Get Better at Flatter

Markus Reitzig Get Better at Flatter

A Guide to Shaping and Leading Organizations with Less Hierarchy



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Preface and Acknowledgments

For a scientist, writing a book for managers in today's world has become an affair of the heart, for many reasons. Let me name just two. First, we have—in modern academe—come to weigh scholarly achievements in citations and journal publications, so being the author of a book for practitioners no longer tilts the career balance. Second, even books dedicated to practitioners—in our modern daily life—often lose against vlogs and online snippets in competing for executives' attention.

So why this book? My motivation was to write about a topic I feel passionate about to this day. Having studied novel organizational forms for the better part of my professional career, having taught numerous students about how to manage without hierarchy, and having witnessed just as many executives struggle with the challenges of doing so, I hoped simply to provide them a science-based yet actionable guide to designing flat structures. A guide that would be easier to understand, and better to follow, than other contemporaneous approaches.

Whether I've succeeded or not, others will have to tell.

What I can say is that I thoroughly enjoyed the process. It gave me a chance to read up on the works of my colleagues, friends, and co-authors of many years, and to reflect on the insights that my students and I have created over almost two decades. I am indebted to so many of them for years of joint work, and I would at least like to thank my most frequent collaborators—Professors Oliver Alexy, Helge Klapper, Boris Maciejovsky, Phanish Puranam, and Olav Sorenson—for their having contributed to my understanding of how organizations work, and without whom this book would not exist.

Several of them, as well as others, have also supported me during the actual process of writing this piece. Helge Klapper, Boris Maciejovsky, Costas

Markides, Mariana Sailer, and Stefan Thau provided feedback on early versions of selected chapters.

So did a range of executives to whom I am profoundly grateful for assessing the book's viability from a practitioner perspective—notably Robin Colgan (Jaguary Landrover), Christoph Fischer (BayernLB), Steve Morgan (Pegasystems), and Carsten Strube (Mercer Management Consultants). This book is intended to make your lives easier, and I'm glad that you helped me work toward this goal.

Parts of the book could not have been completed without the generous support of senior executives who went on record and, originally for this book, shared with me their experiences of delayering hierarchical organizations or growing startups in a flat manner. Special thanks go to Richard Borek (Borek), Georg Rätker (T-Systems), and Andreas Schuster (wirDesign). I owe Florian Bernschneider (AGV Braunschweig) for establishing contacts with the aforementioned companies.

While I am deeply grateful to all of the above, three friends stand out in terms of providing substantial information and help in the context of this book project. Not only did they meticulously read every chapter in its original version; they also shared their contacts and helped promote the ideas portrayed herein wherever there was an opportunity. They are Michael Lander (Siemens), Sridhar Raghavachari (formerly ITC), and my co-author of longstanding, Professor Phanish Puranam.

Irrespective of the support I received from the aforementioned persons, I couldn't have finished this volume without the tremendous help I received from all my internal and external team members in this production process over the past two years.

Lorena Schivo and Sandra Perger provided excellent assistance in compiling references and publicly available documentation. Kristen Ebert-Wagner did an outstanding job in getting the manuscript ready for publication. My heartfelt thanks to all of you! I would equally like to thank my editor, Liz Barlow (Palgrave Macmillan), for her serious interest in and commitment to this book from the very beginning, and for excellent cooperation along the entire way.

Two of my graduate students provided particularly comprehensive and important support over the course of the last two years. My special thanks go to Tomas Lego and Robert Janjic for endless hours of sparring on the fundamental ideas behind the chapters in this book, for digging up case material, challenging my thinking, discussing both the scientific literature and my related inference, and correcting my initial chapter drafts. More than once they spotted glitches in my original writings. I owe both of them. Finally, I thank my student assistant, Lenz Söder. He has been my closest companion along the way in writing this book, served as my (almost) daily discussion partner for over a year, was the first to review each chapter draft, and became my key aide in compiling materials and drafting illustrations for this book. Without his support, this book would not have come together in its current form in time.

Writing a classic is reserved to the fewest of us, and I do not hold such ambitions. In fact, it may not even be desirable. For, as Mark Twain allegedly once put it:

"Classic"—a book which people praise and don't read.

