

THE INNOVATION APPROACH



**OVERCOMING
THE LIMITATIONS
OF
DESIGN THINKING
AND THE
LEAN STARTUP**

DAVID C. ROACH

The Innovation Approach

David Roach's *The Innovation Approach: Overcoming the Limitations of Design Thinking and the Lean Startup* addresses a critical challenge in product innovation: perfecting the front end of the innovation process. Roach introduces a robust approach that guides innovation towards creating robust product concepts that are desirable, feasible, and viable. His model presents a novel, well-constructed iterative process, each cycle comprising four core activities: secondary research, benchmarking, primary research, and ideation. Each cycle in his model is meticulously detailed, combining the strengths of Design Thinking and Lean Startup methodologies while skillfully avoiding their common pitfalls. Clear, insightful, and engaging, this book is not only an enjoyable read but also an indispensable resource for managers in product and service innovation. A must-read for those seeking to drive successful innovation in their organizations.

—**Robert G. Cooper, Professor Emeritus at McMaster University, Canada, and
ISBM Distinguished Research Fellow at Pennsylvania State University, USA**

The Innovation Approach: Overcoming the Limitations of Design Thinking and the Lean Startup

BY

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INVESTOR IN PEOPLE

This book is dedicated to “mon frère” Professor Dr. med Michael Klaus Schmidt, an innovator and passionate clinician whose generosity of spirit I will forever miss.

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About the Author



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Preface

You are a progressive group. You believe that innovation is crucial to your organization's long-term vision. You keep up to date with emerging trends both in the marketplace and the modes of organization. You tend not to be at the bleeding edge but consider yourself a fast follower. You're not seduced by fads but employ techniques that stand the test of time. The intuitive appeal of Design Thinking makes sense to you and seems to be a great fit for your organization. Its empathetic, team-based approach and collaborative work style are exactly what your organization espouses. However, after the initial excitement and perhaps some early wins, it doesn't seem to be delivering the benefits that you thought. Perhaps it's because your organization has lost its entrepreneurial drive, but after dabbling with methods like the Lean Startup, it seems to have only confounded the problem. You continue to search for answers...

If this reminds you of your journey...this book is for you...

THIS BOOK IS NOT A CRITIQUE OF EITHER DESIGN THINKING OR THE LEAN STARTUP, BUT A WAKE-UP CALL TO THE GENERALLY POOR IMPLEMENTATION OF THESE FRAMEWORKS

This book has been in various forms of development for close to four decades. Over my career, I have always been relatively successful at innovation, but my early career was characterized by ad hoc “hit and miss” approaches, based more on entrepreneurial intuition than a consistent methodology. What always fascinated me was whether there was a modest approach with broad enough application to improve the outcomes of the innovation process? Today, when I interact with executives or my graduate students, I liken the innovation process to America's pastime – baseball. Baseball is one of the few sports where a 70% failure rate makes a player a superstar. A player who can put the ball “in play” 30% of the time (a.k.a. a “0.300 hitter”) is rare in a game where *all players* have developed the “skills,” but few have mastered the *consistency* required to reach this pinnacle. Surely, innovation management must have a similar process ...

At the time, one of my former bosses challenged me by stating that although I may have shown some ability to create successful innovations, it likely wasn't repeatable and certainly could not be “systematized.” As with most things in life, I took this as a challenge and have spent the past decades researching, applying and modifying best practices. My journey has taken me to top institutions such

as Harvard, MIT, Babson, Kellogg, University of Chicago, to name a few ... to learn from the best of the best. After applying many of these “broad-brush” approaches, I eventually reached a point where a deeper dive into the academic field was necessary – receiving a PhD in the area of product management. Throughout this process I continued to apply this knowledge, resulting in several breakthrough innovations in aerospace, medical devices and consumer products. It also resulted in many failures, but my hit rate approached that of a 0.300 hitter. What became clear is that there are fundamental principles and building blocks that form the basis for successful innovation management approaches.

It also became clear that there is an unbreakable relationship between innovation and entrepreneurship. These two somewhat complementary constructs are conjoined and can either work synergistically or be at cross purposes. From an academic perspective, firms or individuals have what we refer to in strategic management studies as “capabilities.” These capabilities differ between innovation and entrepreneurship but have often been incorrectly lumped together. Innovation is the process of *creating value for a target audience*, while entrepreneurship is about *recognizing, crafting and exploiting* commercial (or social) opportunities. These are two disparate types of capabilities which when managed synergistically often lead to success, while when in conflict almost inevitably lead to failure. My research and the overwhelming anecdotal evidence suggest that individual actors often mistake their capabilities in either of these spheres leading to poor outcomes. The capability required to research, conceptualize and execute innovations differs radically from the capability to recognize (i.e., uncover) opportunities and craft them into something commercially or socially viable. Successful innovators surround themselves with entrepreneurial talent, while successful entrepreneurs surround themselves with innovation talent. But more about this in Chapter 1.

