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THE EVOLUTION OF ORGANIZATIONAL MANAGEMENT THROUGH SHIFTING PARADIGMS

*Management paradigms have evolved alongside the development of change management, each responding to organizational challenges in adapting to new realities. Thomas Kuhn's theory of paradigm shifts offers a conceptual framework to understand these transitions, where dominant approaches persist until anomalies provoke revolutionary changes. This perspective is particularly relevant in today's dynamic environments shaped by globalization and technological advancement. **Purpose.** This study explores the evolution of management paradigms within the context of change management, applying Kuhn's framework to analyze their progression. It evaluates contributions from key thinkers – Frederick Taylor, Henri Fayol, Elton Mayo, Douglas McGregor, and W. Edwards Deming – emphasizing the growing importance of Paradoxical Thinking as a framework for managing complexity and uncertainty. Special focus is placed on the IT sector, where adaptability is crucial for driving successful change. **Materials and Methods.** The study applies Kuhn's paradigm shift theory to trace the historical development of management thought. Foundational works are analyzed to evaluate each paradigm's contributions to change management practices, identifying achievements and exposing limitations. **Results.** Management paradigms, from Scientific Management to Agile Methodologies, introduced innovative approaches to organizational challenges but revealed inherent shortcomings. Scientific Management optimized efficiency but neglected human dynamics, leading to subsequent paradigms like Administrative Management and the Human Relations Movement. Systems Thinking and Lean Management later emphasized adaptability but left unresolved tensions. Paradoxical Thinking and Polarity Management represent a culmination of this evolution, providing effective approach to navigate inherent contradictions and drive innovation in organizational change. **Prospects.** Paradoxical Thinking enables organizations to transform tensions into opportunities for innovation and sustainable adaptability. By balancing competing priorities, it equips organizations to excel in environments of rapid and constant change, particularly in IT sectors.*

Keywords: *change management, paradigm shift, paradoxical thinking, polarity management, adaptive leadership, innovation, organizational complexity, IT companies.*

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ЕВОЛЮЦІЯ ОРГАНІЗАЦІЙНОГО МЕНЕДЖМЕНТУ ЧЕРЕЗ ЗМІНУ ПАРАДИГМ

***Вступ.** Парадигми управління еволюціонували разом із розвитком управління змінами, реагуючи на організаційні виклики в адаптації до нових реалій. Теорія Томаса Куна про парадигми і наукові революції пропонує концептуальну основу для розуміння цих трансформацій, де домінуючі підходи залишаються актуальними, доки аномалії не провокують революційні зміни. Цей підхід особливо важливий у сучасних динамічних умовах, сформованих глобалізацією та технологічним прогресом. **Мета.** Дослідження аналізує еволюцію управлінських парадигм, застосовуючи концепцію Куна для вивчення їх розвитку. Оцінює внесок ключових мислителів, таких як Фредерік Тейлор, Анрі Файоль, Елтон Мейо, Дуглас МакГрегор та Едвард Демінг, акцентуючи на зростаючій ролі парадоксального мислення як підходу до управління складністю та невизначеністю. Особливу увагу приділено ІТ-сектору, де адаптивність є критичною для успішного впровадження змін. **Матеріали і методи.** У дослідженні використовується теорія парадигмальних змін Куна для аналізу історичного розвитку управлінської думки. Аналізуються фундаментальні роботи, щоб оцінити внесок кожної парадигми в управління змінами, підкреслюючи досягнення та виявляючи обмеження. **Результати.** Управлінські парадигми, від наукового менеджменту до гнучких методологій, запропонували інноваційні підходи до організаційних викликів, але водночас виявили свої недоліки. Науковий менеджмент оптимізував ефективність, але ігнорував людський фактор, що призвело до виникнення таких парадигм, як адміністративне управління та рух людських відносин. Згодом системне мислення та ощадливе управління наголосили на адаптивності, але залишили невирішені напруження. Парадоксальне мислення та управління полярностями постають як кульмінація цієї еволюції, пропонуючи ефективний підхід для навігації внутрішніх протиріч та стимулювання інновацій в управлінні змінами. **Перспективи.** Парадоксальне мислення дозволяє організаціям перетворювати напруження на можливості для інновацій та сталої адаптивності. Балансуючи конкуруючі пріоритети, воно забезпечує організаціям можливість досягати успіху в умовах швидких і постійних змін, особливо в ІТ-секторі.*

