

DOI: <https://doi.org/10.36719/2706-6185/47/74-79>

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## The Evolution of Management Theories: from Taylorism to Agile Leadership

### Abstract

The article presents the current state of management theory, which is shaped by the evolutionary development of successive principles, methods, and techniques. Empirical research has led the author to conclude that management theory is developing in several directions. The first is based on the enduring principles of Taylorism, which reinforce bureaucratization and administrative authority. The second is built on institutional integrated principles that ensure a balance of interests between labour, capital, society, and the environment. The third focuses on flexible principles of virtual management, fostering leadership, teamwork, and internal motivation.

**Keywords:** *management, Taylorism, socio-economic systems, interdisciplinary approach, self-organization, leadership*

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## İdarəetmə nəzəriyyələrinin təkamülü: teylorizmdən çevik liderlik

### Xülasə

Məqalədə idarəetmə nəzəriyyəsinin hazırkı vəziyyəti təqdim olunur və bu vəziyyət ardıcıl olaraq inkişaf edən prinsiplər, metodlar və texnikalar əsasında formalaşır. Müəllifin apardığı empirik tədqiqatlar belə bir nəticəyə gəlməyə əsas verir ki, idarəetmə nəzəriyyəsi bir neçə istiqamətdə inkişaf edir. Birinci istiqamət, bürokratlaşmanı və inzibati səlahiyyətləri gücləndirən Teylorçuluğun dəyişməz prinsiplərinə əsaslanır. İkinci istiqamət, əmək, kapital, cəmiyyət və ətraf mühit arasında maraqların balansını təmin edən institusional inteqrasiya olunmuş prinsiplərə söykənir. Üçüncü istiqamət isə liderlik, komanda işi və daxili motivasiyanı təşviq edən çevik virtual idarəetmə prinsiplərinə diqqət yetirir.

**Açar sözlər:** *idarəetmə, Teylorçuluq, sosial-iqtisadi sistemlər, fənlərarası yanaşma, özünü təşkil etmə, liderlik*

### Introduction

The problem field of modern management and its development vectors are determined by the processes of globalization and regionalization, demographic shifts worldwide, local and global crises, and the development of information and communication technologies (ICT) during the transition to the sixth technological paradigm. The globalization of business processes and management has stimulated the development of management theory and practice. Certain projects and methodologies have been implemented, such as TQM, BSC, Six Sigma, and lean manufacturing. At the same time, a universally recognized concept for the development of management has not yet been established.

## **Research Methodology**

To assess the current state of management theory, the author has utilized the results of an empirical analysis of scientific studies in the fields of management, economics, and administrative sciences, as well as sociology, information technology, and economic systems.

## **Literature Review**

The fundamental concepts of management involve understanding it as the modeling and administration of socio-economic systems aimed at achieving efficiency in the production of goods or services. The principles and methods of the management system enable the identification of specific models, which are shaped through the process of technological and social development.

## **Research**

Until the 1990s, Western management developed based on the principles of Taylorism and administrative management (Vaszkun, 2013). From the second half of the 20th century, Western management began incorporating research findings from psychology and sociology, which contributed to the emergence of behavioral approaches in management (Wren & Bedeian, 2023). This shift led to the abandonment of the universal principles of the administrative school in favor of the concept of situational management.

The restructuring processes opened the market to Western principles, methods, and management techniques. Management by objectives, human resource management, balanced scorecards, and value-based management principles began to be implemented, with company valuation assessed using the real options model (Oke, 2023). The dominant functional management approach, which prevailed throughout the 20th century, gradually began to be replaced by process management from the late 1990s onward.

Despite the development of Taylorism-based principles and methods toward various management approaches—such as reengineering, process management, and project management—the vertical hierarchy of management and top-down command principles remain largely intact (Amis et al, 2020). In many cases, management is still carried out in a "manual" mode, where the direct intervention of a country's top official is required to address operational and tactical issues at regional and organizational levels (Wilensky, 2015).

At the same time, the development of the internet, ICT, cloud technologies, digital platforms, and other technological innovations of the Fourth Industrial Revolution is having a transformative impact on the production of goods and services (Morrar et al, 2017). Social networks, blogs, crowdsourcing, rating methodologies, and other elements of the new communication paradigm are rapidly evolving. Participants in business processes are increasingly engaged in networked interactions, self-organizing into temporary virtual teams, and utilizing artificial intelligence to support and implement managerial decisions in traditional functions such as planning, organization, motivation, accounting, analysis, and regulation. The new business environment infrastructure enables the integration and coordination of participants' actions, regardless of geographic location or national borders, in the process of creating added value (Bamber et al, 2014).