Although initially thrilled by the advent of novel methodologies such as Design Thinking and the Lean Startup, I quickly became disillusioned by their implementation. Although the lines between innovation and entrepreneurship have always been blurred, these methods quickly reached an unmanageable level of populism driven by a surge of internet-based promotion. Both methods have many merits. However, neither adequately addresses the innovation–entrepreneurship interface, specifically from a “capabilities” perspective. Moreover, in practice, they suffer from what I refer to as the “boardgame” principle, where individuals follow a planned route somewhat analogous to the boardgame *Snakes and Ladders*. In *Snakes and Ladders*, players move their token on a board in a quasi-linear fashion, where ladders are used to fast forward through the process, while snakes result in sliding back. Conceptually, Design Thinking advocates for a nonlinear approach where assumptions should be challenged or revisited throughout the process. On the other hand, the Lean Startup promotes “pivots” when new information comes to light. In practice, however, individual actors once locked into a path rarely revisit key facts and assumptions, while pivoting is often the outcome of poor management of the innovation process, once the team has effectively reached a dead end. Compounding this situation are the many “how to” books and websites written on these subjects. Each in their own way provides lengthy checklists, questions to be answered and case examples (note: mostly from

behemoths such as Apple, Google, Tesla, etc.) which are mostly unsuitable for typical organizations. In practice, individuals and/or teams become overwhelmed by these choice options and retract to simplified heuristics, in effect cherry-picking areas of comfort. In keeping with my analogy, they fast forward through steps only to inevitably slide back. This is neither *effective* nor *efficient*. For instance, a favorite comfort area is the brainstorming process, which is creative, fun and highly visible to management and/or investors. This approach mostly ignores decades of well-established best practices and is *inconsistent* with the successful management of the innovation process.

This book chronicles my journey through the merits and obstacles of innovation management. It is not about criticizing or altering best practices developed and tested over time. As a matter of fact, this book is complimentary to these methods and practices. For instance, there is no benefit in reiterating the approach and/or benefits of brainstorming or customer discovery. These steps are well documented and generally well understood. Instead, I hope to build upon these many solid foundations from both a practitioner and academic perspective. As a result, I will endeavor where possible to link recent tools and techniques back to their origins to convey an understanding of the lineage of these concepts. Once core principles are fully understood, it is much easier for individuals to apply them in the correct manner, context and measure. I will also go beyond the narrow confines of core concepts into advanced tools and techniques, as well as system-level capabilities that support a robust innovation management system.

This book is divided into four broad categories. The first section revisits *systems of innovation* and how they relate to new methodologies such as Design Thinking and the Lean Startup. This knowledge is used to propose a *complimentary* model of innovation management. Building upon this model, *core steps and capabilities* are discussed under the presumption that successful management of these steps increases the overall *effectiveness* of the process. When steps are more effective, they also become more *efficient* in the long run. Core steps include background research (secondary and benchmarking) followed by primary research. Once these steps are completed, ideation activities can then be undertaken to generate meaningful concepts. I will argue that these core activities are sequential in nature and build upon each other. They represent the core of an *innovation cycle*, which provides the basis for the next iterative cycle, where the innovation problem is redefined and enriched. This is the transition to the next phase where *advanced tools and techniques* are engaged. These techniques or *themes* involve the application of adoption theory, lead user research and design for sustainability. Each of these themes involves a repetition of the *innovation cycle*, albeit with a refined focus. This allows fledgling concepts to be amplified, improved and stress-tested. The book concludes with a discussion of *system-level capabilities* which include team selection and governance, project management essentials and business model innovation. Together these form the innovation approach.

The book is structured to blend theory with practical application of techniques. To accomplish this CASE STUDIES and IN PRACTICE sections are highlighted throughout. Case studies emphasize examples of innovation management at work. The in practice sections feature the application of techniques

described within the chapters. Throughout, key concepts are highlighted to reinforce *effective* steps within the innovation approach.

For managers, my hope is that “the approach” can breathe new life into their innovation practices by allowing them to increase the effectiveness of their innovation activities. For founders, practitioners and consultants, the approach may lead them to fine-tuning their processes, resulting in better outcomes for their organizations or clients. For my academic colleagues, my hope is that the opinions throughout this manuscript may become the kernel for new avenues of research inquiry that are so badly needed at the innovation–entrepreneurship interface.

In closing, innovation and entrepreneurship have always had a strong and synergistic relationship. Innovations that are not adopted commercially or socially remain inventions. Every entrepreneurial endeavor requires some form of innovation. As a result, many tools, techniques, and systems have been developed to reconcile these somewhat disparate approaches. Design Thinking has emerged as the de facto standard for innovation management, while the Lean Startup methodology has become the prevailing approach for entrepreneurial pursuits. While both systems have significant strengths, they suffer in practice from philosophical gaps. In practice, Design Thinking has become subservient to the brainstorming process, while the Lean Startup suffers from the notion that “pivoting” is the solution to all that ails the business model. Based on almost four decades of practice and research, this book begins with the philosophy that *a poor concept can rarely be converted into a success, while the most robust concepts often suffer from an unachievable business model*. Rather than a critique of these popular methodologies, this book serves as a *compliment to these approaches* focusing on the front end of innovation where most of the critical innovation and entrepreneurial decisions take place.

My hope is that this book will be somewhat controversial, but embraced by most ...

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