Ключові слова: *управління змінами, зміна парадигм, парадоксальне мислення, управління полярностями, адаптивне лідерство, інновації, організаційна складність, ІТ-компанії.*

Problem statement. Management paradigms define how organizations operate and navigate change. Over time, these paradigms evolved to address emerging challenges but often created new problems. Understanding these shifts is essential for managing today's complex, innovation-driven environments. Traditional approaches often fail in fast-changing sectors like IT, where uncertainty dominates. Paradoxical Thinking offers a way to embrace these contradictions, reframing them as opportunities rather than obstacles [14, 26].

Analysis of recent research and publications. The evolution of management thought reflects a series of responses to the limitations of earlier paradigms:

– Frederick Taylor (1911): Scientific Management focused on efficiency and standardization, often neglecting human factors, leading to worker dissatisfaction [16, 27];

– Henri Fayol (1949): Administrative Management introduced structured principles but neglected individual motivations and external influences, resulting in rigid systems [7];

– Elton Mayo (1933): The Human Relations Movement highlighted the role of social dynamics and employee well-being. Mary Parker Follett promoted participative management but faced scalability challenges [8, 18];

– Douglas McGregor (1960) and Abraham Maslow (1943): The Behavioral Science Approach applied psychological theories to motivation and behavior but struggled with consistent application across diverse settings [10, 17, 19].

Later paradigms addressed these gaps:

– Ludwig von Bertalanffy (1968): Systems Thinking introduced a holistic view of organizations as interconnected systems but required advanced tools, limiting broad adoption [4];

– Paul Lawrence and Jay Lorsch (1967) Contingency Theory tailored practices to specific contexts but faced implementation challenges due to its complexity [13, 23];

– W. Edwards Deming, Taiichi Ohno, and Shigeo Shingo (1980s): Lean Management and Total Quality Management revolutionized manufacturing with waste reduction and quality control but struggled to scale effectively in other industries [6, 20, 24];

– Kent Beck and colleagues (2001): Agile Methodologies prioritized flexibility and responsiveness but often sacrificed strategic depth and led to team burnout [2, 21].

Recent ideas address complexity and contradictions:

– Barry Johnson (1992): Polarity Management proposed balancing competing priorities without sacrificing either [11];

- Marianne W. Lewis and Wendy K. Smith (2011): Paradoxical Thinking offered tools to manage tensions and drive innovation [14];

– Ivo Brughmans (2023): Paradoxical Leadership presented strategies to turn complexity into a competitive advantage [5].

These developments underscore the growing importance of embracing contradictions in managing modern organizational challenges.

Formulation of the article's objectives. This article aims to:

1. Analyze Paradigm Shifts: Trace the historical evolution of management paradigms, showing how each shift addressed prior limitations while introducing new challenges.

2. Demonstrate Paradoxical Thinking's Contributions: Show how Paradoxical Thinking enhances traditional paradigms to manage complexity effectively .

3. Explore Sector-Specific Relevance: Examine the theoretical and practical value of Paradoxical Thinking, particularly in fast-changing sectors like IT.

Main Material of the Study. The evolution of management paradigms, viewed through Kuhn's framework, demonstrates how each paradigm addressed specific challenges in managing organizational change while introducing new limitations [12]. Below is a summary and critical evaluation of key paradigms:

Scientific Management (Taylorism). Frederick W. Taylor introduced Scientific Management in 1911 to improve productivity through efficiency and standardization. His methods, including time and motion studies, sought the most effective way to perform tasks. However, this mechanistic approach overlooked human factors, leading to widespread dissatisfaction among workers (table 1).

Critical Reflection: While Scientific Management transformed manufacturing, its disregard for human dynamics limited its relevance in sectors requiring adaptability and innovation.

Henri Fayol's **Administrative Management** sought to establish universal principles for managing organizations. While it formalized management process, this rigid structure often ignored employee motivation and external factors, making it unsuitable for dynamic environments (table 2).

