VALUE CREATION PRINCIPLES

THE PRAGMATIC THEORY OF THE FIRM BEGINS WITH PURPOSE AND ENDS WITH **SUSTAINABLE CAPITALISM**

BARTLEY J. MADDEN

WILEY

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“In *Value Creation Principles*, Madden introduces the pragmatic theory of the firm that positions the firm as a system fueled by human capital, innovation, and, at a deeper level, imagination. He challenges us to understand how we know what we think we know in order to better discover faulty assumptions that often are camouflaged by language. His knowledge building loop offers guideposts to design experiments and organize feedback to facilitate early adaptation to a changed environment and to avoid being mired in ways of thinking rooted in ‘knowledge’ of what worked well in the past—a context far different from the context of today. His book explains a way of being that enables those who work for, or invest in, business firms to see beyond accounting silos and short-term quarterly earnings and to focus on capabilities instrumental for creating long-term future and sustainable value for the firm's stakeholders. I can't recommend this astounding book enough especially given its deep and timely insights for our world today.”

—John Seely Brown, former Chief Scientist for Xerox Corp and Director of its Palo Alto Research Center (PARC); co-author with Ann Pendleton-Jullian of *Design Unbound: Designing for Emergence in a White Water World*

“In contrast to existing abstract theories of the firm, Madden's pragmatic theory of the firm connects management's decisions in a practical way to a firm's life cycle and market valuation. The book promotes a firm's knowledge building proficiency, relative to competitors, as the fundamental driver of a firm's long-term performance, which leads to insights about organizational capabilities, intangible assets, and excess shareholder returns. *Value Creation Principles* is ideally suited to facilitate progress in the New Economy by opening up the process by which firms build knowledge and create value, which is a needed step in revising how neoclassical economics treats the firm.”

—Tyler Cowen, Professor of Economics, George Mason University; co-author of the popular economics blog *Marginal Revolution*

“Bartley Madden rightfully points out that both textbook and more advanced economic theories of the firm fail to address the concerns of top management and boards of directors. He offers a tantalizing pragmatic alternative that directly connects to quantitative changes in the firm's market value. His framework gives recognition to the importance of intangible assets, and his pragmatic approach is quite complementary to the Dynamic Capabilities framework that strategic managers implicitly and sometimes explicitly employ.”

—David J. Teece, Thomas W. Tusher Professor in Global Business, Faculty Director, Tusher Center for the Management of Intellectual Capital, Haas School of Business, University of California, Berkeley

“Drawing upon a long history of experience and research, Madden integrates management theory and firm valuation in *Value Creation Principles*. He hypothesizes the foundational importance of managerial processes to sustain knowledge building proficiency and demonstrates its relevance through case studies of important firms. Absent a culture of purpose, respect, experimentation, and learning, innovative processes degrade and hinder firm competitiveness. He convincingly deviates from traditional accounting standards and bedazzling quantitative methods in developing the pragmatic theory of the firm that is well suited to the New Economy's reliance on intangible assets and human capital. Underlying the entire exposition is Madden's clear understanding of market-oriented choice and the limitations of rigid hierarchies and bureaucracies, particularly in the complex systems that we call ‘firms.’”

—Brian Singer, CFA, Partner, William Blair, Dynamic Allocation Strategies and former chairman of the CFA Institute

"In *Value Creation Principles,* Madden applies a holistic, systematic view of the firm to connect finance to the broader issues of managing firms through the creation of intangible assets. He provides a life-cycle lens that reveals the economic logic that drives levels and changes in stock prices over the long term. Management priorities need to be attuned to a firm's life-cycle position. He explains excess shareholder returns at a much deeper level compared to the popular factor studies in finance, while offering a blueprint for future research. The key to excess returns is shown to be intangible assets, and especially unique brands, that favorably contribute to a firm's long-term, competitive fade of profitability. The book should be read by anyone concerned with expanding the contribution of finance to business."

