

The Changing Concept of Agile Management: A New Interpretation of Flexibility in the 21st Century

Géza Horváth¹, Szilárd Malatyinszki², Csanád Albert-Lőrincz³

¹Kodolányi János University, Budapest, Hungary

ORCID: 0009-0004-2757-3826

Email: horvath.geza@kodolanyi.hu

²John von Neumann University, Department of Management and Business Law/Faculty of Economics,

Kecskemét, Hungary

ORCID: 0000-0002-1624-4902,

Email: malatyinszki.szilard@nje.hu

³Partium Christian University, Faculty of Economics and Social Sciences, Oradea, Romania

ORCID: 0009-0002-2925-4736,

Email: alcs@gmx.net

Abstract

Purpose – This paper reinterprets agile management as a multi-level organisational capability rather than as a project-level technique. It argues that the development of agility in the 21st century can be understood through three interrelated layers: project-level agile methods, lean–agile integration and scaling, and organisation-wide agility. The study also examines the contextual conditions under which agility can be embedded in organisational systems, with particular attention to leadership, culture, trust, spatial embeddedness and emerging AI-supported decision environments.

Design/methodology/approach – The article adopts a conceptual review design based on an integrative literature review. The analysis draws on peer-reviewed journal articles, seminal books and a limited number of primary framework documents relevant to the historical development of agile management. The literature was selected through database searches and iterative screening using explicit inclusion criteria. The synthesis is organised through a three-layer conceptual model that links project practices, organisational design and contextual contingencies.

Findings – The review shows that agility evolved from a software development approach into a broader organisational logic shaped by leadership transformation, distributed decision-making, psychological safety, continuous learning and adaptive structures. However, the study also finds that the expansion of agility is neither linear nor universally transferable. Lean and agile thinking overlap in important ways, but they differ in their underlying organisational logic. The success of agile transformation depends on boundary conditions such as organisational maturity, industry characteristics, cultural trust, regional innovation context and governance capacity. AI-supported agility may strengthen responsiveness, but it also introduces ethical, legal and accountability challenges. The synthesis further indicates that organisational agility cannot be inferred from the presence of agile methods alone. Across the reviewed literature, successful transitions toward organisation-wide agility were consistently associated with governance redesign, leadership transformation, learning-oriented culture and supportive contextual conditions.

Originality/value – The paper contributes by offering a clearer conceptual model of agile evolution, by identifying the mechanisms and limits of movement from team-level agility to organisation-wide agility, and by integrating leadership, culture, regional context and AI governance into the analysis. It also formulates a set of propositions for future research on organisational agility as a context-dependent capability.

Keywords: agile management; organisational agility; lean–agile; business agility; servant leadership; agile transformation; regional context; AI-supported management

Paper type: Review article

1. Introduction

The first decades of the 21st century have fundamentally reshaped the operating environment of organisations. Digitalisation, platform competition, geopolitical uncertainty, climate-related pressures, labour market transformation and rapidly changing customer expectations have collectively increased the need for organisational responsiveness. In such conditions, traditional managerial models based on long planning cycles, rigid hierarchies and centralised control often struggle to cope with

volatility and complexity. Agile management emerged as one response to these pressures. The concept of agility originated in software development, where the limitations of linear project planning became increasingly visible in environments characterised by shifting requirements and fast technological change (Highsmith, 2009; Takeuchi & Nonaka, 1986). The publication of the Agile Manifesto in 2001 marked a symbolic turning point by articulating

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values centred on collaboration, adaptability, iterative delivery and responsiveness to change (Hohl et al., 2018). Early reviews of agile systems development also showed that, although the field had already produced a substantial body of research, it still required further conceptual consolidation and more cumulative empirical evidence (Abrahamsson et al., 2009).

Over time, however, agility has expanded far beyond software (Conforto et al., 2014; Rigby et al., 2016). It is now invoked in relation to innovation management, organisational design, strategic adaptation, public services, education and even wider discussions of institutional flexibility. Yet this diffusion has created conceptual ambiguity, partly because agility itself has been reconstructed as a broader capability of sensing and responding to change rather than as a fixed set of project methods (Conboy, 2009; Madsen, 2020). In both scholarly and practitioner discourse, agility is often used to refer simultaneously to project methods, leadership style, organisational culture, change capability and strategic responsiveness. The result is a fragmented field in which team-level practices are frequently conflated with organisation-wide transformation.

This creates at least three problems. First, it becomes difficult to distinguish between the adoption of agile rituals and the development of genuine organisational agility. Second, the relationship between agile methods and broader managerial logics—especially lean management, scaling frameworks and leadership systems—remains under-specified. Third, the transferability of agile principles across sectors, cultures and regional contexts is often assumed rather than critically examined. These issues are analytically important because agile operation is not costless or universally applicable. Furthermore, contemporary critiques highlight that agile operations are inherently resource-intensive. The demand for continuous feedback, rapid coordination, and constant cross-functional communication imposes a significant cognitive load on employees and requires substantial organisational slack (Cram & Newell, 2016; Moe et al., 2021). Consequently, sustaining organisational agility often proves more viable in well-resourced enterprises, whereas smaller or conventionally structured organisations may struggle with the administrative overhead of agile ceremonies and continuous adaptation. This resource dependency makes the problem of scaling agile practices not just a methodological issue, but a critical strategic challenge.

Agile systems rely on continuous feedback, rapid coordination, information transparency, cross-functional collaboration and a degree of organisational slack that may be easier to sustain in some sectors and resource-rich organisations than in others. Similarly, the move from team agility to organisational agility requires more than methodological adoption: it raises questions about governance, decision rights, trust, culture, leadership and institutional context.

This paper addresses these gaps by reinterpreting agile management as a multi-layered organisational capability. Rather than treating agility as a single methodology or a simple historical progression, the article develops a conceptual framework organised around three layers: (1) project-level agile methods, (2) lean–agile integration and scaling, and (3) total organisational agility. The argument is that these layers represent not only stages of diffusion but also qualitatively different organisational logics. Movement between them depends on enabling mechanisms and contextual conditions.

