

AGILE DECISION-MAKING IN ORGANIZATIONS: A QUALITATIVE STUDY OF HYBRID RATIONAL AND NATURALISTIC PROCESSES

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Abstract

Organizations operating in volatile, uncertain, complex, and ambiguous (VUCA) environments face mounting pressure to abandon slow, hierarchically anchored decision processes in favour of more responsive approaches. Despite extensive scholarly attention to agile methods within software development, the transfer of agile decision making principles to broader organizational and consulting contexts remains theoretically underdeveloped. This study addresses that gap by investigating how agile decision making is enacted in practice across diverse sectors, comparing the explanatory utility of Rational Decision Making (RDM) and Naturalistic Decision Making (NDM) frameworks. A qualitative exploratory design was adopted, employing semi structured interviews with 50 purposively selected professionals including senior managers, organizational leaders, project leads, and management consultants drawn from technology, manufacturing, financial services, healthcare, and public sectors. Data were analysed using the six phase thematic analysis procedure of Braun and Clarke (2006). Five overarching themes emerged: contextual intelligence, collaborative decision architecture, information transparency, iterative adaptation, and agile leadership enablement. Findings indicate that neither pure RDM nor pure NDM fully captures contemporary organizational decision practice; instead, participants consistently employed a hybrid approach combining data driven reasoning with experience based intuition within iterative feedback structures. These findings are theoretically integrated into the AGILE DECIDE framework, a novel conceptual model linking leadership commitment, collaborative environments, information transparency, and learning loops to decision efficacy. The study contributes to organizational behavior and management theory by providing a cross sector account of agile decision making beyond its software origins, offering actionable guidance for practitioners and consultants.



Introduction

The capacity to make timely, well informed decisions under conditions of uncertainty has become a defining competency for contemporary organizations. Accelerated technological change, geopolitical volatility, and shifting market dynamics have collectively rendered traditional decision making frameworks premised on stability, comprehensive information, and rational optimization insufficient for the demands of a VUCA world (Bennett & Lemoine, 2014). In this context, agile principles, originally conceived within software engineering to manage iterative development under uncertainty (Beck et al., 2001), have attracted growing scholarly and practitioner interest as potential templates for organizational decision making more broadly.

Classical models of rational decision-making (RDM), grounded in the normative tradition of March and Simon (1958), posit that decision-makers survey all available alternatives, evaluate outcomes against clearly defined criteria, and select the utility-maximizing option. While analytically tractable, this model has long been challenged as psychologically unrealistic and operationally costly in dynamic environments (Kahneman, 2011). Naturalistic decision-making (NDM), by contrast, focuses on how experienced practitioners actually decide under time pressure and uncertainty, emphasizing pattern recognition, situational awareness, and experience-based heuristics (Klein, 1998). Each tradition illuminates important aspects of organizational decision behaviour; however, neither framework fully accounts for the structured yet adaptive processes observed in agile-oriented organizations.

A growing body of literature has examined agile leadership (Joiner, 2019), organizational agility (Teece et al., 2016), and the integration of agile methods in non-software contexts (Rigby et al., 2016); yet empirical investigation of how agile decision making principles manifest in practice across varied organizational settings remains sparse. Specifically, there is limited qualitative evidence examining how managers and consultants synthesize rational analysis and experiential judgment within agile frameworks, and how organizational enabling conditions such as leadership support, information transparency, and collaborative structures shape decision quality



and adaptability. Consistent with prior research, leadership commitment, governance structures, and management support emerge as critical enablers of organizational effectiveness and decision outcomes (Haider Kakar et al., 2025c).

This study addresses that gap. The following research questions guide the inquiry:

RQ1: How do organizational professionals and consultants describe their decision-making processes in dynamic, uncertainty-laden environments?

RQ2: To what extent do RDM and NDM frameworks account for observed agile decision-making practices?

RQ3: What organizational enabling conditions facilitate effective agile decision-making beyond the software sector?

The study makes three contributions. First, it extends agile decision theory beyond its software-industry origins by providing cross-sector empirical evidence. Second, it proposes the AGILE-DECIDE framework, integrating leadership, collaboration, information, and learning constructs into a cohesive model of agile decision efficacy. Third, it offers practical guidance for managers and consultants seeking to institutionalize agile decision practices within their organizations.