Rather, I have to admit that—inasmuch as I enjoyed the process of writing—I would be lying if I said that I wouldn't want to see this book diffuse among colleagues and practitioners and make their lives a little easier. And to witness that social science can have an impact on corporate practice.

Those whom I hold dear saw less of me while I was working on this book. It is to them that I devote this book in gratitude for their patience and understanding—first and foremost among them my daughter, Lola, who writes funnier stories than her dad.

Vienna, Austria

Markus Reitzig

Praise for Get Better at Flatter

"Professor Reitzig has produced a rarity of a book: a managerial book full of practical insights that is based on rigorous academic theory and evidence-based research. This makes Get Better at Flatter the go-to book for any senior executive interested in learning when to reduce the hierarchy of their firm and how to do so successfully. This superb book is full of fresh ideas and practical advice, written in a clear style and enriched with real company examples. You should not just buy this book, you should read it!"

> -Costas Markides, Robert P. Bauman Chair of Strategic Leadership, Professor of Strategy and Entrepreneurship, London Business School

"When it comes to organization design today, "flat" (and each of its near synonyms) is a cool idea. It may also be a stupid idea for your organization. This is the first book I have read on this topic that analyses rather than proselytizes. It shows how to think through the "why's" and "how's" of getting flatter in a systematic manner. A must read for anyone who would rather be a thoughtful manager than be among the herd of the "thought led"."

-Phanish Puranam, Roland Berger Chaired Professor of Strategy and Organisation Design, Professor of Strategy, INSEAD

"Organization charts have fewer and fewer levels. But surprisingly little academic attention has been given to this important trend. Reitzig provides a much-needed theoretical framework for understanding when and why firms can benefit from flattening their structures. He also offers detailed practical advice on how to do it. Importantly, both his theoretical framework and his practical guidance account for the fact that firms vary in how flat they have historically been and in what they hope to achieve through a decentralized design. Anyone contemplating a reorganization should read it."

> -Olav Sorenson, Joseph Jacobs Chair in Entrepreneurial Studies, Professor of Strategy, UCLA Anderson

"This book strikes an unusually well-done balance between hands-on ideas and a carefully researched evidence base and will be equally useful for executives and academics interested in organizational design and hierarchy."

--Stefan Thau, The Cora Chaired Professor of Leadership and Learning, Professor of Organisational Behaviour, INSEAD

"Prof. Reitzig's book is a welcome and timely contribution to the discussion about flat organizations. To date, the discussion has often been comparing two polar extremes—the boss-less organization versus a traditional hierarchy. Reitzig convincingly makes the case that the more useful discussion is the continuum between those polar extremes. The book provides actionable insights to managers who struggle with how much, what kind, and when to grant freedom to their employees."

—Linus Dahlander, *Lufthansa Group Chair in Innovation,* Professor of Strategy, ESMT Berlin

"Flat, decentralized organizations have come a long way since the turn of the millennium, and are now on the brink of becoming a part of mainstream managerial practice. Reitzig's timely and insightful book explains why this is the case, and provides managers with crucial, evidence-based insights as to what they can achieve by "going flatter," when and with what approach, and how to make it happen. If you want your company to be faster and more innovative, and unleash the potential of employees, you should read this book."

-Oliver Alexy, Professor of Strategic Entrepreneurship, TUM School of Management

"On a topic where fads and fictions have prevailed, this 'user manual' for leading flat organizations—grounded in Reitzig's deep expertise and decades of research—makes the complex simple, the hyped-up real, and the unforeseen predictable. A must read for anyone frustrated by hierarchy and red tape."

> -Ethan Bernstein, Edward W. Conard Associate Professor of Business Administration, Harvard Business School

"With this book, Prof. Markus Reitzig manages to free the flowery debate about New Work and New Leadership from its word cloud and makes it clear what one should really focus on when it comes to the practical application in a company. This practicality is not based on anecdotes or a subjective gut instinct, but builds on a solid empirical foundation. This makes it not only a book on management which is worth a read, but provides real added value for every executive."