The article makes four main contributions. First, it clarifies the conceptual evolution of agile management from project methods to organisational capability. Second, it offers a more explicit and transparent review-based methodology than descriptive overviews of the field. Third, it critically examines the relationship between lean and agile rather than assuming automatic continuity between the two. Fourth, it extends the discussion by incorporating cultural trust, regional and spatial embeddedness, and AI-supported decision environments as important boundary conditions of agile transformation.

Beyond synthesising existing streams of literature, the proposed framework introduces a conceptual distinction between three qualitatively different organisational logics of agility. Existing studies frequently discuss project agility, scaling, and organisational agility as related manifestations of the same phenomenon. In contrast, this paper argues that these represent analytically distinct forms of organisational adaptation, characterised by different coordination mechanisms, governance requirements, leadership roles and sources of value creation. The originality of the framework therefore lies not merely in categorising existing knowledge, but in explaining the transformation mechanisms and boundary conditions through which organisations move from one form of agility to another.

The study is guided by the following research question: How has agile management evolved from a project-level method into a broader organisational capability, and under what organisational, cultural and contextual conditions can this evolution be sustained?

The paper proceeds as follows. Section 2 reviews the relevant literature on project agility, lean–agile integration, leadership and organisational agility. Section 3 explains the conceptual review methodology. Section 4 presents the three-layer framework and develops theoretical propositions. Section 5 discusses cultural, regional and sectoral contingencies, including the relevance of Central and Eastern European contexts. Section 6 examines practical implications and the role of AI-supported agility. The final section summarises the contribution, limitations and future research directions.

2. Literature review

2.1. *From software development to organisational discourse*

The roots of agile thinking are closely associated with the crisis of predictability in late 20th-century software development. Traditional waterfall-style models assumed that requirements could be known in advance, tasks could be sequentially specified, and project performance could be controlled through formal planning and documentation. In practice, however, software projects increasingly faced changing client expectations, technological uncertainty and rapid obsolescence.

In response, a range of lightweight methods emerged, including Scrum, Extreme Programming (XP) and Kanban-inspired process adaptations (Schwaber & Sutherland, 2020). These approaches emphasised iterative cycles, incremental delivery, customer feedback, cross-functional teamwork and learning through adjustment. The Agile Manifesto gave these developments a common language, but its significance should not be overstated as if it singularly created the field. Rather, it consolidated an already emerging critique of linear project management.

Subsequent frameworks translated these ideas into practical routines, roles and governance arrangements. Scrum established a widely adopted structure built around sprint cycles, product ownership and retrospective learning. XP stressed technical excellence, rapid feedback and close collaboration. Kanban introduced flow-oriented visualisation and work-in-progress limits. Collectively, these approaches helped define project-level agility and marked a decade-long development in which agile methodologies moved from isolated software practices toward a more mature research field concerned with technical, organisational and social dimensions of agile development (Dingsøyr et al., 2012; Gren et al., 2020; Recker et al., 2017).

At this stage, agility remained primarily a method for managing uncertainty within relatively bounded teams. Its main value lay in increasing responsiveness, reducing rework and strengthening user orientation. However, the broadening relevance of agility soon became evident. As more organisations sought to coordinate multiple teams, align agile work with portfolio priorities and extend iterative learning to business functions beyond IT, the concept expanded from project practice to organisational discourse.

The transition from project agility to broader organisational renewal became particularly visible through the emergence of cross-functional operating models. One of the most influential examples was the Spotify-inspired approach, which organised work around autonomous squads, tribes, chapters and guilds rather than traditional functional hierarchies (Kniberg & Ivarsson, 2012; Smite et al., 2019). Although often simplified in practitioner discourse, the Spotify model became significant because it reframed agility as a mechanism for cross-functional organisational learning and innovation rather than merely a project delivery methodology. This shift marked an important stage in the evolution of agile thinking, as attention moved from team-level efficiency toward enterprise-wide collaboration, knowledge sharing and organisational adaptability.

2.2. *The rise of organisational agility*

Organisational agility refers to a firm's capacity to sense changes, make timely decisions and reconfigure structures, processes and resources in response to evolving conditions (Denning, 2018, 2022; Rigby et al., 2020). In this wider interpretation, agility is not reducible to software methods. It becomes associated with strategic adaptability, flexible structures, horizontal collaboration, decentralised decision-making and learning-oriented culture.

This broader use partly reflects the growing instability of business environments and partly the diffusion of agile language across consultancy, leadership and transformation discourses. However, organisational agility should not be treated as a simple scaling-up of team practices. Team agility is concerned with local adaptability and short feedback loops. Organisational agility, by contrast, involves the alignment of strategy, governance, leadership, culture and cross-unit coordination.

A related stream of literature has developed around the concept of business agility, which extends organisational agility beyond operational responsiveness and emphasises the capacity of the entire enterprise to continuously sense, respond and adapt to changing market conditions (Brosseau et al., 2019; Denning, 2018). Business agility literature places greater emphasis on strategic renewal, customer-centric operating models and enterprise-wide adaptability than earlier project-oriented agile research. This perspective broadens the discussion from local team performance to the organisation's ability to reconfigure capabilities, business models and governance arrangements in dynamic environments.

The cultural implications of this transition deserve particular attention. At team level, Scrum is built around transparency, inspection and adaptation as its three foundational pillars (Schwaber & Sutherland, 2020). When agility expands to the organisational level, these principles are reinterpreted in broader cultural terms. Transparency becomes information openness across organisational boundaries rather than merely visibility within a team. Inspection evolves into organisational learning, reflection and evidence-based decision-making. Adaptation shifts from sprint-level adjustment to strategic and structural responsiveness. In this sense, organisational agility requires not only new structures and processes but also the

institutionalisation of agile values as elements of organisational culture.

This transformation is not automatic. Many organisations successfully implement agile routines while failing to embed the underlying values of trust, openness and continuous learning. Consequently, the scaling of agility should be understood not merely as a structural challenge but also as a cultural transformation process that affects organisational identity, behavioural norms and leadership expectations.