2. Literature Review

2.1 The Limits of Traditional Decision-Making Models

Normative decision theory, rooted in expected utility maximization (von Neumann & Morgenstern, 1944), prescribes optimal decision procedures under conditions of well-defined alternatives and known probabilities. Simon's (1955) concept of bounded rationality provided an important corrective, acknowledging that cognitive constraints lead decision makers to 'satisfice' accepting the first sufficiently good option rather than exhaustively optimizing. Subsequent behavioral perspectives, including prospect theory (Kahneman & Tversky, 1979) and dual process theory (Kahneman, 2011), further documented systematic departures from rational models, attributing them to cognitive biases, emotional influences, and heuristic processing. In

organizational contexts, March (1994) highlighted how political dynamics, ambiguous goals, and loosely coupled systems further confound rational optimization. Collectively, these critiques established that RDM, while normatively powerful, offers a limited descriptive account of how decisions are actually reached in complex organizations.

2.2 Naturalistic Decision-Making

Naturalistic decision-making (NDM) emerged in the 1980s as an empirically grounded alternative, investigating decision behaviour in real-world, high-stakes settings such as military command, firefighting, and emergency medicine (Klein et al., 1993). Klein's (1998) Recognition-Primed Decision (RPD) model is the most widely cited NDM framework, positing that experienced practitioners recognize situational patterns that cue memorized action scripts, bypassing formal option comparison. The NDM tradition thus foregrounds expertise, situational awareness, and time-pressured judgment (Lipshitz et al., 2001). More recent extensions have applied NDM to organizational management (Ployhart & Moliterno, 2011), project management (Kutsch & Hall, 2010), and strategic decision-making (Dane & Pratt, 2007). However, NDM has been criticized for insufficient attention to collective and technology-mediated decision processes prevalent in contemporary organizations (Mosier & Fischer, 2010).

2.3 Organizational Agility and Agile Decision-Making

Organizational agility defined as the capacity to sense environmental changes and respond rapidly and flexibly (Teece et al., 2016) has been linked to sustained competitive advantage in turbulent markets. Doz and Kosonen (2010) distinguish between strategic agility, operational agility, and resource fluidity, identifying rapid collective commitment to decisions as central to all three. Rigby et al. (2016) demonstrated that agile methods, when appropriately adapted, can improve decision speed, innovation quality, and employee engagement in non-software contexts including retail, healthcare, and financial services. Evidence from project based and SME contexts further indicates that agile methodologies, when combined with strong management support, significantly improve coordination, innovation, and decision effectiveness (Haider Kakar et al., 2025a). Conceptually, Holbeche (2018)

argues that agile organizations are characterized by distributed decision authority, a bias for action over planning, and the institutionalization of feedback loops attributes that align with neither pure RDM nor pure NDM.

Empirical research on agile decision-making outside software is accumulating. Moe et al. (2021) found that self-organizing agile teams exhibit emergent, collaborative decision patterns that challenge hierarchical authority structures. Dikert et al. (2016) identified leadership support and organizational culture as critical enablers of successful agile adoption. Appelbaum et al. (2017) linked agile decision processes to enhanced change management outcomes in financial services firms. Stoica et al. (2019) confirmed that iterative decision cycles improve project outcomes across diverse industries.

2.4 Agile Leadership and Enabling Conditions

Leadership plays a pivotal role in shaping the conditions under which agile decision making can flourish. Joiner (2019) identifies agile leadership as the capacity to hold complexity, act decisively under ambiguity, and cultivate self-organizing teams a profile distinct from both transactional and transformational leadership archetypes. In agile organizational contexts, leadership approaches such as servant leadership have been shown to enhance collaboration, trust, and team-level innovation, thereby strengthening decision-making effectiveness (Haider Kakar et al., 2025b). Psychological safety defined as the shared belief that interpersonal risk taking will not be punished (Edmondson, 1999) has been identified as a prerequisite for the candid information sharing and constructive dissent necessary for high quality collaborative decisions. Ancona et al. (2019) further highlight the importance of distributed sense making, wherein diverse organizational members collectively interpret environmental signals and generate decision relevant insights. Correspondingly, information quality and transparency have been shown to moderate the relationship between agile practices and decision efficacy (Patel et al., 2020).

2.5 Decision-Making Under Uncertainty

The literature on decision making under uncertainty converges on several key insights relevant to this study. First, uncertainty cannot be eliminated; it must be managed through adaptive strategies (Walker et al., 2013). Second,

scenario planning and iterative learning provide organizational mechanisms for reducing uncertainty's paralyzing effects (Chermack, 2011). Third, ambidexterity, the capacity to simultaneously exploit existing capabilities while exploring new possibilities, has been associated with superior decision outcomes under volatile conditions (O'Reilly and Tushman, 2013). More recently, Ponomarev et al. (2022) have linked machine learning and data analytics to enhanced decision support in uncertain environments, though they caution that algorithmic tools amplify rather than replace human judgment. Taken together, this body of literature suggests that effective organizational decision making under uncertainty requires a dynamic integration of analytical rigor, experiential wisdom, collaborative structures, and adaptive learning, precisely the configuration this study seeks to investigate empirically.