> -Florian Bernschneider, *Chief Executive of the Employers' Association (AGV) Braunschweig*

"An eminently readable book that addresses one of the big issues faced by managers; making organisations 'match-fit' for a new generation of talent in a post-covid world. Professor Reitzig blends theory, primary research and his own industry experience to inform and provide clear, actionable insight."

-Robin Colgan, Managing Director, Asia Pacific Importers at Jaguar Land Rover

"As much as I enjoy chatting about my current favorite topic with like-minded or curious people after the transformation of wirDesign, the wonderfully scientific perspective of Prof. Markus Reitzig's well-founded book surprised me and enriched my point of view. Anyone who wants to have a say in future discussions, instead of idly chatting, should invest their time well and read this book."

-Andreas Schuster, Co-founder and Board Member of wirDesign

"Get Better at Flatter by Prof Reitzig is an expertly-written book providing practical, yet deeply-researched guidance regarding the do's and don'ts of flat organizations, beyond the usual buzzword bingo of agile, scrum and kanban."

-Dr. Christoph Fischer, Division Head, BayernLB

"Prof. Markus Reitzig does a great job of providing orientation on a highly topical issue.

Flat hierarchies and flexible organizational models are of great interest as part of a "new way of working". Established companies in the industry deal with this topic while trying to optimize organizational structures that have evolved over time.

Prof. Reitzig manages to describe both advantages and limits of fewer levels of hierarchy in a clear and succinct fashion. His approaches combined with practical examples provide orientation in this complex and emotional environment. Making use of a straightforward chapter structure, he offers an efficient reference tool, thanks to the clear summary at the end of each chapter.

As I can confirm from my own daily practice, the book has real added value for managers and helps to recognize mistakes or, ideally, to already avoid them at the outset."

-Michael Lander, Co-Chapter Lead of Global Business Consulting & Digitalization, Siemens AG

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Introduction

The idea of working in "flat structures"—organizational hierarchies with few or potentially no middle layers of management—exudes an air of freshness and energy. It has diffused among millennials as much as among seasoned employees who have spent the better part of their professional lives in traditionally run companies. And there's something to be said for such flat structures: they have the potential to do better than established hierarchical organizations in certain instances. This potential has left many managers wondering whether and how to level their corporate structures in order to both make their employees happy and increase performance. At the same time, this potential is easily overestimated, and moving to a flatter structure is erroneously perceived to guarantee a revitalized business. Many contemporary writings in management contribute to this situation.

To give flat structures the platform they deserve, but to help leaders approach the situation realistically, this book complements extant writings by taking a slightly different approach to the topic. Unlike many writings on the subject, this book does not begin from the premise that organizations with little or no hierarchy will always work and outcompete their traditional counterparts. Rather, I argue that flat structures *can* be very powerful and potentially superior to hierarchical firms under certain conditions. And just because they can, most managers will begin to experiment with flat structures at some point in their career, or feel pressured to do so. When you reach this point, it will be important for you to know how to *make flatter* the *better* structure for your purpose.

This book will teach you how to successfully move from a hierarchical organization to a flat, teams-based form of organizing—or to maintain the latter in your new venture while scaling, if this is where you're coming from. Whether your goal is for your corporation to become—or remain—creative, fast, or attractive to current and future talent by removing—or not even implementing—layers of management, the framework developed in this book will help you avoid some of the most frequent pitfalls in the process. And pitfalls there are plenty. Most fall into just three categories, however.

- *Mismatch between corporate goal and flat structure*. Delayering a large corporation can take very different forms; so can keeping a startup flat. Only if your goal—say, to be fast to market—can be attained by the specific structure you put in place will the move to a flatter structure succeed.
- *Mismatch between the flat structure and how you treat your staff within it.* Flat structures shift responsibility and more accountability from managers to team members. In turn, this means that you must not treat your staff the way you do in traditional hierarchical companies; you must appreciate them in their specific roles.
- *Mismatch between the flat structure and the staff you took or take on board.* There's only so much you can do as an organizational designer to make employees behave in a way that suits the company. Much of the success will hinge on their inner disposition—so picking the right folks for the job in the beginning is key.

Why Read this Book?

Rarely if ever did organizational bureaucracies have a reputation as bad as today's.

