NY: Currency, 2017).

⁷Chris McChesney, Sean Covey, and Jim Huling, *The 4 Disciplines of Execution: Achieving Your Wildly Important Goals* (New York, NY: Free Press, 2016).

⁸Mario Moreira, *The Agile Enterprise: Building and Running Agile Organizations* (New York, NY: Apress, 2017).

⁹Barry O'Reilly, Jez Humble, and Joanne Molesky, *Lean Enterprise: How High Performance Organizations Innovate at Scale* (Hoboken, NJ: O'Reilly, 2015).

For this type of open culture, the top-down disciplined approach attempted by a group of external consultants would have an immediate negative impact on employee morale and customer experience. The best approach, which was chosen by the company, was to elicit structure from within while sharing and evangelizing best practices. As simple as it sounds, this approach was immediately stalled by the need to identify tools and mechanisms for internal communication and experience sharing, consistent scaling practices at program and enterprise level, templates for product development, customer satisfaction analysis, common metrics, internal communication including social media, wikis and common repositories, and alignment on shared understanding of goals and measures of success.

There were multiple products envisioning and innovation workshops going on, but none of them resulted in a new product or service. Multiple departments started implementing an agile framework to build a solid delivery pipeline but failed to scale or align on timelines and dependences. Customer-facing groups started implementing product envisioning and feedback techniques. Proactive managers initiated innovation workshops. Everyone started their own customer outreach on top of traditionally strong customer satisfaction practices. This enthusiasm contributed to more chaos.

Confused employees requested training on new methods of customer feedback, which was not yet developed. Department leaders were stepping on each other toes and competing to develop innovative strategies in silos. With all the right intentions and correct approach, the company leadership delivered on the shared vision, enthusiasm, and support, and failed to deliver on orchestrating next steps: scaling approach, creating playbooks, templates, tools, techniques—all the aspects required to execute a successful enterprise transformation.

This is where the need for a single-source playbook, simple and pragmatic, became obvious. There are many excellent books on almost every aspect of modern organizational transformation—agile and lean culture and leadership, IT practices, product envisioning and design, with the latest interest in “business agility” as it relates to finance, marketing, people practices, and other adjacent areas. My experience is that many practitioners are inspired by these books and start implementing these practices without assessing the impact they have on others: agile teams develop code without marketing readiness, or the product evangelists creating product portfolio in collaboration with customers without being backed up by finance. Fortunately, the airline leaders in this example were quickly able to identify and implement a holistic transformation approach that resulted in multiple service wins and compressed timelines.

This book contains step-by-step guidance along with the stories from multiple companies I worked with, from health insurance to financial services, media, and education. I share compelling stories and lessons learned from their journeys and my hands-on experience. I share the timelines to help you decide on realistic and feasible expectations vs. demands of “go faster” from senior leaders, which is one of the primary reasons why enterprise transformation fails. I review other reasons of value and signs of success, which enable you in evaluating your own lean enterprise implementation.

When you complete reading this book, you will be well equipped to make your organizational lean adoption a success. You will be able to define the strategy, get buy-in from internal stakeholders, partner with your customer effectively, and reduce business risk via validated learning. The concept of entrepreneurial mindset in a corporate level won't seem an oxymoron to you anymore and the new way of thinking will become part of your daily work routine, no matter your role in the enterprise. This will lead to business success as well as career development—all on top of customer delight and collaborative mindset. *Win-win for everyone!*

■ **Anti-Pattern** I have been reading various publications equating a pragmatic corporate lean strategy to a lean startup adoption, basically claiming that enterprise is similar to a startup, just bigger, and that in order to succeed one merely has to scale the thinking and scale the same patterns learned from startups to corporates. I couldn't disagree more. Essentially, this is like saying that the thinking patterns of a 3-year-old toddler are the same as a 23-year-old person.

Enterprises, corporations, and, generally speaking, organizations with more than 500 employees are inherently different than startups. When growing, organizations transform, undergoing something like a chemical reaction. Thus a big organization is not a mix of the total number of employees, rather it is a compound. One can't separate the elements back and create multiple lean startups; it is destined to fail. Rather, one must approach the corporate lean strategy pragmatically from the perspective of a chemist, figuring out the ingredients that interact with the organizational compound required to create the necessary change in culture, behaviors, and patterns. I aim to provide these ingredients in this book.