Critical Reflection: Administrative Management formalized operational structure but failed to address the dynamic and human elements of change management, restricting its broader applicability.

Table 1

Scientific Management (Taylorism)

Key Idea: Maximize productivity through efficiency and standardization. Key Contributors: Frederick W. Taylor, Frank and Lillian Gilbreth.		
Principles:	*Achievements:*	*Anomalies:*
Division of Labor: Assign specialized tasks to individuals for efficiency. Time and Motion Studies: Identify optimal methods for task execution. Standardization: Use uniform tools and procedures. Managerial Control: Enforce strict oversight to ensure compliance.	Boosted manufacturing efficiency and productivity. Laid the foundation for mass production. Established measurable productivity benchmarks.	Neglected human needs, leading to worker resistance. Rigid system stifled creativity and adaptability. Ethical concerns arose over treating workers as machine-like components.

Source: compiled by the authors on the basis of [27, 28, 16]

Table 2

Henri Fayol's Administrative Management

Key Idea: Develop universal principles to standardize management practices.		
Key Contributors: Henri Fayol, Max Weber, Luther Gulick.		
Principles:	*Achievements:*	*Anomalies:*
Five Functions: Planning, organizing, commanding, coordinating, and controlling. Scalar Chain: Maintain clear lines of authority. Unity of Command: Ensure employees report to a single supervisor. Discipline: Uphold rules and procedures to maintain order.	Provided a structured administrative framework. Emphasized hierarchy and operational efficiency. Pioneered bureacratic systems.	Neglected individual motivations and morale. Overlooked external influences, limiting adaptability. Created inflexible systems unable to respond to rapid change.

Source: compiled by the authors on the basis of [7]

Human Relations Movement emphasized the importance of social dynamics and employee well-being in productivity. Elton Mayo's Hawthorne Studies and Mary Parker Follett's advocacy for participative management highlighted the human element but faced scalability and measurement challenges [1, 18, 22] (table 3).

Critical Reflection: While the Human Relations Movement advanced understanding of workplace culture and human motivation, its reliance on social factors limited its scalability and applicability in complex organizational settings.

Behavioral Science Approach extended the Human Relations Movement by applying psychological theories to management. Groundbreaking concepts like McGregor's Theory X and Theory Y and Maslow's hierarchy of needs offered deeper insights into motivation and behavior but faced practical implementation challenges (table4).

Critical Reflection: The Behavioral Science Approach enriched management theory with psychological insights but struggled with consistent application, particularly in large, diverse organizations.

Systems Thinking and Contingency Theories introduced adaptability to management practices by treating organizations as dynamic systems. These paradigms emphasized tailoring strategies to specific contexts but faced challenges in practical application due to their reliance on advanced tools (table 5).

Critical Reflection: Systems Thinking and Contingency Theories significantly advanced management theory by emphasizing adaptability and interconnectedness. However, their complexity limited practical implementation, particularly in organizations lacking technical expertise.

Lean Management and Total Quality Management. Rooted in the Toyota Production System, Lean

Table 3

Human Relations Movement

Key Idea: Prioritize social factors and employee well-being in productivity.		
Key Contributors: Elton Mayo, Mary Parker Follett, Chester Barnard.		
Principles:	*Achievements:*	*Anomalies:*
Employee Relationships: Productivity improves when workers feel socially valued. Psychological Well-being: Satisfied workers perform better. Participative Management: Encourage employees to contribute to decisions. Informal Organizations: Recognize the influence of workplace social groups.	Introduced job satisfaction and employee motivation concepts. Shifted leadership from authoritarian to participative styles. Highlighted the role of workplace culture in organizational success.	Overemphasis on social dynamics overlooked other critical factors. Principles were difficult to implement across large and diverse organizations. Struggled to quantify social influences effectively.