Over the past two decades, the use of formal command hierarchies within companies has been blamed for hampering their ability to react faster to unforeseen developments, to foster the creativity of their staff, to crank out innovative products speedily, and, in turn, attract young talent to the workforce and keep it.

With traditional management models being up against the ropes, "novel" forms of organizing appeared to have an easy opponent—at least, in the popular management literature. Flattening the decision-making structure by removing (sometimes all middle) layers of authority from a hierarchy has been increasingly hailed as a silver bullet for founding successful startups, transforming giant corporations into agile players, and enabling the current and future workforce to be happy and productive at the same time.

Related management concepts or tools abound—such as agility, holacracy, and scrum.

So why another book?

The short answer: because, as is so often the case, upon closer inspection the truth is more complex than the latest management fashion may suggest. First, hierarchies have been around for a reason, and they will remain important in certain domains. Second, doing without them where possible requires more than a one-size-fits-all template for managers to execute.

To appreciate my first point, let's begin from the following two observations.

One: in 2017, in the United States, around 128 million people were in the labor force, over 67 percent of them working for a company having 100 or more employees on its payroll, and more than half (~53 percent) working for one having 500 or more. Those 100-plus-employee companies account for over 75 percent of total revenues in the US economy, the 500-plus-employee ones for about 64 percent. So big companies matter.¹

Two: on average, a CEO in the US does not supervise more than six managers, and a mid-level manager in Europe just under three, according to scientific studies. The lowest-level managers within companies, on average, supervise teams of around 15 in the median. For an 800-person company, this easily means four or more layers of management. And that number can rise drastically when company size increases. In other words, large firms use hierarchies of significant depth.²

If we put these two observations together, we have to conclude that most economic value is generated in deeply hierarchical organizations.

But why does the most significant part of the economy seem to rely on hierarchies if they are as bad as we are being told?

I can think of three explanations, all of which may have some validity.

First, maybe traditional forms of organizing, despite their alleged and real downsides, are not always that bad. Maybe they are superior at delivering performance under certain conditions. As I will argue in Chap. 8, such conditions exist, partly explaining the continued existence of bureaucracies.

Second, maybe where flat structures could do well, managers simply have yet to try them out and will do so only in the future. There are good reasons to believe that we'll increasingly see more decentralized organizations form and persist in the future (see also Chap. 8 for further thoughts on this). It's unlikely this will hold for all organizations, though.

Third, maybe managers of (currently large) companies have already tried to move to flatter structures but simply did a less-than-perfect job and returned to their traditional management models in frustration—perhaps because they underestimated the challenges of establishing a flat startup culture, or because they struggled with transforming their traditional companies. The list of examples is long (see Chap. 1). This book seeks to help executives prepare for the second challenge and to deal with the third—and to avoid mistakes when moving to flatter structures. Having managers appreciate where traditional structures should remain because they are superior will save decision-makers predictable disappointment.

What the Book Does for You Exactly

This volume encourages you to view organizations as systems that can be engineered to make different individuals collaborate toward a common goal.

I will demonstrate that just as cars can be designed to run on electricity rather than fossil fuels, organizations can be designed to require fewer (if any) layers of management when dividing labor and reintegrating work.

Just as electric vehicles cannot resolve every transportation problem—being $\rm CO_2$ neutral while providing sufficient cruising range—in every situation—urban traffic versus countryside—flat organizations will have different options and limits in meeting different goals. To give an example: a flat organization may be better both at providing fast solutions to its clients and showing a high degree of corporate-wide quality standardization when operating in a local as opposed to a global context.

For managers to eventually create the flat organization that suits their purposes, they must therefore determine what exactly it is they want to achieve when delegating more decision-making to their subordinates.

To be able to define meaningful and realistic goals at all, however, they must first do away with unrealistic expectations, nurtured and fueled by ideological rather than scientific accounts of what organizational design can and should do. To the contrary, managers should first understand the operations of their engine: why flat(ter) organizations work at all, and under which conditions they do (well) in which regard. By understanding what is possible, they'll be able to design what meets their desires best—rather than beginning from wishful thinking just to hit the hard wall of reality eventually.

Such an understanding, so I propose, requires executives to develop a more nuanced understanding than has been provided in the popular management literature of what moving to "flat" structures really means.