The move from one to the other requires a shift in the level of analysis. It also requires attention to tensions: local autonomy may conflict with strategic coherence; speed may undermine reflection; experimentation may clash with standardisation; and agile routines may be ritualised without substantive redistribution of decision rights. This is where much of the contemporary literature becomes divided. Some authors frame agility as a near-universal response to volatility, while others warn against “agile washing,” symbolic adoption and inflated managerial fashion (Baskerville et al., 2020; Madsen, 2020). This disagreement reflects a deeper theoretical divide within the literature. Proponents of organisational agility often portray agility as a superior organisational paradigm capable of increasing innovation, resilience and responsiveness across diverse sectors (Denning, 2018; Rigby et al., 2020). Critics, however, argue that many claims about agility remain normatively attractive but empirically underdeveloped. From this perspective, agility sometimes functions as a management fashion whose popularity exceeds the strength of the supporting evidence (Cram & Newell, 2016; Madsen, 2020). The debate therefore concerns not only implementation quality but also the extent to which organisational agility should be regarded as a universally desirable organisational model. A critical review therefore needs to distinguish between genuine organisational transformation and superficial methodological borrowing (Moe et al., 2021).

2.3.1. Scaling frameworks and the problem of organisational translation

As organisations attempted to expand agile practices beyond individual teams, a growing number of scaling frameworks appeared. SFA became one of the most influential, offering structured governance mechanisms, portfolio alignment and coordination routines for larger enterprises. Other models, such as LeSS and the Spotify-inspired model, similarly attempted to translate team-level agility into wider organisational settings, albeit with different levels of formalisation (Dikert et al., 2016; Smite et al., 2019).

These frameworks reveal an important transition in the agile field. They reflect the recognition that team methods alone cannot coordinate large, interdependent systems. At the same time, they raise a paradox: the more agility is scaled, the more it may require formal structures, routines and governance mechanisms that appear to reintroduce hierarchy and bureaucracy. This is one reason why the literature on scaled agility is often ambivalent. Some see these frameworks as necessary for enterprise coordination; others argue that they formalise agility to the point of diluting its original spirit. This disagreement highlights one of the central unresolved debates in the field. Supporters of scaling frameworks argue that large organisations cannot achieve strategic alignment without some degree of formal governance, portfolio coordination and standardisation. Critics respond that these same mechanisms often recreate the bureaucratic structures that agile methods originally sought to overcome. Consequently, the literature has yet to reach consensus on whether scaling frameworks represent the maturation of agility or its institutional domestication. More recent enterprise agility literature has expanded the debate beyond scaling frameworks themselves. Researchers increasingly distinguish between scaled agility and enterprise agility. Whereas scaling focuses on coordinating multiple agile teams, enterprise agility concerns the transformation of organisational strategy, governance, leadership systems and flow-oriented product operating models (Denning, 2018; Kersten, 2018). This distinction suggests that successful scaling does not automatically produce organisation-wide agility, a point that remains insufficiently recognised in many practitioner-oriented discussions. The key analytical lesson is that scaling is not a neutral extension. It is a translation process in which agile principles are reshaped by organisational size, sector, governance requirements and institutional constraints.

2.3.2 Agile governance and organisational redesign

As agile thinking expanded beyond software teams, a growing body of literature began to address the problem of agile governance. Early agile approaches often assumed relatively autonomous teams operating within limited organisational boundaries. However, large organisations require mechanisms for accountability, strategic alignment, risk management and resource allocation. Agile governance therefore emerged as an attempt to reconcile adaptive decision-making with organisational control (Luna et al., 2015).

This development also stimulated broader debates on organisational redesign. Scholars increasingly argue that achieving organisational agility requires structural transformation rather than merely adopting agile practices. Concepts such as networked organisations, dynamic capabilities, ambidextrous structures and adaptive operating models have become closely associated with the organisational agility literature (Doz & Kosonen, 2010; Teece et al., 2016). From this perspective, agility is not primarily a project management method but a redesign challenge involving authority structures, governance mechanisms and organisational architecture.

2.4. *Lean and agile: overlap, tension and conditional complementarity*

One of the most persistent claims in the literature is that agile management grew out of lean management, especially the Toyota Production System and its focus on value, waste reduction, continuous improvement and respect for people (Liker, 2004; Ohno, 1988; Womack & Jones, 2003). There is considerable truth in the observation that lean and agile share important concerns. Both reject unnecessary bureaucracy, emphasise customer value and rely on feedback-driven learning. Both also challenge rigid top-down control by giving greater importance to front-line knowledge and process visibility.

Yet the relationship is more complex than a straightforward historical or philosophical continuity. Lean and agile are not identical logics. Lean management is strongly associated with process reliability, standardisation, waste reduction and the disciplined design of efficient systems (Liker & Franz, 2011). Agile management places greater emphasis on iteration, adaptation, experimentation and responsiveness under uncertainty.

Lean seeks stability as a basis for improvement; agile accepts instability as a condition requiring flexible coordination. Lean often asks how a process can be improved and stabilised; agile often asks how an evolving solution can be continuously redefined in response to change. For this reason, the two approaches should be understood as conditionally complementary rather than inherently unified. They may reinforce one another where organisations need both disciplined value flows and adaptive responsiveness. This is especially visible in scaling frameworks, portfolio management and product development contexts. At the same time, tensions can emerge when standardisation reduces the room for experimentation or when perpetual adaptation erodes process reliability and role clarity. The challenge is therefore not to conflate lean and agile, but to specify the organisational conditions under which their combination becomes productive.

The literature remains divided on whether lean and agile should be interpreted as complementary or fundamentally distinct management philosophies. Some scholars view agile management as a natural extension of lean principles into knowledge-intensive environments, arguing that both approaches share a common emphasis on customer value and continuous improvement. Others contend that the underlying assumptions differ substantially: lean seeks to reduce variability through disciplined process control, whereas agile treats uncertainty and change as persistent conditions that require ongoing adaptation. The unresolved nature of this debate suggests that lean–agile integration should be treated as a contingent organisational choice rather than an established theoretical consensus.