Source: compiled by the authors on the basis of [1, 8, 18, 22]

Table 4

Behavioral Science Approach

Key Idea: Leverage behavioral science to enhance management practices.		
Key Contributors: Douglas McGregor, Abraham Maslow, Frederick Herzberg, Chris Argyris.		
Principles:	*Achievements:*	*Anomalies:*
Theory X and Theory Y: Contrasting views of worker motivation—one authoritarian vs. participative. Hierarchy of Needs: Motivation is driven by a progression of needs, from basic to self-actualization. Two-Factor Theory: Differentiate between hygiene factors (prevent dissatisfaction) and motivators (drive satisfaction). Organizational Development: Focus on change processes to improve effectiveness.	Advanced understanding of motivation and its impact on productivity. Promoted leadership styles that foster employee development. Introduced self-actualization as a driver of performance.	Application of psychological insights varied widely by context. Overemphasis on individual needs sometimes neglected team or organizational goals. Complexity in operationalizing abstract psychological concepts.

Source: compiled by the authors on the basis of [10, 17, 19, 23]

Management focuses on waste reduction and continuous improvement. Similarly, Total Quality Management (TQM), spearheaded by W. Edwards Deming, integrates quality control throughout organizational processes. While these paradigms revolutionized manufacturing, they struggled to scale effectively outside this domain without cultural adaptation (table 6).

Critical Reflection: Lean Management and TQM transformed manufacturing by creating leaner, more effective processes. However, their focus on cost and efficiency limited their applicability to sectors requiring flexibility and creativity, such as service industries.

Agile Methodologies revolutionized software development by prioritizing flexibility, responsiveness, and collaboration. Iterative process empowered teams and fostered innovation but often sacrificed long-term strategy, leading to burnout when principles were misapplied (table 7).

Critical Reflection: Agile methodologies reshaped software development by fostering adaptability and innovation. However, their overemphasis on speed often came at the expense of sustainability and long-term strategic planning.

Paradoxical Thinking and Polarity Management offer innovative approaches to managing organizational complexity by embracing contradictions. These paradigms balance opposing forces, such as stability and innovation, enabling organizations to navigate uncertainty effectively [11, 14]. Rooted in Gestalt psychology, they argue that transformation begins with accepting current realities [3].

Table 5

Systems Thinking and Contingency Theories

Key Idea: Organizations function as interconnected systems that adapt to their environments.
Key Contributors: Ludwig von Bertalanffy, Paul Lawrence, Jay Lorsch.

Principles:	*Achievements:*	*Anomalies:*
Feedback Loops: Use iterative process to guide continuous improvement. Tailored Strategies: Adapt management practices to specific organizational contexts. Integration: Ensure harmony between independent systems within an organization.	Highlighted the complexity of organizations and the need for adaptability. Encouraged resilient system designs capable of managing change. Promoted integration across functions, driving cohesive operations.	Practical application often required advanced analytical tools, limiting accessibility. Overgeneralized frameworks struggled to address unique organizational nuances.

Source: compiled by the authors on the basis of [4, 13, 23]

Table 6

Lean Management and Total Quality Management

Key Idea: Streamline processes by eliminating waste and fostering continuous improvement.
Key Contributors: W. Edwards Deming, Taiichi Ohno, Shigeo Shingo.

Principles:	*Achievements:*	*Anomalies:*
Continuous Improvement (Kaizen): Drive incremental enhancements. Quality Control: Embed quality assurance at every stage. Waste Reduction: Eliminate non-value-adding activities. Systemic Thinking: Treat the organization as a unified, interconnected system. Employee Empowerment: Involve workers in identifying and solving problems.	Revolutionized manufacturing with substantial gains in efficiency and quality. Introduced just-in-time production, reducing waste and inventory costs. Enhanced customer satisfaction through consistent delivery of high-quality products.	Overemphasis on cost-cutting often undermined innovation and long-term strategies. Required significant cultural adaptation, difficult in less structured settings. Struggled to scale service-oriented industries due to differences in operational contexts.

Source: compiled by the authors on the basis of [6, 20, 24]

Table 7

Agile Methodologies

Key Idea: Introduce flexibility and responsiveness through iterative development.
Key Contributors: Kent Beck, Alistair Cockburn, Mike Beedle.