First, creating flatter structures can range from removing interim layers of authority within a hierarchy to quasi-decentralizing decision rights. There's a huge difference between eliminating a few mid-level managerial positions in an inflated hierarchy and giving responsibility to staff on the shop floor to structure their workday, however. The former problem seems simple in comparison to the latter.

Second, high delegation to achieve quasi-decentralization is not a monodimensional problem. It can occur, to different degrees, along a series of organizational design dimensions. For example, while some companies let employees choose which tasks to work on, others would rather allow them to choose who to form teams with; yet other firms will have their staff determine their own salaries, decide how to communicate with one another, or resolve disputes among peers. All in all, this leaves managers with the need to pick the right design option from a plethora of potential structures. Only when the potential structure fulfills what management hopes to achieve, and when it is suited to their corporate staff, will the high-delegation initiative eventually succeed.

The challenge for executives to think about creating functional flat structures is thus not trivial. Despite abundant practical advice, extant management tools in the field often either lack scientific grounding or focus on isolated difficulties of quasi-decentralization.

With this book I seek to fill this void. While providing actionable advice for managers eventually, the writings presented here draw on the scientific knowledge gained in the fields of organizational design and organizational behavior of the past 60 years. A fair share among these are studies conducted by my co-authors, graduate students, and myself over the past decade. Structuring what we have come to know from about a hundred studies through a scientific and practice-proven lens on nonhierarchical forms organizing developed jointly with Oliver Alexy and Phanish Puranam and enriching these insights with illustrative case material from more than a dozen selected companies, I provide readers the understanding and skills to become truly "better at flatter" management—from hiring to execution. Here, they will benefit from the feedback I received on the book's core ideas over the course of many executive seminars, master classes, and public presentations including two TEDx talks in 2016 and 2020—on the subject.

How to Read This Book

There are two ways to read this book, depending on how much time you have to spare.

Ideally, you'll peruse the different chapters in order. Chapters 1, 2, 3, 4, 5, 6, 7, and 8 will take you through the different steps of understanding the functionality of flat designs, while Chap. 9 will synthesize them in a managerial framework that allows you to tackle the practical cases in Chaps. 10 and

11 to test your own understanding. I recommend this way of going through the book if you want to ensure that you end up having a profound understanding of the challenges that designing flat organizational structures brings about.

Should you have less time on your hands, you may want to read Chaps. 1 and 2 and then jump to Chap. 9. In this case, you may find yourself needing to selectively revisit earlier parts of the book that I refer back to, depending on where questions arise when applying the framework.

Irrespective of how you read the book, it's my hope that you'll walk away not only confident but also inspired to (re)structure your company.

Notes

- See U.S. Census Bureau, "2017 SUSB Annual Data Tables by Establishment Industry," and OECD, "SDBS Structural Business Statistics (ISIC Rev. 4)." For OECD countries, the distribution is skewed slightly less toward large companies, but shows a similar picture overall.
- 2. For more details, see Rajan and Wulf, "The Flattening Firm," and Smeets and Warzynski, "Too Many Theories, Too Few Facts?" Admittedly, these studies from the late 2000s suggest that companies had become flatter during the preceding decades. If that trend had prevailed thereafter, depths of hierarchies might have decreased even further since 2008. However, barring radical changes, the overall inference presented here would remain the same.

Bibliography

- OECD. "SDBS Structural Business Statistics (ISIC Rev. 4)." <u>https://stats.oecd.</u> org/Index.aspx?DataSetCode=SSIS_BSC_ISIC4# (accessed December 2020).
- Rajan, R. G., and J. Wulf. "The Flattening Firm: Evidence from Panel Data on the Changing Nature of Corporate Hierarchies." *The Review of Economics* and Statistics 88, no. 4 (2006): 759–73.
- Smeets, V., and F. Warzynski. "Too Many Theories, Too Few Facts? What the Data Tell Us about the Link between Span of Control, Compensation and Career Dynamics." *Labour Economics* 15, no. 4 (2008): 687–703.
- U.S. Census Bureau. "2017 SUSB Annual Data Tables by Establishment Industry." <u>https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html</u> (accessed December 2020).