—Bobby J. Calder, Kelstadt Emeritus Professor of Marketing, Kellogg School of Management, Northwestern University

“Bart Madden has written an important book rooted in systems thinking. Understanding a systems approach to value creation by business firms is at the heart of his Pragmatic Theory of the Firm—a theory that is focused on the practical tasks of knowledge building and value creation. An important insight from this book is the ongoing and dynamic connection between a firm's knowledge building proficiency, long-term competitive fade of a firm's profitability, excess shareholder returns, and the concept of *firm risk* that differs from CAPM's *investor risk*. Firm risk, in Madden's words, is about obstacles that interfere with achieving the firm's purpose, which includes broad stakeholder advancement. *Value Creation Principles* provides insightful guideposts for managements, boards, and investors, as well as providing new thinking on academic research regarding the purpose of the firm.”

—David R. Koenig, author of *Governance Reimagined: Organizational Design, Risk and Value Creation* and *The Board Member's Guide to Risk*

“*Value Creation Principles* takes a holistic approach to how firms create value and maintain a competitive advantage. Knowledge building, systems thinking, and a strong sense of purpose hold the key. Bartley Madden's wide-ranging command of the evolution of the theory of the firm leads to an inevitable conclusion: knowledge building proficiency rooted in sustainable capitalism leads to progress for the firm and for the economy.”

—Michele Wucker, bestselling author of *The Grey Rhino: How to Recognize and Act on the Obvious Dangers We Ignore*

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The Pragmatic Theory of the Firm Begins with Purpose and Ends with Sustainable Capitalism

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In memory of my business partners who shared an exciting intellectual journey with me:

Charles G. Callard, Robert E. Hendricks, and Rawley Thomas.

PREFACE AND OVERVIEW

I strongly believe that a firm's long-term performance is a direct result of its knowledge-building proficiency. That belief is the result of my work in two research areas that normally are not connected—finance and knowledge building. First, by way of background, my career in finance began with the startup of the boutique research firm Callard Madden & Associates in 1969. Our primary mission was to understand levels and changes in stock prices worldwide and provide practical insights to enable portfolio managers to make better investment decisions. We devoted considerable effort analyzing management decision-making in the context of a firm's long-term financial performance quantified as life-cycle track records. Over many years I have been fortunate to work with talented colleagues at Callard Madden and later at HOLT Value Associates. Our research addressed a never-ending stream of problems in connecting a firm's accounting-based performance to its market valuation.

While this finance work was progressing, I got hooked on a second research area dealing with how we know what we think we know, which remains my ongoing intellectual passion.[1] The more I learned about the knowledge-building process, the clearer it became that knowledge building and value creation are opposite sides of the same coin. The more I analyzed management tasks such as strategy, innovation, employee engagement, development of new capabilities, etc., the more I realized that the root cause of a firm's long-term performance and returns to its shareholders is the firm's knowledge-building proficiency relative to competitors. This book makes what I believe is a strong case that a new holistic theory of the firm, built upon this foundational importance of a firm's knowledge-building proficiency, will improve thinking about the role of firms in society. Moreover, this new theory of the firm is labeled “pragmatic” because it facilitates systems thinking to analyze practical problems thereby leading to improved decision-making for managements, boards, and investors.

Theories of the firm tend to be narrow in scope and ignore how firm performance connects to market valuation. A notable advantage of the pragmatic theory is its explanation of what drives a firm's long-term financial performance and its returns to shareholders. The more one understands long-term stock prices, the better one appreciates the mutual interests of shareholders and other stakeholders.

As to understanding levels and changes in market valuations, my early research at Callard Madden was instrumental in developing the CFROI (cash flow return on investment) valuation model and related global database.[2] The CFROI research program is rooted in economically sound principles applied to the construction of long-term, life-cycle track records of a firm's financial performance; the forecasting of a firm's long-term net cash receipts; the calculation of warranted market valuations; and the decoding of investor expectations implied in stock prices. This unique research program was further advanced by HOLT Value Associates, which was acquired by Credit Suisse in 2002. A highly skilled team at Credit Suisse HOLT continues to advance the CFROI valuation framework as part of the Credit Suisse HOLT global database, which is used worldwide by many large money management organizations.