The organisational implications of the lean–agile relationship extend beyond methodological differences. Lean-oriented organisations typically build capability through process discipline, operational stability and incremental improvement. Agile-oriented organisations build capability through experimentation, rapid learning and adaptive responsiveness. As a result, the integration of lean and agile often requires organisations to manage competing organisational demands simultaneously.

This creates a form of organisational ambidexterity. From the perspective of ambidextrous organisation theory, this means that firms must manage evolutionary improvement and revolutionary change simultaneously, rather than privileging either efficiency or innovation exclusively (Tushman & O'Reilly, 1996; O'Reilly & Tushman, 2013). The complementarity of lean and agile appears strongest under specific organisational conditions. Integration is particularly effective when organisations operate in environments that require both operational reliability and continuous adaptation, such as product development, digital transformation and innovation-intensive manufacturing. In such contexts, lean principles can provide process visibility, stable value flows and coordination mechanisms, while agile practices support experimentation, customer responsiveness and rapid learning.

By contrast, tensions are more likely to emerge when organisations attempt to maximise both standardisation and adaptability simultaneously without clarifying priorities. Highly regulated environments may require levels of procedural consistency that constrain experimentation, whereas highly dynamic environments may demand flexibility that exceeds the limits of lean process discipline. The challenge is therefore not merely technical but organisational: leaders must continuously negotiate the balance between efficiency and adaptability, exploitation and exploration, depending on contextual requirements (March, 1991; O'Reilly & Tushman, 2013).

Excessive emphasis on lean principles may strengthen efficiency but reduce adaptability. Excessive emphasis on agile principles may increase responsiveness but weaken reliability and coordination. The practical challenge is therefore not selecting one approach over the other, but designing organisational arrangements that balance exploitation and exploration, stability and adaptability, standardisation and experimentation.

2.5. *Leadership, psychological safety and agile coaching*

The literature on agile transformation increasingly highlights leadership as a central condition of success. Early agile discourse often focused on teams, ceremonies and delivery methods. More recent scholarship shows that without changes in leadership logic, agile initiatives tend to remain localised or symbolic. This is why servant leadership, shared leadership and facilitative leadership are frequently discussed in relation to agility.

Servant leadership is especially relevant because it shifts the leader's role from command-and-control supervision to enabling team capability, removing obstacles and supporting development (Greenleaf, 1977). Shared or distributed leadership extends this logic by recognising that decision-making authority and expertise are often dispersed across teams and functions (Pearce & Conger, 2003). In agile settings, leadership is less about unilateral direction and more about creating conditions for coordinated autonomy.

Psychological safety is another core dimension. Teams cannot experiment, speak up, challenge assumptions or learn from failure unless the organisational climate makes such behaviour legitimate (Edmondson, 1999, 2019). Thus, agility depends not only on process design but also on socio-relational conditions. Open communication, trust and tolerance for constructive error become essential.

At the same time, it is important to distinguish between general coaching literature (Whitmore, 2017) and agile coaching specifically (Adkins, 2010). Agile coaching is not simply a generic developmental conversation. It is embedded in agile practice, team learning, role clarification, iteration review, conflict mediation and transformation support. Similarly, the roles of line manager, Scrum Master, agile coach and senior leader should not be conflated. Organisation-wide agility requires not just better team facilitation, but leadership alignment across governance, structure and strategic direction.

Recent research has also increasingly discussed agile leadership as a distinct leadership paradigm rather than merely an application of servant leadership principles. Agile leadership emphasises adaptability, contextual decision-making, experimentation, distributed authority and the orchestration of organisational learning processes (Joiner, 2019). While servant leadership remains influential within agile environments, agile leadership literature suggests that leaders must simultaneously enable autonomy and maintain strategic coherence across increasingly complex organisational systems.

Viewed from a broader organisational perspective, leadership and coaching contribute to agility not simply by improving performance but by supporting human adaptability. Agile organisations depend on employees' capacity to learn continuously, reinterpret changing situations and modify behaviour in response to emerging challenges. This argument is also consistent with research on adaptive performance, which identifies employees' ability to respond to changing tasks, uncertainty, interpersonal demands and novel work situations as a distinct component of workplace effectiveness (Pulakos et al., 2000). This perspective reconnects agility with human development. Sustainable organisational agility requires behavioural flexibility, learning orientation, psychological resilience and the capacity to collaborate across functional boundaries. Consequently, leadership, coaching and psychological safety should be understood not as supporting elements of agile methods but as foundational conditions that enable agility to persist as an organisational capability over time.

2.6. *Critiques of agile management*

These concerns are consistent with the view that organisational agility is difficult to implement in practice because it requires not only structural flexibility but also leadership alignment, employee commitment, cultural readiness and the capacity to manage continuous change (Appelbaum et al., 2017). One critique focuses on symbolic adoption, where ceremonies and vocabulary are introduced without corresponding changes in power, accountability or culture. Another concerns the intensification of work. Continuous feedback, frequent delivery and perpetual adaptation may increase coordination pressure and emotional load, especially in under-resourced settings. A third critique points to conceptual inflation: when agility is used to describe almost any desirable organisational quality, it loses analytical precision.

There are also context-specific critiques. Agile methods were developed in environments with relatively high knowledge intensity, rapid iteration cycles and strong customer feedback mechanisms. Their transfer into highly regulated, infrastructure-heavy or public-sector contexts may require significant adaptation. Likewise, high-trust and low-trust environments may differ substantially in how easily decentralised decision-making can be institutionalised. These critiques do not invalidate agility as a concept, but they do require a more nuanced framework—one that takes boundary conditions seriously and avoids universalist claims.

A further unresolved issue concerns organisational performance outcomes. While many practitioner-oriented publications present agility as a source of superior competitiveness and innovation, empirical findings remain mixed. Some studies report improvements in responsiveness, customer satisfaction and collaboration, whereas others find implementation difficulties, employee fatigue and limited long-term performance effects. This inconsistency suggests that the relationship between agility and organisational success is likely contingent upon contextual variables rather than universally positive. Consequently, future research should move beyond advocacy-oriented accounts and examine more carefully the conditions under which agility creates or destroys value.