2.6 Research Gap

Despite the substantial body of literature on decision-making and organizational agility, several critical theoretical and empirical gaps remain that limit a comprehensive understanding of how decisions are made in contemporary organizational environments.

First, existing research has predominantly examined rational decision-making (RDM) and naturalistic decision-making (NDM) as distinct and often competing paradigms. RDM emphasizes systematic analysis, optimization, and information completeness (Simon, 1955), whereas NDM focuses on intuition, experience, and context-driven judgment under time pressure (Klein, 1998). While both perspectives offer valuable insights, the literature lacks integrative empirical studies that examine how these approaches coexist and interact within real organizational settings. Consequently, there is limited understanding of how decision-makers dynamically combine analytical reasoning with experiential judgment in practice.

Second, although the concept of organizational agility has received increasing scholarly attention (Teece et al., 2016; Rigby et al., 2016), much of the empirical research remains concentrated within software development and IT environments. This narrow focus restricts the generalizability of agile principles to broader organizational contexts such as manufacturing,

healthcare, financial services, and public sector institutions. There is a clear need for cross-sector empirical investigation to understand how agile decision-making manifests beyond its original domain.

Third, prior studies have insufficiently explored the organizational enabling conditions that shape decision-making effectiveness. While factors such as leadership, collaboration, and information systems have been individually examined, there is a lack of integrative frameworks that explain how these elements interact to facilitate or constrain decision-making in complex environments. In particular, the combined role of leadership commitment, collaborative structures, information transparency, and feedback mechanisms remains under-theorized and under-empirically validated.

Fourth, existing literature provides limited insight into the processual and iterative nature of decision-making in dynamic and uncertain environments. Traditional models often conceptualize decision-making as a linear or episodic process, whereas emerging evidence suggests that contemporary organizations rely on iterative, feedback-driven decision cycles. However, this perspective has not been sufficiently integrated into mainstream decision-making theory.

Finally, there is a notable absence of comprehensive, empirically grounded frameworks that synthesize rational, intuitive, and agile perspectives into a unified model of decision-making. This gap constrains both theoretical advancement and practical application, particularly for managers and consultants seeking actionable guidance in volatile and uncertain contexts.

In response to these gaps, the present study develops and empirically grounds the AGILE-DECIDE framework, which integrates rational, naturalistic, and agile decision-making perspectives within a cohesive conceptual model. By drawing on qualitative evidence from multiple sectors, this study contributes to a more holistic understanding of decision-making processes and the organizational conditions that enable effective, adaptive decision-making.

This limitation is particularly pronounced in developing economies, where SMEs face additional technological and structural constraints that further



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complicate decision-making processes and organizational adaptability (Kandhro 2026).

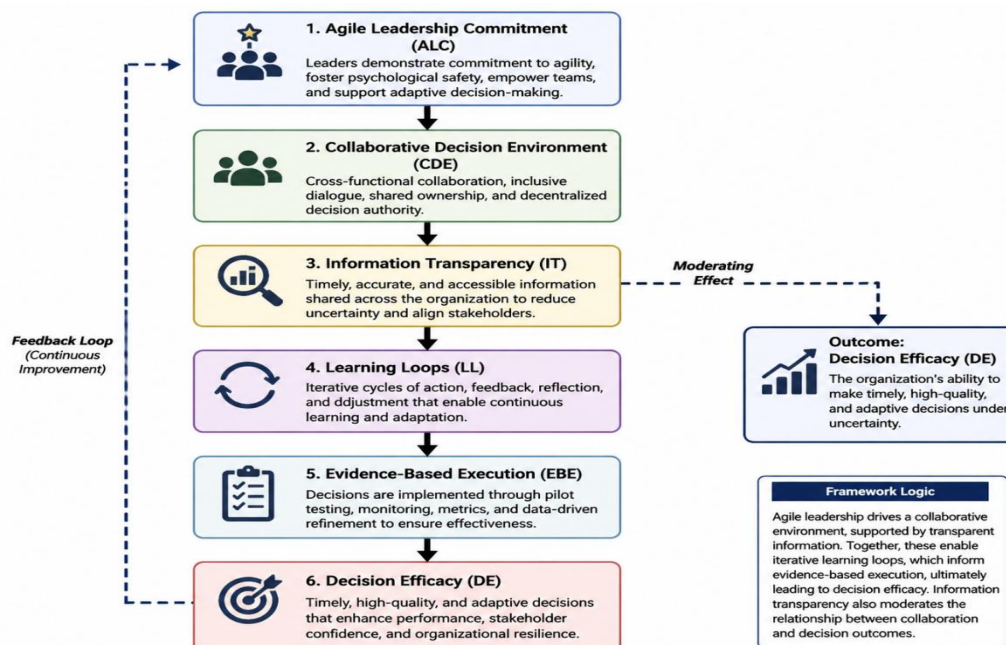
3. Conceptual Framework

This study proposes the AGILE-DECIDE framework as an integrative model of agile decision-making. The framework synthesizes insights from rational decision-making, naturalistic decision-making, and empirical findings from this study to explain how organizational conditions enable effective decision processes.