New organizational forms of interaction ensure the flexibility of organizational structures and effective adaptation to rapidly changing conditions (Pacheco-Cubillos et al, 2024). Network structures are becoming "production units," facilitating the integration and coordination of joint actions to reduce uncertainty, enhance resource and information exchange, and drive the creation and implementation of product-technological and organizational-management innovations. In networked interactions, the traditional relationship between manager and employee is minimized, while the importance of information exchange between machines (such as chatbots, artificial intelligence, and neural networks) increases significantly (Sun & Yung, 2024).

These changes influence the style of relationships between network participants and lead to a new understanding of power, based on knowledge and competencies. All forms of capital—physical, financial, human, intellectual, and social—are actively involved in network interactions.

Consequently, as business conditions become increasingly uncertain, companies are more frequently required to adopt a project-based approach, incorporating the principles of flexibility (Agile) (Cobb, 2023).

At the same time, the diversity of approaches and concepts in management theory and practice reflects the multidimensional nature of reality and its assessments, as well as the varying interpretations of management depending on specific situations (Hatch, 2018). This suggests the absence of a unified concept for the development of management theory. Within the field of management, three directions of development coexist: classical Taylorism, institutional integrated management, and virtual management.

### Findings and Discussion

To expand on this discussion, we can explore the interconnection and evolution of these three management approaches—classical Taylorism, institutional integrated management, and virtual management—within the context of modern business dynamics.

**Hybrid Management Models** - While these three directions coexist, many organizations are increasingly adopting hybrid models that blend elements of each. For example, companies may still rely on structured, hierarchical systems (Taylorism) for operational efficiency, while also integrating institutional principles to ensure corporate social responsibility and virtual management techniques to enhance flexibility and innovation (Jakhongir, 2025).

Hybrid management models represent a synthesis of multiple management approaches, allowing organizations to adapt to changing business environments while maintaining efficiency and innovation (Appio et al, 2021). By combining elements from traditional, institutional, and digital management theories, hybrid models create a flexible, responsive, and resilient organizational structure.

Hybrid management is defined by the integration of structured and flexible approaches, balancing hierarchical control with decentralized decision-making (Marinov et al, 2022). Key features are provided in Figure 1.



Source: Author's Own Appio et al, 2021; Marinov et al, 2022.

Adaptive leadership combines top-down strategic oversight with bottom-up innovation, ensuring both stability and responsiveness in decision-making. Technology integration leverages AI, automation, and big data to enhance decision-making while maintaining human oversight for critical interventions. Agile processes blend Taylorism efficiency with Agile adaptability, allowing organizations to remain both structured and flexible in response to market changes. The employee-centric approach balances institutional management values, ensuring stakeholder engagement while incorporating virtual work flexibility for modern workforce needs. The global-local strategy maintains centralized strategic goals while empowering regional or team-based decision-making, allowing for localized adaptation without losing overall alignment.

Hybrid management emerged as a response to the limitations of traditional management models,

which struggled to adapt to rapid technological and social changes (Ahlstrom et al, 2020). The shift can be outlined in three key phases.

Industrial-era management, characterized by Taylorism and bureaucracy, focused on efficiency, standardization, and hierarchy (Klečina et al, 2024). Examples include Ford's assembly line and Weber's bureaucratic structures. As economies evolved, the knowledge economy and institutional integration placed greater emphasis on stakeholder balance, employee well-being, and corporate social responsibility. This phase introduced methodologies such as Total Quality Management (TQM), Six Sigma, and the Balanced Scorecard.

The digital and agile management era brought new models such as virtual management and AI-driven decision-making, facilitating remote work, decentralized teams, and the gig economy (Omachi & Ajewumi, 2024). Examples of this shift include Agile methodologies, Lean Startups, Scrum frameworks, Holacracy, and Decentralized Autonomous Organizations (DAOs).

Modern hybrid management blends all three phases—preserving efficiency from traditional structures, ensuring stakeholder engagement from institutional integration, and leveraging digital innovation to remain adaptable in a rapidly changing business environment.

Hybrid management in practice can be seen in companies that successfully integrate structured efficiency with innovation and flexibility.

Tesla exemplifies structured innovation by maintaining a traditional hierarchical structure for manufacturing efficiency while implementing Agile product development to accelerate innovation. The company also leverages AI and automation for data-driven decision-making, optimizing its production and vehicle software updates.

Google operates with a decentralized innovation model under centralized oversight. It fosters employee autonomy and cross-functional teams through Agile methodologies while applying Taylorism principles to core operations such as HR, finance, and legal departments. Additionally, institutional principles guide its strong corporate social responsibility (CSR) initiatives and workplace policies.

Amazon focuses on process efficiency and AI-driven optimization. Its warehouse and logistics operations follow Taylorism efficiency principles, enhanced by AI-driven automation. Simultaneously, Agile methodologies drive its software and cloud service development through AWS. The company's customer-first institutional policies rely on data-driven personalization, ensuring adaptability and continuous improvement in customer experience.