3. Methodology

3.1. *Research design*

This article uses a conceptual review design based on an integrative literature review. The aim is not to test a hypothesis empirically, but to synthesise fragmented streams of literature and develop a clearer conceptual interpretation of agile management as an organisational capability. An integrative review is appropriate when a field spans multiple subdomains—such as project management, leadership, organisational theory, lean systems and innovation studies—and when the objective is theory building rather than statistical aggregation.

3.2. *Search strategy and sources*

The literature selection followed a structured but iterative process. The systematic search was conducted using major academic databases, primarily Scopus, Web of Science, and EBSCOhost (Business Source Premier), to ensure high-quality, peer-reviewed coverage. Searches focused on the period from the early 2000s to the mid-2020s, while also including selected foundational works published earlier when they were essential to understanding the intellectual roots of agile and lean thinking. The main search terms included combinations of the following expressions: “agile management”, “organisational agility”, “business agility”, “agile leadership”, “lean agile”, “scaled agile”, “agile transformation”, “servant leadership and agility”, “psychological safety and agile teams”, “agile coaching”, “regional innovation and organisational adaptability”, and “AI and organisational agility”.

The review prioritised peer-reviewed journal articles and academically recognised books. In addition, a limited number of primary framework documents and historically relevant sources were retained where necessary to discuss the emergence of the field (for example, original manifesto-related sources or widely cited framework documents). Non-academic media sources were excluded from the core analytical argument and used, where at all, only as contextual illustrations rather than as evidence for theoretical claims.

3.3. *Inclusion and exclusion criteria*

Sources were included if they met at least one of the following conditions: They contributed directly to the conceptualisation of agile methods, organisational agility, lean–agile integration, agile leadership or scaling. They examined organisational, cultural or contextual conditions relevant to agile transformation. They addressed emerging developments such as AI-supported agility or governance-related implications. Sources were excluded when they were purely promotional, weakly referenced, duplicative, or unrelated to the organisational interpretation of agility. Practitioner documents were retained only where they represented influential primary artefacts in the development of the field and were not treated as substitutes for scholarly evidence.

3.4. *Analytical procedure*

The selected literature was analysed through thematic coding and conceptual comparison. Four analytical steps were followed. First, the literature was grouped according to level of analysis: project-level methods, scaling and portfolio coordination, organisational agility, and contextual contingencies. Second, recurring themes were identified across these clusters, including iteration, learning, value creation, decentralisation, leadership transformation, trust, standardisation and adaptation. Third, tensions between themes were examined, especially in relation to lean versus agile logic, autonomy versus coordination, and symbolic versus substantive transformation. Fourth, the insights were synthesised into a three-layer conceptual model that explains the evolution of agile management and the conditions of movement between levels.

Importantly, the synthesis was not intended merely to aggregate existing concepts. The analytical objective was to identify discontinuities between levels of agility and to conceptualise the mechanisms that enable or constrain transitions across them. This resulted in a framework that treats organisational agility as an emergent capability with qualitatively different properties at each layer, rather than as a simple extension of project-level agile practices.

3.5. *Methodological limitations*

This study has several limitations. It is an interpretive conceptual review rather than a systematic review or meta-analysis, and therefore does not claim exhaustive coverage of all publications on agility. The field itself is interdisciplinary and partially shaped by practitioner discourse, which makes boundary drawing difficult. The review also focuses mainly on English-language scholarship and selected internationally visible debates. These limitations are acknowledged explicitly because the aim of the article is conceptual clarification, not comprehensive bibliometric mapping.

4. A three-layer conceptual framework of agile evolution

The conceptual novelty of the framework lies in its treatment of agile evolution as a sequence of shifts in organisational logic rather than as a linear diffusion of practices. Existing literature often assumes continuity between team-level agility, scaled agility and organisational agility. The present model challenges this assumption by proposing that each layer operates according to different principles of coordination, authority distribution, learning and adaptation. Consequently, movement between layers requires structural and governance transformation, not merely the wider adoption of agile tools or routines. The three layers should not be understood merely as differences in scale or organisational size. Rather, they represent distinct units of analysis and different organisational logics. Layer 1 focuses on team-level adaptation within relatively bounded project environments. Layer 2 addresses the coordination of multiple teams and value streams across organisational interfaces. Layer 3 concerns the organisation as a whole and its capacity to reconfigure strategy, governance, culture and resources in response to environmental change.

Consequently, the defining distinction between the layers is not the number of agile teams involved but the dominant mechanism through which adaptation is achieved. In Layer 1, adaptation occurs primarily through iterative team learning. In Layer 2, adaptation depends on cross-functional coordination and system integration. In Layer 3, adaptation becomes a strategic and organisational capability embedded in governance structures, leadership systems and organisational culture.

4.1. *Layer 1: Project-level agility*

The first layer refers to agile methods as project- or team-level practices. Its defining features include iterative cycles, rapid feedback, incremental delivery, adaptive planning, user involvement and self-organising teams. Scrum, XP and Kanban are typical examples. At this level, agility improves local responsiveness and learning under conditions of uncertainty. However, it remains bounded by the wider organisational system in which teams operate.

Project-level agility can generate clear advantages—faster learning, reduced mismatch between requirements and outputs, stronger customer orientation and increased team ownership. Yet it also has limits. When budgeting, HR systems, governance routines or decision rights remain fully aligned with traditional hierarchical models, agile teams may become islands of flexibility within otherwise rigid organisations.

4.2. *Layer 2: Lean–agile integration and scaling*

The second layer emerges when organisations attempt to coordinate multiple agile teams and align adaptive work with broader value streams, portfolio priorities and cross-functional dependencies. This is where lean–agile integration becomes relevant. Lean contributes process visibility, system thinking, waste reduction and flow orientation; agile contributes iteration, experimentation and customer-centred adaptation.

At this level, agility becomes an organisational coordination problem rather than only a team practice. Scaling frameworks, product operating models and portfolio structures attempt to solve this problem. However, this layer remains unstable if organisations assume that scaling is merely a technical issue. In reality, scaling introduces tensions between local autonomy and enterprise alignment, between flexibility and standardisation, and between speed and governance.