Principles:	*Achievements:*	*Anomalies:*
Iterative Development: Divide work into short, manageable cycles. Team Autonomy: Empower teams to self-organize and make decisions. Customer Collaboration: Engage customers throughout the development process. Responsiveness: Adapt quickly to changing requirements and market demands.	Replaced rigid processes with adaptive methodology. Encouraged team collaboration and creative problem-solving. Reduced development cycles, enabling faster time-to-market.	Focus on speed often undermined strategic depth. Misapplication of principles led to inefficiencies and inconsistent outcomes. High demands on teams frequently resulted in burnout and reduced morale.

Source: compiled by the authors on the basis of [2, 21]

Polarity Management focuses on managing interdependent values, acknowledging both sides of a polarity as essential. Paradoxical Thinking extends this by treating certain challenges as paradoxes to be managed rather than solved. Paradoxical Leadership builds on these concepts, offering practical tools to turn complexity into a competitive advantage (table 8).

Critical Reflection: Paradoxical Thinking and Polarity Management represent a pivotal shift in management thought, offering tools to manage complexity rather than avoiding it. However, their reliance on mental flexibility and cultural change presents challenges in traditional settings.

Theoretical Implications. The evolution of management paradigms reflects a sustained effort to balance opposing forces: efficiency and flexibility, stability and change, control and adaptability. Paradoxical Thinking offers a comprehensive framework to navigate these tensions by treating opposites as complementary rather than conflicting. This shift enables organizations to move beyond linear problem-solving, embracing the dynamic complexity of modern environments.

Key implications include:

1. Conceptual Shifts: Paradoxical Thinking challenges the traditional either/or mindset by promoting "both/and" solutions. This approach advances management theory, making it better equipped to handle interconnected challenges and uncertainty [14, 26].

2. Leadership Evolution: Leaders must develop cognitive flexibility to balance competing priorities, such as short-term efficiency and long-term innovation. This capability is essential for sustained growth and adaptability without sacrificing one priority for another [5].

3. Cultural Transformation: Success in complex environments requires organizations to adopt a culture of adaptability, continuous learning, and openness to ambiguity. Such a culture fosters resilience and aligns with the principles of Paradoxical Thinking [15].

By addressing these implications, future research can deepen the understanding of managing contradictions and enrich the theoretical foundation of Paradoxical Thinking.

Discussion. The progression of management paradigms highlights the continuous effort to reconcile organizational challenges with evolving frameworks. Each paradigm offered valuable insights but also exposed limitations, driving further development. A comparative analysis reveals recurring tensions and unresolved issues that persist across paradigms.

Recurring Tensions:

– Efficiency vs. Flexibility: Scientific Management prioritized efficiency at the expense of adaptability. Later paradigms, including Systems Thinking and Agile Methodologies, aimed to bridge this gap but often struggled to sustain balance.

– Control vs. Autonomy: Administrative and Behavioral Science paradigms emphasized centralized decision-making while encouraging employee empowerment. However, this duality remains a challenge in modern organizations, creating friction between hierarchy and autonomy.

Theoretical Advancements:

– Recognition of Complexity: Systems Thinking introduced the concept of interconnected systems, marking a shift in how organizations are understood. Paradoxical Thinking builds on this foundation by managing contradictions rather than resolving them linearly.

– Integration of Opposing Forces: Paradoxical Thinking reframes contradictions as essential drivers of innovation and adaptability. This approach allows organizations to leverage inherent trade-offs for strategic advantage.

Unresolved Challenges:

– Cognitive and Cultural Shifts: Adopting Paradoxical Thinking demands significant changes in mindset and organizational culture. Many organizations struggle to embrace the ambiguity and dualities it requires.

– Empirical Validation: While Paradoxical Thinking provides a strong theoretical framework, its practical application remains underexplored and requires further empirical studies.

Relevance to IT and Beyond:

- The IT sector exemplifies the challenges of rapid change and uncertainty, where traditional paradigms often fail. Paradoxical Thinking aligns closely with these dynamics, offering a lens to understand and improve IT management practices.

The discussion underscores the importance of continuous exploration to refine management paradigms. By addressing unresolved tensions and enhancing frameworks like Paradoxical Thinking, researchers and practitioners can ensure that management theories remain relevant in navigating modern complexities.