The seven chapters in the book can be distilled into the following fourteen key ideas:

1. **Purpose of the firm**—The pragmatic theory includes a statement of the firm's four-part purpose, as detailed in Chapter 1, which answers the questions: Why does a firm deserve the commitment and support of its stakeholders, and what unchanging principles will guide management's actions? Maximizing shareholder value is best viewed as the result of a firm successfully achieving its purpose.
2. **History of the theory of the firm**—The pragmatic theory is more comprehensive than other theories of the firm and treats the firm as a holistic system. As discussed in Chapter 1, this leads to insights that are otherwise unobtainable. The pragmatic theory integrates the firm as the critical unit of economic growth, thereby expanding upon the key ideas of Paul Romer, Robert Gordon, Joel Mokyr, and Edmund Phelps, as reviewed in Chapter 1.
3. **Knowledge building**—A firm's knowledge-building proficiency is the primary determinant of its long-term performance. Chapter 2 explains the knowledge-building process, including the subtle yet important impact of language.
4. **Performance improvement**—Chapter 3 uses knowledge building as a framework to explain the similarities and differences among three important approaches to improving the performance of firms: (1) Lean Thinking pioneered by Toyota; (2) the Theory of Constraints developed by Eli Goldratt; and (3) the recent work of Werner Erhard and Michael Jensen on an ontological/phenomenological model. By focusing on the knowledge-building components—purposes, worldview, perceptions, actions and consequences, and feedback—any proposed performance-improvement program can be analyzed for its likely impact.

5. **Life-cycle framework**—Chapter 4 illustrates how the four stages of the life-cycle framework (high innovation, competitive fade, mature, and failing business model), which are typical of the long-term histories of firms, fit into the pragmatic theory. Instead of beginning with a model of risk and return and elegant mathematics tied to equilibrium, the life-cycle framework focuses on an individual firm delivering economic returns and reinvestment rates over its life cycle, thereby generating net cash receipts that drive market valuation.
6. **Excess shareholder returns**—Excess shareholder returns (positive/negative) result from life-cycle performance that deviates (better/worse) from initial expectations. The life-cycle valuation model helps to generate insights about a firm's historical performance and to improve forecasts of future financial performance, particularly when such forecasts are benchmarked against the firm's and its competitors' track records. In addition, the model helps gauge the implied expectations of investors embedded in a stock price at a specific time.
7. **Alternative view of risk**—The Capital Asset Pricing Model (CAPM) and related models define *investor risk* for an equilibrium setting in the context of the investor's portfolio. Research to advance these models is based on empirically tested factors (as proxies for risk) that seek to explain excess shareholder returns. CAPM equates higher average returns with higher risk. Managements can easily embrace the CAPM view of risk because it facilitates the calculation of a cost of capital. An alternative, although complementary, view of risk is presented in order to facilitate sharper thinking and improve decision making. *Firm risk* can differ from investor risk. Firm risk is about obstacles

management faces that interfere with achieving the firm's purpose. Firm risk increases (decreases) in lockstep with changes that degrade (improve) the likelihood of achieving the firm's purpose. An increase in firm risk, all else equal, means a greater likelihood for a firm to generate lower future financial performance. In the early stage of an increase in firm risk, management may choose to disregard the warning signs, but nevertheless those inside the firm have superior information compared to investors relying on public information. The key insight here is that there can be a substantial time lag between a significant change in firm risk and investor perception of this change. As such, an increase in firm risk will eventually be understood by investors and, all else equal, this adjustment process will cause a decline in the firm's market valuation. How does this adjustment process connect to models of investor risk like CAPM? The stock price declines in order to provide a high enough expected investor return to adequately compensate investors for the increased likelihood of future shortfalls in the firm's financial performance.

8. **Systems view**—A strong advantage of the pragmatic theory is its systems view of the firm which aids in dealing with complex problems like intangibles (e.g., brands), which dominate value creation and economic growth in the New Economy. The intangibles measurement problem impacts accounting-based performance measures, resource allocation, and market valuation. My blueprint, described in Chapter 5, for handling intangibles indicates that capitalization and amortization are warranted when the duration of expected benefits (economic lives) can be reasonably approximated. This improves the accuracy of economic returns and reinvestment rates, yielding more

insightful track records. If economic lives are too speculative to estimate, the benefits from intangibles can be incorporated via more favorable long-term forecasts of competitive fade rates for economic returns and reinvestment rates.