As illustrated in Figure 1, Agile Leadership Commitment (ALC) serves as the foundational driver that shapes a collaborative decision environment. Information Transparency (IT) enhances decision quality and moderates the relationship between collaboration and outcomes. Learning Loops (LL) and Evidence-Based Execution (EBE) operationalize iterative and adaptive decision processes, ultimately leading to Decision Efficacy (DE).

(LL) and Evidence-Based Execution (EBE) operationalize iterative and adaptive decision processes, ultimately leading to Decision Efficacy (DE).

Figure 1. AGILE-DECIDE Framework of Agile Decision-Making





Research Methodology

3.1 Research Design

This study adopts a qualitative exploratory research design, consistent with the epistemological stance of interpretivism (Creswell & Poth, 2018). A qualitative approach was selected because the research questions seek to understand how professionals make sense of and enact decision making processes an inquiry into meaning, context, and lived experience that cannot be reduced to numerical measurement. The exploratory orientation is appropriate given the relative novelty of agile decision making frameworks in non software organizational contexts.

3.2 Research Approach: Thematic Analysis

Data were analyzed using the reflexive thematic analysis framework developed by Braun and Clarke (2006, 2019). This approach is well-suited to qualitative organizational research as it provides a systematic yet flexible procedure for identifying, analysing, and reporting patterns (themes) within qualitative data. Unlike grounded theory or phenomenological methods, thematic analysis does not presuppose a particular theoretical commitment, allowing the researchers to remain close to participants' accounts while engaging critically with extant theoretical frameworks.

3.3 Sampling Strategy

A purposive sampling strategy was employed to ensure that participants possessed direct, substantial experience of organizational decision-making processes (Patton, 2015). Inclusion criteria specified: (a) a minimum of two years in a role with formal decision-making responsibilities; (b) current or recent employment in a medium or large organization (> 50 employees); and (c) cross-sectoral diversity. Snowball sampling was additionally used to recruit participants through professional networks when direct purposive recruitment was insufficient in a given sector.

The final sample comprised 50 professionals representing six sectors: technology (n = 10), manufacturing (n = 8), financial services (n = 9), healthcare (n = 7), professional services and consulting (n = 10), and public sector and education (n = 6). Participant roles included senior managers and



directors (n = 14), management consultants (n = 17), project and team leads (n = 11), and C-suite executives (n = 8). Table 1 provides a full demographic summary.

Table 1. Participant Demographic Profile (N = 50)

Category	Sub- Category	n	%
Role	Senior Manager / Director	14	28%
	Consultant	17	34%
	Project / Team Lead	11	22%
	C-Suite / Executive	8	16%
Sector	Technology	10	20%
	Manufacturing	8	16%
	Financial Services	9	18%
	Healthcare	7	14%
	Professional Services / Consulting	10	20%
	Public Sector / Education	6	12%
Experience	2–5 years	8	16%
	6–10 years	19	38%
	11–20 years	16	32%
	> 20 years	7	14%

Note. Values may not sum to 100% due to rounding.



3.4 Data Collection

Data were collected through semi-structured individual interviews conducted between January and June 2024. Semi-structured interviewing was selected as it enables in-depth exploration of participants' perspectives while maintaining thematic comparability across cases (King et al., 2019). An interview guide was developed based on a review of the RDM, NDM, and agile management literature, covering: (a) descriptions of typical decision-making episodes; (b) perceived influences on decision quality and speed; (c) the role of collaboration and information in decision processes; and (d) experiences with agile or iterative decision approaches.

Interviews ranged from 25 to 35 minutes, with a mean duration of 30 minutes. Twenty-eight interviews were conducted via video conferencing platforms (Zoom and Microsoft Teams); the remaining 22 were conducted in person at participants' organizational sites. All interviews were audio-recorded with participants' informed consent and transcribed verbatim using a professional transcription service. Transcripts were subsequently reviewed and corrected by the lead researcher to ensure accuracy.

Ethical approval was obtained from the institutional review board prior to data collection. All participants received a study information sheet and provided written informed consent. Anonymity was assured through the use of participant codes (P1-P50); no personally identifying information appears in the study's outputs. Participants were afforded the right to withdraw at any stage without consequence.