4.3. *Layer 3: Total organisational agility*

The third layer refers to agility as an organisation-wide capability embedded in culture, leadership, structure and decision architecture. Here, agile management is no longer a set of methods but a broader organisational logic. Its defining characteristics include distributed yet accountable decision-making, leadership as enabling and coordinating practice, psychological safety, continuous learning, strategic adaptability, horizontal collaboration and dynamic resource reconfiguration.

Total organisational agility does not eliminate structure; rather, it redesigns structure to support adaptive coordination. It also does not imply permanent fluidity. Sustainable agility depends on balancing flexibility with coherence, autonomy

with accountability, and experimentation with strategic direction. For this reason, the third layer should not be equated with the mere spread of agile vocabulary across the organisation. It represents a deeper transformation in governance and organisational design.

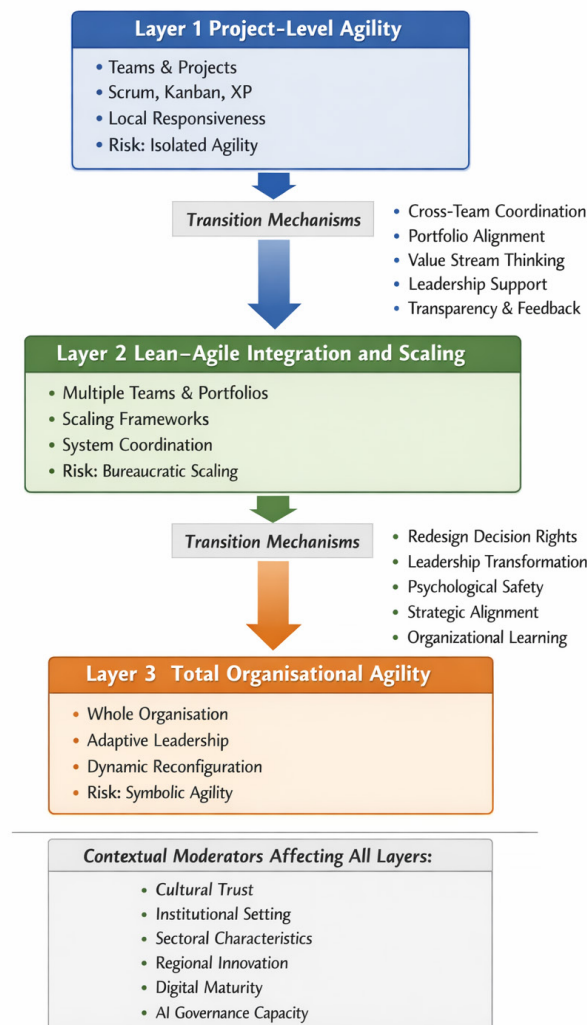


Figure 1: Three-layer conceptual model of agile evolution (made by the authors)

4.4. *Mechanisms of movement between layers*

Analytically, organisations can therefore occupy different positions within the framework regardless of the number of agile teams they operate. An organisation with hundreds of agile teams may still remain at Layer 2 if governance and strategy continue to operate according to traditional command-and-control principles. Conversely, an organisation with fewer agile teams may demonstrate characteristics of Layer 3 when adaptive decision-making, learning and resource reconfiguration become organisation-wide capabilities.

Movement from Layer 1 to Layer 2 and from Layer 2 to Layer 3 is enabled by several mechanisms: leadership transformation from control to enabling coordination; redesign of decision rights and accountability structures; integration of learning routines across teams and functions; development of trust and psychological safety; alignment of strategy, portfolios and delivery systems; organisational maturity in communication, transparency and feedback handling. Conversely, movement is blocked when agile practices are ritualised, when hierarchy remains untouched, when scaling becomes over-bureaucratised, or when cultural and institutional conditions undermine decentralised coordination.

This emphasis on transition mechanisms represents a theoretical extension of the organisational agility literature. While previous studies have primarily focused on describing characteristics of agile organisations, the present framework seeks to explain why some organisations remain trapped at lower levels of agility while others develop organisation-wide adaptive

capability. The model therefore contributes an explanatory perspective that links agility practices, governance arrangements and contextual contingencies within a single analytical structure.

Movement between layers should not be interpreted as a gradual accumulation of agile practices. Rather, transitions occur when the dominant locus of adaptation shifts. The transition from Layer 1 to Layer 2 becomes visible when organisations move beyond isolated team optimisation and establish mechanisms for portfolio alignment, value-stream coordination and cross-functional integration. The transition from Layer 2 to Layer 3 occurs when adaptive capability becomes embedded in organisational governance, leadership practices and strategic decision-making rather than remaining confined to delivery structures.

Analytically, organisations can therefore occupy different positions within the framework regardless of the number of agile teams they operate. An organisation with hundreds of agile teams may still remain at Layer 2 if governance and strategy continue to operate according to traditional command-and-control principles. Conversely, an organisation with fewer agile teams may demonstrate characteristics of Layer 3 when adaptive decision-making, learning and resource reconfiguration become organisation-wide capabilities.

Importantly, movement between layers is not determined solely by internal organisational factors. The review indicates that regional innovation environments, institutional conditions, labour-market characteristics and AI governance capabilities function as contextual moderators affecting all three layers simultaneously. These factors do not operate as external additions to agility but shape the organisational conditions under which adaptive capability can emerge, scale and be sustained.

4.4.1 Analytical indicators of layer membership

Although the framework is conceptual, the three layers may be recognised empirically through different organisational indicators. Layer 1 is characterised by team-level agile routines such as sprint planning, retrospectives, iterative delivery and customer feedback mechanisms. Layer 2 is reflected in portfolio coordination structures, value-stream management, scaling frameworks and cross-functional governance arrangements. Layer 3 is indicated by distributed decision rights, adaptive resource allocation, organisation-wide learning mechanisms, strategic responsiveness and leadership systems designed to support continuous adaptation.