9. **New research methodology**—A new way to conceptualize research about shareholder returns is presented in Chapter 5 with three levels of cause-and-effect logic: (1) correlation studies using financial variables as potential factors to better model risk and return; (2) targeted causes of excess returns such as intangibles, culture, and ESG (environmental, social, and governance) initiatives; and (3) utilization of a firm's knowledge-building proficiency as the preponderant cause of long-term value creation and ultimately shareholder returns.
10. **Crossover problem**—The knowledge-building process that is fundamental to the pragmatic theory sheds light on how accounting-based performance metrics, applied at lower levels in the firm, can be at cross-purposes with performance improvement actions keyed to process (nonaccounting) variables. The solution is to employ systems principles in the development of more effective language keyed to performance improvement.
11. **Management's priorities**—Chapter 6 explains, using well-known and prominent company examples, the underlying logic for management's priorities to change, dependent on the firm's life-cycle position, as follows: for the high innovation stage—test critical assumptions; for the competitive fade stage—build or acquire capabilities to expand; for the mature stage—adapt early to fundamental change; for the failing business model stage—purge a culture of business-as-usual.

12. **Organizational structure**—A critically important part of sustaining a knowledge-building culture that minimizes bureaucratic waste is a firm's organizational structure. In Chapter 6, the benefits and challenges from transitioning to flatter organizations are analyzed. The evolution of a large Chinese firm, the Haier Group, is reviewed focusing on its changes in organizational structure attuned to the company's size and competitive environment.
13. **Company histories—**Throughout this book, company histories are analyzed that spotlight a company's long-term life-cycle track record with its key comparison of economic returns (returns on capital) versus the cost of capital. These track records are essential for any long-term study of how firms create or dissipate value. Life-cycle track records applied to a firm's business units will improve resource allocation decisions, and are especially helpful for analyzing the risk and potential reward from owning a firm's shares.
14. **Progress Studies**—There is a growing demand for a new academic discipline, Progress Studies, that will advance our understanding of the complex system relationships involved with dynamism and economic growth. Integrating the pragmatic theory of the firm with Progress Studies will accelerate an understanding of the processes by which firms build knowledge, create value, and generate progress—a bottom-up, concrete body of knowledge using the individual firm as the unit of analysis, as it should be: the firm is the fundamental unit of capitalism.

In conclusion, I was fortunate to have two friends volunteer to extensively edit the entire manuscript. As to writing, both are perfectionists. Jack Reardon is the author of economics textbooks and the founding editor of the

International Journal of Pluralism and Economics Education. Bryant Matthews is Global Director, Credit Suisse HOLT Research and the coauthor of *Beyond Earnings: Applying the HOLT CFROI and Economic Profit Framework*. Others at Credit Suisse have helped me on my journey: Jim Ostry, co-Head and Managing Director of Credit Suisse HOLT; Tom Hillman, Managing Director and head of HOLT's research team; and Rick Faery, Global Head of Corporate Insights Group, Credit Suisse Investment Banking. Especially useful comments were provided by Joe Cursio, Jerry Ellig, Maureen Ryan Healy, Keith Howe, Tom Malatesta, Jeff Ubois, and my sons, Greg Madden and Jeff Madden. I am grateful to Mark Frigo, who frequently invited me to present many of the ideas in this book to his MBA students at DePaul University. I appreciate the graphic design skills of Kimberly and Johnny Allgaeuer, who produced the book's many figures.

Finally, I am on the Executive Advisory Board of the Center for Advancing Corporate Performance (CACP) started at the Illinois Institute of Technology. I am working with Mark Ubelhart, David Koenig, and others to make CACP a world-class organization in providing practical insights about value creation for broad stakeholder groups using the business firm as the fundamental unit of analysis.

NOTES

1 Bartley J. Madden, 1991, “A Transactional Approach to Economic Research,” *Journal of Socio-Economics* 20(1): 57–71; available at my website www.LearningWhatWorks.com. This article emphasizes how language affects our perceptions of the world. This important issue is reflected in the knowledge-building process used in many of the chapters in this book. See the 2017 TED talk by Lera Boroditsky, “How language

shapes the way we think." See also Bartley J, Madden, 2012, "Management's Worldview: Four Critical Points about Reality, Language, and Knowledge Building," *Journal of Organizational Computing and Electronic Commerce* 22(4): 334–346, and Bartley J. Madden, 2014, *Reconstructing Your Worldview: The Four Core Beliefs You Need to Solve Complex Business Problems*, Naperville, IL: LearningWhatWorks.