3.5 Data Analysis

Analysis followed the six-phase procedure prescribed by Braun and Clarke (2006): (1) familiarization with the data, involving repeated reading of transcripts and notation of preliminary observations; (2) systematic coding, generating a comprehensive set of initial codes capturing semantic and latent content; (3) searching for themes, collating codes into candidate themes; (4) reviewing themes, iteratively refining theme boundaries and hierarchies in relation to the coded data and the full dataset; (5) defining and naming themes, producing precise, analytically nuanced theme definitions; and (6) writing up, integrating themes into a coherent analytical narrative. The initial

coding was conducted independently by two researchers; intercoder agreement was assessed using Cohen's kappa ($\kappa = .81$), indicating substantial agreement (Landis & Koch, 1977). Discrepancies were resolved through discussion and consensus.

Analytical rigour was further enhanced through member checking, whereby summary theme descriptions were returned to a purposive sub-sample of eight participants for verification; reflexive memos were maintained throughout the analysis process; and an audit trail of all analytical decisions was preserved (Lincoln & Guba, 1985). NVivo 14 qualitative data management software was used to organize coded data.

4. Results and Findings

Thematic analysis of 50 interview transcripts yielded five overarching themes, each comprising two or three sub-themes. These themes are presented below with supporting evidence; Table 2 provides a structured summary.

4.1 Theme 1: Contextual Intelligence

The most pervasive finding across all sectors was participants' reliance on contextual intelligence, defined as the integration of situational reading with accumulated experiential knowledge to rapidly orient decision making. Participants consistently described abandoning formal analytical frameworks under time pressure, instead drawing on what Klein (1998) would term pattern recognition. A senior manager in the manufacturing sector observed, "We do not follow a rigid procedure. Years of experience guide what information matters most in a given situation" (P12). This finding aligns with NDM theory, yet participants simultaneously acknowledged the importance of grounding intuitive judgments in available data, suggesting a more dialectical relationship between analysis and experience than either RDM or NDM alone predicts. Another participant emphasized the interplay between experience and analytical reasoning:



“In fast-changing environments, we often rely on past experience first, but we quickly validate those instincts using whatever data is available before acting” (P21, Consultant).

Similarly, a healthcare professional highlighted the role of situational judgment:

“Protocols are important, but every case is different. Experience helps us interpret what the data actually means in that moment” (P33, Healthcare Professional)

Sub themes within contextual intelligence included situational assessment the rapid identification of decision critical variables and experiential heuristics, whereby tacit knowledge derived from prior decision episodes was applied to novel situations. Healthcare professionals were particularly articulate about this duality, noting that clinical decision protocols analogous to RDM are routinely adapted through experiential judgment in complex patient presentations.

4.2 Theme 2: Collaborative Decision Architecture

A second prominent theme concerned the structural and relational conditions that enable collective decision-making. Participants across all sectors emphasized that high-quality decisions emerged from inclusive, cross-functional deliberation rather than individual or siloed analysis. A director in the financial services sector observed: "Our best decisions happen when people from different functions sit together and challenge assumptions" (P27). A project manager in the technology sector noted:

“Decisions improve when multiple perspectives are involved. Different teams see risks and opportunities differently” (P9, Project Lead).

Another respondent emphasized shared ownership:

“When people are involved in the decision, they are more committed to making it work during implementation” (P18, Consultant).

This finding extends Ancona et al.'s (2019) distributed sensemaking model, suggesting that cross-boundary collaboration is not merely advantageous but structurally necessary in complex decision environments.



Sub-themes included cross-functional team composition, inclusive participation norms, and shared decision ownership. Consulting professionals were notably emphatic about the decision-quality benefits of client-consultant collaboration, arguing that co-constructed decisions commanded greater organizational commitment during implementation—an observation consistent with participatory decision-making theory (Locke & Schweiger, 1979).

4.3 Theme 3: Information Transparency and Flow

Participants consistently identified information asymmetry as a primary source of decision failure. The theme of information transparency captured both technical dimensions relating to data systems, dashboards, and reporting architecture and cultural dimensions, specifically the organizational norms governing what information is shared, with whom, and at what speed. A management consultant stated: "Decisions fail when finance and operations are working off different numbers. Shared dashboards changed everything" (P34). This observation resonates with Patel et al.'s (2020) finding that information quality moderates the effectiveness of agile decision practices.

Sub-themes included real-time data accessibility, the elimination of information silos, and trusted reporting mechanisms. Sector differences were notable here: technology and financial services firms were more likely to have invested in integrated data infrastructure, while public sector participants reported persistent challenges with fragmented information systems that constrained decision quality.