Future empirical studies could operationalise these indicators to examine whether organisations occupy distinct positions within the proposed framework and to identify the conditions under which movement between layers occurs.

4.5. Theoretical propositions

The propositions presented below are derived directly from the major themes and tensions identified throughout the review. The literature consistently highlights that agile transformation involves more than the adoption of project-level methods; it requires changes in governance, leadership, culture and organisational design. Similarly, the review revealed persistent debates regarding lean–agile integration, the role of psychological safety, contextual variation and the governance challenges associated with AI-supported decision-making. The propositions therefore represent theoretically grounded expectations emerging from the synthesis rather than independent normative claims.

The review repeatedly demonstrated that agile teams may remain isolated islands of flexibility when organisational governance, leadership systems and decision structures remain unchanged. The distinction developed between Layer 1 and Layer 3 therefore suggests the following proposition:

P1. The adoption of project-level agile methods does not by itself produce organisation-wide agility unless decision rights, governance routines and leadership practices are also transformed.

The discussion of lean–agile integration highlighted both complementarities and tensions. The review suggested that standardisation contributes positively only when it supports learning, coordination and value flow without suppressing experimentation and responsiveness. This observation leads to the following proposition:

P2. Movement from Layer 2 (lean–agile integration and scaling) to Layer 3 (total organisational agility) is positively associated with the organisation's ability to balance coordination requirements with adaptive decision-making.

The literature on leadership, psychological safety, contextual embeddedness and AI governance consistently identified these factors as enabling or constraining conditions of organisational agility. Rather than functioning as peripheral influences, they appeared throughout the review as recurring mechanisms shaping the success or failure of agile transformation. Accordingly, the following propositions extend the framework toward contextual and governance-related explanations of agility.

P3. The success of agile transformation is positively associated with organisational conditions of psychological safety, transparency and leadership support.

P4. Cultural trust and institutional context moderate the transferability of agile principles across organisations, sectors and regions.

P5. AI-supported decision systems can enhance organisational agility, but only when governance mechanisms ensure accountability, transparency, data integrity and ethical oversight.

5. Cultural, sectoral and regional contingencies

5.1. *Why context matters*

A major weakness in some agile literature is the implicit assumption that agile principles travel easily across sectors and societies. In reality, organisational practices are embedded in institutional, cultural and spatial contexts. Trust, hierarchy, labour market norms, professional cultures, regulatory pressures and regional innovation systems all shape the conditions under which agility can emerge.

High-trust contexts may find it easier to institutionalise decentralised decision-making because actors more readily accept shared responsibility, information transparency and cooperative coordination. In lower-trust settings, by contrast, organisations may struggle to sustain the balance between autonomy and accountability. This does not mean that agility is impossible in such environments, but it does suggest that implementation mechanisms must differ. Formal coordination, clearer role definition and staged delegation may be more important where trust cannot be assumed.

5.2. *Industry differences*

Industry conditions also influence the viability of agile transformation. In software and digital product environments, short feedback loops and rapid iteration are relatively natural. In manufacturing, healthcare, education, energy, public administration or highly regulated sectors, agile principles may still be useful, but they must be adapted to longer cycle times, compliance requirements, infrastructural constraints or professional autonomy structures.

Thus, agility should be understood not as a universal template, but as a family of adaptive principles interpreted through sector-specific conditions. The more tightly coupled, capital-intensive or regulated a field is, the greater the need to balance agile responsiveness with procedural reliability and institutional accountability.

5.3. *Spatial and regional embeddedness*

To align the discussion with broader socio-spatial perspectives, it is important to recognise that agile transformation is also linked to regional and territorial factors. Organisations do not adapt in a vacuum; they operate within regional innovation systems, labour market structures, educational ecosystems and infrastructural environments. Regions with dense knowledge networks, strong university–industry collaboration, digital infrastructure and innovation-oriented institutions may provide more favourable conditions for agile experimentation and learning (Autio et al., 2018; Barabási, 2003, 2018).

By contrast, peripheral or institutionally rigid environments may constrain access to talent, cross-sector interaction and adaptive organisational redesign. This regional lens broadens the interpretation of agility from an internal management issue to a phenomenon connected with place-based capabilities. Organisational adaptability may therefore depend not only on internal culture and leadership, but also on the spatial configuration of knowledge, institutions and networks surrounding the firm.

5.4. *Relevance for Central and Eastern Europe and the Hungarian context*

The applicability of agile principles in Central and Eastern European contexts deserves explicit reflection. Organisations in these environments often operate under mixed institutional conditions: exposure to global managerial models coexists with legacies of hierarchical coordination, uneven trust patterns and sectoral dualism between internationally integrated firms and domestically embedded organisations (Makó et al., 2020; Szalavetz, 2020).

In such settings, the transfer of agile models may be shaped by both aspiration and friction. For Hungary and the wider region, this suggests that agile transformation should not be framed as simple methodological import. Its success may depend on leadership maturity, organisational learning capacity, sectoral context and the degree to which local institutional norms support participation, accountability and transparent communication. This makes the regional application of agile management an important field for future comparative research.

6. Discussion and implications

6.1. *Theoretical synthesis*

The review suggests that the evolution of agile management is best understood not as a linear spread of a single method, but as a multi-level reconfiguration of organisational logic. Project methods provided the initial vocabulary of iteration and adaptability. Lean–agile integration then introduced system-level concerns related to flow, value streams and coordination. Finally, organisation-wide agility emerged as a broader capability involving leadership, culture, governance and strategic adaptation.

The main theoretical implication is that agility becomes qualitatively different at each layer. Accordingly, the contribution of the framework is not limited to providing a more structured classification of agile concepts. Its primary theoretical value is the reconceptualisation of organisational agility as a multi-level capability characterised by threshold transitions between distinct organisational logics. This perspective helps explain persistent failures of agile transformation that cannot be understood through project-level theories alone and provides a basis for future empirical research on the conditions under which such transitions occur.

Team agility is not simply a smaller version of organisational agility. The two are related, but they involve different constraints, mechanisms and outcomes. This distinction helps explain why many agile initiatives remain partial: they change routines without changing the organisational architecture that surrounds them.