Table 8

Paradoxical Thinking and Polarity Management

Key Idea: Embrace contradictions and manage interdependent polarities to leverage organizational complexity.		
Key Contributors: Marianne W. Lewis, Wendy K. Smith, Ivo Brughmans, Barry Johnson.		
Principles:	*Achievements:*	*Anomalies:*
Acceptance of Current Reality: Embrace the present situation as a foundation for change. Embrace Tensions: Recognize inherent contradictions within organizations. Both/And Thinking: Integrate opposing forces instead of choosing between them. Polarity Management: Balance interdependent values for sustained organizational health. Adaptive Leadership: Develop cognitive flexibility to manage competing demands effectively.	Provided a framework for navigating complexity and ambiguity. Fostered innovation by leveraging tensions inherent in systems. Enhanced adaptability and resilience in dynamic environments. Improved leadership effectiveness through nuanced decision-making.	Requires significant cognitive effort and mental adaptability from leaders. Faces resistance in traditional, rigid organizational cultures.

Source: compiled by the authors on the basis of [5, 11, 14]

Future Research Directions. This study identifies several areas for future research to deepen the understanding and practical relevance of Paradoxical Thinking in change management:

1. Test Effectiveness: Conduct empirical studies across diverse organizational contexts to evaluate the practical application of Paradoxical Thinking and Polarity Management. Identify their strengths, limitations, and factors influencing their success.

2. Theoretical Integration: Investigate how Paradoxical Thinking aligns with theories like chaos theory and systems thinking. Explore opportunities to create a unified framework that bridges these concepts.

3. Cultural Contexts: Study how organizational and cultural differences affect the adoption of paradoxical approaches. Determine the conditions that support or hinder their effectiveness.

4. Leadership Skills: Design and assess training programs that equip leaders and employees with paradoxical thinking skills. Measure the impact of these programs on decision-making, adaptability, and problem-solving in dynamic environments.

5. Ethical Implications: Explore how paradoxical frameworks affect employee well-being, trust, and organizational ethics. Analyze potential risks and benefits to ensure a balanced application.

6. Technology Integration: Evaluate the role of emerging technologies, particularly artificial intelligence, in supporting or complicating paradoxical approaches. Determine whether these tools can help organizations manage contradictions more effectively.

By addressing these areas, future research can build on the theoretical and practical foundations of Paradoxical Thinking, enabling organizations to adapt, innovate, and thrive in increasingly complex environments.

Conclusions. This study explores the evolution of management paradigms through Thomas Kuhn's concept of paradigm shifts, focusing on how each paradigm addressed prior challenges while introducing new complexities. Paradoxical Thinking, as the latest development, represents a transformative approach by shifting the focus from problem-solving to managing inherent contradictions.

By reframing contradictions as opportunities, Paradoxical Thinking provides a robust theoretical foundation for navigating the complexities of modern organizational change. While this article does not explore practical applications in detail, it establishes the groundwork for future studies to examine how this framework can shape management theories and practices.

Key contributions:

1. Theoretical Progression: Tracing the historical evolution of management paradigms, highlighting their strengths, limitations, and unresolved tensions.

2. Critical Insights: Showing how Paradoxical Thinking offers practical tools to manage contradictions in complex systems, moving beyond the linear approaches of earlier paradigms.

3. Opportunities for Research: Proposing specific directions for further exploration, including cultural impacts ethical considerations, and the integration of emerging technologies with paradoxical frameworks.

4. Leadership Implication: Stressing the importance of equipping leaders with skills to manage contradictions, improving decision-making and adaptability in dynamic environment.

5. Cultural Relevance: Highlighting the need for organizations to cultivate culture of openness to ambiguity, continuous learning, and adaptability to navigate uncertainty effectively.

REFERENCES

1. Barnard C. I. (1938). The Functions of the Executive. Cambridge, MA: Harvard University Press.

2. Beck K., Beedle M., van Bennekum A., Cockburn A., Cunningham W., Fowler M., et al. (2001). Manifesto for Agile Software Development. Agile Alliance. Available at: https://agilemanifesto.org/ (Accessed 18 November 2024)

3. Beisser A. (1970). The paradoxical theory of change. In: Fagan J. and Shepherd I. L. (eds.) Gestalt Therapy Now: Theory, Techniques, Applications. New York, NY: Harper & Row, pp. 77–80.