4.4 Theme 4: Iterative Adaptation and Feedback

A fourth theme described participants' deliberate use of iteration and structured feedback as mechanisms for managing decision risk under uncertainty. Rather than seeking optimal solutions prior to implementation, agile-oriented participants treated decisions as hypotheses to be tested, adjusted, and refined through experience. A project lead in the technology sector articulated this orientation: "We now treat every major decision as a pilot. If it does not work, we adjust quickly rather than defending a plan" (P8). This finding corroborates Stoica et al.'s (2019) cross-sector evidence on the positive performance effects of iterative decision cycles.



Sub themes included structured pilot testing, rapid feedback cycles, and organizational learning from failure. Participants from consulting environments were particularly experienced with staged decision implementation, reflecting professional norms favouring phased engagement models. Notably, tolerance for failure as a learning mechanism varied markedly across sectors: technology professionals exhibited the greatest psychological comfort with failure, while participants from regulated industries healthcare and financial services reported significant institutional constraints on iteration.

4.5 Theme 5: Agile Leadership Enablement

The fifth theme addressed the critical role of leadership behaviour in enabling or constraining agile decision-making. Participants identified a specific leadership profile associated with effective agile decisions: leaders who provide clear strategic direction while deliberately devolving tactical decision authority, create psychological safety for risk-taking, and model adaptive rather than defensive responses to uncertainty. A C-suite executive remarked: "Senior leaders must deliberately give up control. That is the hardest cultural shift" (P41). This finding aligns with Joiner's (2019) empirical characterization of agile leadership competencies.

Sub themes comprised psychological safety, decentralized authority, and agile mindset modelling. Participants noted that the absence of psychological safety was the single most frequently cited barrier to agile decision behaviour regardless of sector, size, or structural configuration suggesting that leadership culture may be a more powerful determinant of decision agility than organizational structure alone.

Table 2. Summary of Thematic Findings

Theme	Sub-Theme	Representative Quotations
T1: Contextual Intelligence	Situational assessment; experience-driven heuristics	"We do not follow a rigid procedure. Years of experience guide what information matters most in a given situation." (P12, Senior Manager)
T2:	Cross-functional	"Our best decisions happen when people from



Collaborative Decision Architecture	teams; inclusive participation; shared ownership	different functions sit together and challenge assumptions." (P27, Director)
T3: Information Transparency and Flow	Real-time data access; removing information silos; trusted reporting	"Decisions fail when finance and operations are working off different numbers. Shared dashboards changed everything." (P34, Consultant)
T4: Iterative Adaptation and Feedback	Pilot testing; rapid feedback cycles; learning from failure	"We now treat every major decision as a pilot. If it does not work, we adjust quickly rather than defending a plan." (P8, Project Lead)
T5: Agile Leadership Enablement	Psychological safety; decentralised authority; agile mindset	"Senior leaders must deliberately give up control. That is the hardest cultural shift." (P41, C-Suite Executive)

Note. Participant codes correspond to the anonymized sample (P1-P50).

5. The AGILE-DECIDE Framework

Drawing on the five empirical themes and integrating theoretical constructs from the RDM, NDM, and organizational agility literatures, this study proposes the AGILE DECIDE Framework a conceptual model representing the enabling conditions, processes, and outcomes of effective agile decision making in organizational contexts. The framework comprises six inter related constructs (see Table 3).

The framework posits that Agile Leadership Commitment ALC operates as the primary antecedent, establishing the psychological and structural conditions within which agile decision processes are possible. ALC directly influences the Collaborative Decision Environment CDE, the cross functional and psychologically safe arena within which deliberation occurs. Information Transparency IT moderates both the quality of collaborative deliberation and the implementation fidelity of decisions, ensuring that judgments are grounded in accurate, shared understanding of organizational reality. Learning Loops LL represent the feedback architecture through which each decision cycle generates actionable intelligence closing the gap between intended and realized outcomes. Evidence Based Execution EBE captures the disciplined, data informed implementation of decisions, distinguishing agile execution from ad hoc improvisation. The combined effect of these constructs on



Decision Efficacy DE the organization's capacity to make timely, high quality, adaptive decisions constitutes the framework's outcome variable.

The framework advances prior models in three respects. First, it explicitly integrates RDM's emphasis on information quality and systematic evaluation represented by IT and EBE with NDM's recognition of experiential judgment and situational awareness represented by CDE and ALC. Second, it positions feedback loops not as post hoc evaluation tools but as constitutive elements of the decision process itself a finding consistent with agile principles but underrepresented in extant decision theory. Third, it identifies leadership commitment as a necessary but not sufficient antecedent, requiring structural enablement CDE and IT to translate into decision efficacy.