**Impact of Digital Transformation** - The rise of automation, artificial intelligence, and machine learning is reshaping all three management approaches. Taylorism is evolving through robotic process automation (RPA), institutional management is being reinforced by data-driven decision-making, and virtual management is thriving with the rise of remote work, cloud-based collaboration, and decentralized organizations.

Digital transformation is reshaping management by integrating advanced technologies into business operations, decision-making, and organizational structures. AI, automation, and big data analytics are enhancing efficiency and enabling predictive decision-making, reducing reliance on traditional hierarchical models. Cloud computing and digital platforms facilitate remote work and decentralized collaboration, allowing businesses to function across borders without physical constraints. The rise of digital communication tools, including AI-driven chatbots and virtual assistants, is streamlining customer service and internal processes while minimizing delays. Blockchain and cybersecurity advancements are increasing transparency and trust in financial transactions, supply chain management, and data security. The shift toward digital ecosystems and platform-based business models is fostering new revenue streams and disrupting traditional industries. Companies that embrace digital transformation gain agility, operational efficiency, and competitive advantage, while those resistant to change risk obsolescence in an increasingly data-driven economy.

**Challenges in Balancing the Three Approaches** - Companies often struggle with resistance to change when shifting between these models. Traditional industries may find it difficult to transition from a hierarchical Taylorism structure to a more flexible, decentralized virtual management

approach. Similarly, balancing economic efficiency (Taylorism), stakeholder interests (institutional management), and digital adaptability (virtual management) requires strategic alignment and cultural shifts.

Balancing the three approaches—classical Taylorism, institutional integrated management, and virtual management—presents significant challenges for organizations striving to remain competitive and adaptive in a rapidly evolving business environment.

One of the primary difficulties is resistance to change, particularly in traditional industries where hierarchical structures and rigid processes are deeply embedded. Employees and managers accustomed to Taylorism efficiency may struggle to embrace the decentralized decision-making and flexibility of Agile and virtual management models.

Another challenge lies in balancing control and flexibility. While Taylorism principles provide stability and efficiency, excessive rigidity can stifle innovation. On the other hand, too much reliance on Agile and virtual management approaches without sufficient oversight can lead to inconsistencies, misalignment, and inefficiencies in execution.

Technology dependence introduces further complexity, as organizations must invest in AI, automation, and data-driven decision-making while ensuring that human oversight remains a critical factor. Relying too heavily on automation without maintaining a human-centered approach can lead to ethical concerns, data biases, and diminished employee engagement.

Cultural alignment is also crucial, as employees operating in hybrid management structures must shift between structured and flexible roles. This requires organizations to develop leadership strategies that foster adaptability, communication, and collaboration across different management styles.

Successfully integrating these three approaches requires a strategic balance, where efficiency from Taylorism is maintained, institutional principles support stakeholder engagement, and virtual management enables agility and innovation in a digitally connected world. Organizations that effectively navigate these challenges will be better positioned to thrive in an increasingly complex and dynamic business landscape.

***Future of Hybrid Management Models*** – With increasing technological integration, hybrid management will evolve toward AI-augmented decision-making, where artificial intelligence supports predictive analytics, automation, and adaptive leadership. Decentralized Autonomous Organizations (DAOs) will emerge as blockchain-powered governance models that minimize bureaucracy and enhance transparency. Self-managing teams will become more prevalent, with employees taking ownership of workflows through self-organization, reducing the need for traditional hierarchical oversight. Sustainability-driven business models will gain prominence, merging institutional management values with data-driven ecological strategies to ensure long-term viability. Hybrid management models are not merely a trend but a necessity, enabling businesses to remain competitive in an unpredictable global market.

## Conclusions

Empirical research in the field of management, based on a large database of articles and monographs from both Western and global scientific literature, has led to the conclusion that management theory is developing in three main directions. The first is the preservation of the classical model (Taylorism), which maintains hierarchical, structured management. The second is an integrated approach, combining elements of rigid hierarchical management with the development of process-oriented and institutional components. The third is the emergence of innovative virtual models, which emphasize flexibility, decentralization, and digital transformation.

The principles of new management fundamentally oppose classical management principles, focusing on diversity, initiative, adaptation, flexible power distribution, delegation, and internal motivation. The absence of a unified paradigm for the development of management theory is linked to the complexity of economic, technological, and cultural factors that shape organizational practices across different regions and industries.

A critical step in advancing management research is to synthesize empirical findings while incorporating historical, civilizational, and ethical values, ensuring that management models align with cultural and economic realities. Developing adaptable and context-aware organizational and economic mechanisms is essential for fostering sustainable and effective global management practices.

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Received: 13.01.2025

Accepted: 18.04.2025