The central position advanced in this paper is that organisational agility should not be understood as the large-scale application of agile methods. The review instead suggests that agility changes its organisational meaning as it moves across levels of analysis. Project agility, scaled agility and organisation-wide agility represent different organisational logics rather than different implementation intensities. Consequently, many debates in the literature stem from the tendency to treat fundamentally different phenomena as if they belonged to the same conceptual category.

Viewed collectively, these debates indicate that organisational agility remains a contested concept rather than a settled theoretical construct. The literature reveals persistent disagreements regarding the relationship between agility and lean management, the legitimacy of scaling frameworks, the universality of agile principles and the actual performance consequences of agile transformation. The present review does not seek to eliminate these tensions; instead, it incorporates them into the proposed framework by treating them as boundary conditions that shape the evolution of agility across organisational contexts.

The broader literature on business agility, agile governance and enterprise transformation further supports the argument that organisational agility should be interpreted as a multi-level organisational capability. These streams collectively suggest that sustainable agility depends not only on team practices but also on governance arrangements, leadership systems, organisational architecture and strategic adaptability. Incorporating these perspectives helps position the proposed framework within the wider organisational agility literature rather than solely within the agile methods tradition.

6.2. *Contradictions and tensions in agile transformation*

The three-layer framework provides a way of interpreting several persistent tensions in the agility literature. Debates concerning scaling frameworks, lean–agile integration, leadership, governance and organisational culture often appear unresolved because they frequently refer to different layers of agility simultaneously. The framework suggests that many apparent contradictions are not necessarily theoretical inconsistencies but manifestations of different organisational logics operating at different levels.

The analysis also reveals several tensions. First, the more agility is scaled, the greater the need for formal alignment, which can undermine the flexibility that scaling is meant to support. Second, lean and agile can be mutually reinforcing, but they can also conflict when standardisation and experimentation pull in different directions. Third, cultural narratives of empowerment may coexist with managerial practices that leave decision rights unchanged. This is one of the roots of agile washing.

Another tension concerns time. Agile discourse often celebrates speed, but sustainable adaptation also requires reflection, learning and strategic coherence. Organisations that interpret agility as permanent acceleration may create volatility rather than resilience.

6.3. *Practical implications*

The findings have several practical implications for organisations and leaders. First, organisations should avoid treating agile transformation as a toolkit implementation project. Without changes in governance, incentives, communication routines and leadership roles, the likely result is procedural imitation rather than real agility. Second, leaders need to move beyond symbolic endorsement. They must clarify where decisions should be decentralised, how accountability will be maintained and how teams can access timely information. In this sense, agile leadership is not anti-management; it is a redefinition of management around enabling coordination and learning. Third, organisations should evaluate whether lean and agile are being combined thoughtfully. Lean can stabilise value flows and make work visible, but excessive standardisation can suppress experimentation. The goal should be complementarity, not conceptual fusion. Fourth, organisations should assess contextual readiness. Sectoral regulation, cultural trust, regional labour market conditions and institutional environment all influence the form that agile transformation can realistically take.

6.4. *AI-supported agility: opportunities, risks and governance*

The growing role of artificial intelligence introduces a new phase in the discussion of organisational agility (Atienza-Barba et al., 2024). AI tools may support forecasting, prioritisation, pattern recognition, workflow optimisation, customer insight generation and faster decision support. In principle, this can strengthen responsiveness and improve the sensing dimension of organisational agility. Within the three-layer framework, AI primarily affects the mechanisms through which organisations sense, interpret and respond to environmental change. Its influence is therefore most visible at Layer 3, where adaptive capability depends on organisation-wide decision architectures. However, AI may also affect Layer 2 through coordination and prioritisation mechanisms, demonstrating that technological governance increasingly becomes part of organisational agility itself rather than a separate technological concern.

However, AI-supported agility also introduces serious risks. Algorithmic recommendations may be opaque, biased or poorly aligned with organisational values (Berente et al., 2021; Kellogg et al., 2020). Heavy reliance on automated prioritisation can weaken human judgment and responsibility. Data-intensive agility raises privacy, compliance and cybersecurity concerns. In addition, the use of AI in performance monitoring or workflow coordination may intensify work or reduce employee trust if implemented without transparency. For these reasons, AI should be treated as an enabler of agility only under robust governance conditions. Human oversight, explainability, data quality control, ethical review and clear responsibility structures are necessary if AI is to contribute to adaptive management rather than undermine it.

6.5. *Limitations and future research*

This article is conceptual and therefore limited in empirical generalisability. Future research could test the propositions developed here through comparative case studies, survey research or mixed-methods analysis. In particular, more evidence is needed on how agile transformation unfolds across different regions, levels of institutional trust and industry settings. Comparative work on Central and Eastern European contexts would be especially valuable. Future studies should also examine the interplay between AI governance and organisational agility, as well as the conditions under which scaling frameworks support or constrain adaptive capability.

7. **Conclusion**

Agile management has evolved far beyond its origins in software development. What began as a project-level response to uncertainty has gradually become a broader conversation about organisational responsiveness, leadership, learning and strategic adaptability. Yet this evolution should not be interpreted as a simple or universal progression.

This paper argued that agile management is best understood through a three-layer framework that represents three distinct organisational logics rather than three successive implementation stages. The principal theoretical contribution is the identification of transition mechanisms and contextual boundary conditions that determine whether organisations can move from local agile practices to organisation-wide adaptive capability.

The paper also showed that lean and agile should not be collapsed into a single philosophy; their relationship is productive but conditional. Similarly, the transfer of agile principles across sectors and regions requires sensitivity to institutional and spatial embeddedness.

The central conclusion is that organisational agility is not a label, a ritual set or a fashionable synonym for change. It is a context-dependent capability that requires coherent alignment between methods, leadership, culture, structure and decision architecture. In the coming years, this challenge will become even more complex as AI-supported systems enter organisational decision processes. The future of agile management will therefore depend not only on speed and flexibility, but on the ability to combine adaptation with trust, ethics, accountability and contextual intelligence.

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