Table 3. AGILE-DECIDE Framework Constructs

Construct	Definiton	Operational Indicators
Agile Leadership Commitment (ALC)	Degree to which senior leaders champion agile mindsets and devolve decision authority	Visible sponsorship; distributed authority; psychological safety
Collaborative Decision Environment (CDE)	Structural and cultural conditions enabling cross-functional participation in decisions	Mixed teams; open forums; shared accountability
Information Transparency (IT)	Availability, accuracy, and real-time accessibility of decision-relevant data	Shared dashboards; single source of truth; data literacy
Learning Loops (LL)	Embedded feedback mechanisms that generate actionable intelligence after each decision cycle	Post-decision reviews; fail-fast protocols; continuous improvement



Evidence-Based Execution (EBE)	Disciplined implementation grounded in data, pilot tests, and iterative refinement	KPI tracking; pilot programmes; adaptive planning
Decision Efficacy (DE)	Organisation's perceived capability and confidence in making timely, high-quality decisions	Decision speed; stakeholder satisfaction; outcome quality

Note. ALC = Agile Leadership Commitment; CDE = Collaborative Decision Environment; IT = Information Transparency; LL = Learning Loops; EBE = Evidence-Based Execution; DE = Decision Efficacy.

6. Discussion

6.1 Beyond RDM and NDM: A Hybrid Account

A central contribution of this study lies in demonstrating that organizational decision-making in dynamic environments cannot be adequately explained by either Rational Decision-Making (RDM) or Naturalistic Decision-Making (NDM) in isolation. While RDM emphasizes structured analysis, optimization, and information completeness, the empirical findings reveal that such approaches are often impractical under conditions of time pressure, uncertainty, and information ambiguity. Conversely, although NDM effectively captures the role of intuition, experience, and situational awareness, it underrepresents the structured analytical mechanisms that organizations increasingly employ.

The findings suggest that decision-making in agile organizational contexts is inherently hybrid, characterized by the simultaneous use of analytical reasoning and experiential judgment. Participants consistently reported initiating decisions through intuitive pattern recognition, followed by rapid validation using available data and collaborative input. This dynamic interplay reflects a form of adaptive cognition, where decision-makers fluidly shift between intuitive and analytical modes depending on situational demands.

These findings extend the dual-process perspective proposed by Dane and Pratt (2007), which conceptualizes intuition and analysis as complementary rather than competing processes. However, this study advances the literature by embedding these cognitive processes within organizational structures, highlighting that decision-making is not solely an individual cognitive act but a socially and structurally mediated process.



Furthermore, the study contributes to emerging work on agile decision-making by demonstrating that hybrid decision processes are operationalized through iterative cycles, collaborative engagement, and information transparency. This aligns with adaptive decision-making frameworks (Wang et al., 2018) but extends them by incorporating organizational enabling conditions as integral components of decision processes.

Table 4. Comparative Analysis: RDM, NDM, and Agile-Hybrid Decision Frameworks

Dimension	Rational DM (RDM)	Naturalistic DM (NDM)	Agile Hybrid
Information use	Comprehensive, exhaustive	Pattern-based, experiential	Selective, real-time, transparent
Process	Sequential, analytical	Intuitive, situational	Iterative, adaptive
Role of experience	Minimal (algorithm-driven)	Central (heuristics)	Complementary (data + intuition)
Locus of decision	Individual or centralised	Individual expert	Distributed, cross-functional
Feedback integration	Post-hoc evaluation	Situational awareness	Embedded feedback loops
Speed vs. quality trade-off	Optimises quality over speed	Optimises speed via expertise	Balances both via iteration
Uncertainty tolerance	Low (structured environments)	High (dynamic, novel)	High (adaptive frameworks)

Note. RDM = Rational Decision-Making; NDM = Naturalistic Decision-Making.

These findings align with Dane and Pratt's (2007) dual-process framework, which positions intuition and analysis as complementary rather than competing resources.



They also extend Moe et al.'s (2021) work on collaborative agile decision-making by identifying specific enabling conditions—particularly psychological safety and information transparency—as mediating the relationship between collaborative structures and decision quality. The hybrid character of observed decision behaviour is perhaps best captured by the concept of adaptive decision-making (Wang et al., 2018), wherein practitioners fluidly shift between analytical and intuitive modes in response to situational demands.

6.2 The Primacy of Enabling Conditions

A second key insight from this study is the critical role of organizational enabling conditions in shaping decision effectiveness. The findings indicate that decision quality and speed are less dependent on individual cognitive capability and more strongly influenced by the organizational context within which decisions are made.