4. Bertalanffy L. von. (1968). General System Theory: Foundations, Development, Applications. New York: George Braziller.

5. Brughmans I. (2023). Paradoxical Leadership: How to Make Complexity an Advantage. London: Kogan Page.

6. Deming W. E. (1986). Out of the Crisis. Cambridge, MA: MIT Press.

7. Fayol H., 1949. General and Industrial Management. London, UK: Pitman Publishing.

8. Follett M. P. (1926). The giving of orders. In: Metcalf, H. C. (ed.) Scientific Foundations of Business Administration. Baltimore: The Williams & Wilkins Company, pp. 224–237.

9. Graham P. (ed.) (1995). Mary Parker Follett: Prophet of Management. Boston MA: Harvard Business School Press.

10. Herzberg F. (1959). The Motivation to Work. New York, NY: John Wiley & Sons.

11. Johnson B. (1992). Polarity Management: Identifying and Managing Unsolvable Problems. Columbus, OH: HRD Press.

12. Kuhn T. S. (1962). The Structure of Scientific Revolutions. Chicago, IL: University of Chicago Press.

13. Lawrence P. R. and Lorsch J. W. (1967). Organization and Environment: Managing Differentiation and Integration. Boston, MA: Harvard Business School Press.

14. Lewis M. W. and Smith W. K. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review,* 36 (2), pp. 381–403. DOI: https://doi.org/10.5465/amr.2009.0223

15. Lewis M. W., Smith W. K. (2014). Paradox as a metatheoretical perspective: Sharpening the focus and widening the scope. *The Journal of Applied Behavioral Science*, 51 (2), pp. 127–149. DOI: https://doi.org/10.1177/0021886314522322

16. Locke E. A. (1982). The ideas of Frederick W. Taylor: An evaluation. *Academy of Management Review*, 7 (1), pp. 14–24. DOI: https://doi.org/10.2307/257244

17. Maslow A. H. (1943). A theory of human motivation. *Psychological Review*, 50 (4), pp. 370–396. DOI: https://doi.org/10.1037/h0054346

18. Mayo E. (1933). The Human Problems of an Industrial Civilization. New York, NY: Macmillan.

19. McGregor D. (1960). The Human Side of Enterprise. New York, NY: McGraw-Hill.

20. Ohno T. (1988). Toyota Production System: Beyond Large-Scale Production. Portland, OR: Productivity Press.

21. Rigby. D. K., Sutherland J., Takeuchi H. (2016). Embracing agile. Harvard Business Review, 94 (5), pp. 40–50. Available at: https://hbr.org/2016/05/embracing-agile (Accessed 18 November 2024)

22. Roethlisberger F. J. and Dickson W. J. (1939). Management and the Worker. Boston, MA: Harvard University Press.

23. Scott W. R., (1981). Organizations: Rational, Natural, and Open Systems. Upper Saddle River, NJ: Prentice Hall.

24. Shingo S. (1989). A Study of the Toyota Production System from an Industrial Engineering Viewpoint. Portland, OR: Productivity Press.

25. Smith W. K., Lewis M. W. (2014). Leadership skills for managing paradoxes. *Industrial and Organizational Psychology*, 7 (2), pp. 224–231. DOI: http://dx.doi.org/10.1111/j.1754-9434.2012.01435.x

26. Smith W. K. and Lewis M. W. (2022). Both/And Thinking: Embracing Creative Tensions to Solve Your Toughest Problems. Boston, MA: Harvard Business Review Press.

27. Taylor F. W. (1911). The Principles of Scientific Management. New York, NY: Harper & Brothers.

28. Wren D. A. (1994). The Evolution of Management Thought. 4th ed. New York, NY: John Wiley & Sons.

29. Zhang Y., Waldman D. A., Han Y. and Li X. (2015). Paradoxical leader behaviors in people management: Antecedents and consequences. *Academy of Management Journal*, 58 (2), pp. 538–566. DOI: https://doi.org/10.5465/amj.2012.0995