2 CFROI is a trademark of CreditSuisse AG and its affiliates.

Part I
A Firm's Role in Society

1
OVERVIEW OF THE PRAGMATIC THEORY OF THE FIRM

> *In my experience, motivating employees with a sense of purpose is the only way to deliver innovative products, superior service, and unsurpassed quality over the long haul.… An organization of highly motivated people is hard to duplicate. The motivation will last if it is deeply rooted in employees' commitment to the intrinsic purpose of their work.*
>
> —Bill George[1]

> *Business ethics, then, has to do with the authenticity and integrity of the enterprise.… Those who cannot serve the corporate vision are not authentic businesspeople and, therefore, are not ethical in the business sense.… In a company, a leader is a person who understands, interprets, and manages the corporate value system. Effective managers, therefore, are action-oriented people who resolve conflict, are tolerant of ambiguity, stress, and change, and have a strong sense of purpose for themselves and their organizations.*
>
> —Bowen H. McCoy[2]

Theories of the firm arise from the motivations of their developers. They initially define a firm in a way that is compatible with their objectives and their worldview. This chapter shows how theories of the firm evolved in the disciplines of economics, finance, and management. In addition, this review places the pragmatic theory of the firm in historical context, highlights the main differences separating the pragmatic theory from alternative theories, and provides an initial assessment of its usefulness.

THE NUCLEUS OF THE PRAGMATIC THEORY OF THE FIRM

Any theory of the firm involves an answer to this question: What is a firm? The pragmatic theory defines a firm as a dynamic system of coordinated activities that evolves as management and employees build knowledge in order to efficiently create value for customers, and that knowledge-building proficiency, relative to competitors, determines a firm's life cycle and the extent of rewards to its stakeholders over time.

How should the usefulness of the pragmatic theory of the firm be gauged versus other theories of the firm? Six metrics can help.

1. **Clarity about the firm's purpose.** Any theory about the functioning of a firm needs to be clear about how the purpose of the firm provides guidelines for creating value for all of the firm's stakeholders. As the above quote by Bill George, former CEO of Medtronic, emphasizes, a firm's purpose is its bedrock foundation.
2. **Source of competitive advantage.** The pragmatic theory specifies that the *source* of long-term competitive advantage (disadvantage) is a firm's knowledge-building proficiency being greater (less) than competitors. This stake in the ground can help management prioritize performance improvement projects. How often do we hear that capability X is the key to a firm's competitive advantage? But, shouldn't the question of interest be: What is the source for

improving capability X over time? And the answer circles back to a firm's knowledge-building proficiency.

3. **Understanding the firm's market valuation.** A strong suit of the pragmatic theory is how it connects a firm's core activities (e.g., work, innovation, and resource allocation) to its publicly traded market value (estimated for privately held firms). Currently, important issues tend to be analyzed without treating the firm as a dynamic, holistic system. For example, academic finance has a theory of asset pricing—the Capital Asset Pricing Model (CAPM) and its variations, which tie together risk and return. This equilibrium theory of asset pricing has been applied in accounting, management, and economic research because heretofore theories of the firm were incomplete due to ignoring key variables concerned with the market valuation of firms. However, the pragmatic theory of the firm provides new angles of thinking about important finance/management issues such as risk, cost of capital, intangible assets, competitive advantage, firm performance, resource allocation, and valuation. For many, this will be a transition that agrees with their business intuition by avoiding the constraint of firm risk being synonymous with the extent of co-movement (Beta) of a firm's stock price with the general market regardless of a firm's ability to be a viable competitor in an increasingly tough global business environment. The pragmatic theory leads to testable hypotheses about firm performance and shareholder returns (see Chapter 5).

4. **Source of improved operating performance.** The pragmatic theory predicts that performance of managerial tasks (e.g., strategy formulation, new product development, quality control, etc.) will improve