Three enabling conditions emerged as particularly influential: psychological safety, information transparency, and distributed authority. Participants operating within environments characterized by high psychological safety reported greater willingness to share information, challenge assumptions, and engage in constructive debate behaviors essential for high quality decision making. This finding reinforces Edmondson's (1999) work on team learning while extending its relevance to agile decision making contexts.

Information transparency was found to be equally critical. Organizations with integrated data systems and shared information platforms demonstrated more efficient and aligned decision processes. In contrast, information asymmetry and siloed data structures were consistently associated with poor decision outcomes.

The study also highlights the importance of decentralized decision authority, enabling faster responses and greater adaptability. However, decentralization alone was insufficient; its effectiveness depended on the presence of shared information and collaborative structures.

Importantly, these findings suggest that agile decision-making is not merely a function of adopting new techniques or tools, but rather requires systemic organizational alignment across leadership, culture, and information infrastructure.

6.3 Theoretical Contributions

This study makes three significant contributions to the literature on organizational behavior and decision-making.



First, it advances decision-making theory by empirically demonstrating that organizational decision processes are inherently hybrid, integrating analytical reasoning with experiential judgment. This extends dual-process theories by situating them within complex organizational environments.

Second, the study introduces the AGILE-DECIDE framework as a novel integrative model that bridges Rational Decision-Making, Naturalistic Decision-Making, and agile management theory. Unlike prior models, the framework explicitly incorporates organizational enabling conditions and iterative processes as central components of decision-making.

Third, the study reconceptualizes feedback loops as core elements of decision architecture rather than post-hoc evaluation mechanisms. This contributes to the literature on organizational learning by highlighting the role of continuous feedback in managing uncertainty and improving decision outcomes.

6.4 Managerial Implications

The findings of this study provide several actionable implications for organizational leaders and practitioners.

First, organizations should prioritize the development of psychological safety as a foundational condition for effective decision-making. Without an environment that supports open communication and risk-taking, collaborative decision processes are unlikely to succeed.

Second, organizations must invest in integrated information systems that ensure real-time access to accurate and shared data. Eliminating information silos is essential for improving both decision speed and quality.

Third, organizations should institutionalize cross-functional decision-making structures, enabling diverse perspectives and shared accountability.

Fourth, decision-making processes should incorporate iterative feedback mechanisms, such as pilot testing and post-decision reviews, to support continuous learning and adaptation.

Finally, leadership development initiatives should focus on cultivating agile leadership capabilities, including adaptability, decentralization of authority, and tolerance for uncertainty.

7. Conclusion



This study set out to examine how agile decision-making is enacted in organizational and consulting practice, and to evaluate the explanatory relevance of Rational Decision-Making (RDM) and Naturalistic Decision-Making (NDM) frameworks in dynamic environments. Drawing on qualitative evidence from 50 professionals across multiple sectors, the study identified five key dimensions of agile decision-making: contextual intelligence, collaborative decision architecture, information transparency, iterative adaptation, and agile leadership enablement.

The findings demonstrate that contemporary organizational decision-making is best understood as a hybrid process, integrating analytical rigor with experiential judgment within iterative and feedback-driven structures. Neither RDM nor NDM alone sufficiently captures this complexity; instead, effective decision-making emerges from their integration within enabling organizational conditions.

In response, the study developed the AGILE-DECIDE framework, which provides a comprehensive model linking leadership commitment, collaboration, information transparency, and learning mechanisms to decision efficacy. The framework offers both theoretical and practical value, contributing to a deeper understanding of decision-making in complex and uncertain environments.

7.1 Limitations

Several limitations should be acknowledged. First, as a qualitative study, the findings are not statistically generalizable, although they provide rich and contextually grounded insights into organizational decision-making practices. Second, the reliance on self-reported data may introduce biases such as retrospective rationalization and social desirability effects. Third, the cross-sectional design limits the ability to capture how decision-making processes evolve over time. Finally, while the cross-sector sample enhances breadth, it may obscure industry-specific dynamics that could be explored in more focused studies.

7.2 Future Research Direction

Future research should focus on quantitatively validating the AGILE-DECIDE framework using advanced statistical techniques such as Partial Least Squares Structural Equation Modeling (PLS-SEM). This would enable empirical testing of the relationships between constructs and strengthen the generalizability of the framework.

Longitudinal studies are also recommended to examine how agile decision-making evolves over time within organizations, providing deeper insights into dynamic decision processes and learning mechanisms.



Additionally, cross-cultural and sector-specific research could explore how contextual factors influence the applicability and effectiveness of agile decision-making practices. Finally, future studies may investigate the role of emerging technologies, including artificial intelligence and data analytics, in enhancing hybrid decision-making processes.

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