Leading for Agility: Examining the Role of Transformational Leadership and Organizational Culture in Driving Adaptive Capability in Dynamic Environments

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ABSTRACT

In today's volatile, uncertain environment, organizational agility has become a strategic imperative for firms seeking to survive and thrive. While structural and technological enablers of agility have been widely studied, the behavioral and cultural foundations remain underexplored. This study examines the impact of transformational leadership on organizational agility, specifically the differential effects of its four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Drawing on a mixed-methods design, the research combines quantitative data from UK organizations with qualitative insights to provide a comprehensive understanding of leadership-agility dynamics. Results reveal that intellectual stimulation and inspirational motivation are the most significant predictors of agility, highlighting the importance of cognitive engagement and visionary communication in fostering adaptive behavior. Qualitative evidence indicates that culture conditions leadership's effects: participative and change-oriented environments appear to enhance effectiveness, whereas hierarchical cultures may hinder it. These findings contribute to both theory and practice by clarifying the behavioral mechanisms and contextual factors that shape agility. The study offers actionable insights for leadership development and organizational design in contexts characterized by complexity and change.

Keywords: Transformational leadership, Organizational agility, Dynamic capabilities, Leadership dimensions, Organizational culture, Adaptive organizations

1. Introduction

In contemporary, globally interconnected, and volatile business environments, organizational agility is increasingly viewed as a defining strategic capability that enables firms to anticipate change, respond quickly, and reconfigure structures, routines, and resources to sustain performance under turbulent conditions [1], [2]. Evidence from healthcare, hospitality, and internationally operating firms shows that organizations that develop agility are better able to navigate regulatory disruption,

recover from environmental shocks, and maintain competitive positioning during periods of market instability, including the period after the COVID-19 pandemic [2], [3], [4], [5]. Recent studies further associate agility with superior performance, resilience, and the ability to convert uncertainty into productive adaptation [2], [4], [5]. This work positions agility not as a temporary crisis response but as an ongoing capability central to strategic survival [1], [2].

Scholars have increasingly traced agility to structural and technological enablers. Digital transformation initiatives, leadership support for technological modernization, and the development of adaptive information systems architectures have been shown to strengthen agility and corporate resilience [6], [7]. Information systems capabilities and management models that emphasize flexibility in decision making and rapid information flow have also been linked to superior strategic responsiveness and performance [8], [9]. This stream of research demonstrates that technology, infrastructure, and organizational design matter for agility [6], [7], [8], [9]. However, the behavioral and relational foundations of agility remain comparatively less understood. In particular, there is still limited clarity on how leadership practices mobilize people, shape shared purpose, and drive the collective willingness to adapt under pressure, even though leadership has been repeatedly associated with innovation, change acceptance, and portfolio-level success in demanding settings [6], [10], [11], [12], [13].

Transformational leadership has emerged as a central lens for understanding how leaders create the conditions for individuals and groups to pursue collective goals beyond routine compliance [14], [15]. Foundational work conceptualizes transformational leadership as the process through which leaders elevate followers' motives, articulate a compelling shared vision, and align individual effort with long-term organizational purpose [14], [15]. Later work identifies four core behavioral dimensions that characterize transformational leadership. Idealized influence refers to the leader's role as an ethical and respected model. Inspirational motivation involves communicating an energizing and meaningful future direction. Intellectual stimulation involves encouraging followers to question assumptions and generate novel solutions. Individualized consideration involves developmental support that is tailored to followers' needs [15], [16].

A growing body of evidence links these behaviors to important organizational outcomes. Transformational leadership has been associated with psychological empowerment and innovative behavior, because followers experience greater autonomy, significance, and confidence in their capacity to contribute creatively [17]. It predicts higher job satisfaction and positive work attitudes, which are essential for sustaining energy in uncertain environments [18]. It has been linked to improved change commitment among employees in education systems, stronger identification with collective goals, and greater willingness to actively engage in organizational transformation [10], [11], [12], [13], [19]. Transformational leadership has also been linked to organizational performance and effectiveness across sectors such as higher education and public administration, and in both mature and resource-constrained environments [20], [21].

Despite this evidence, the direct relationship between transformational leadership and organizational agility has not been examined with the same level of precision. Transformational

leaders motivate people to act beyond immediate self-interest, cultivate initiative, and foster adaptive problem-solving [14], [15], [16], [17]. These mechanisms appear conceptually consistent with agility, since agility depends on proactive sensing, rapid mobilization, and collective willingness to reconfigure routines [1], [2], [6]. Recent studies suggest that leadership can enhance agility and resilience, in part by enabling coordinated adaptation during digital transformation and environmental turbulence [6]. Research in hospitality and tourism organizations also associates leadership styles with agility through mechanisms such as trust, ambidexterity, and openness to change, suggesting that leadership may indirectly influence agility by shaping the social and cognitive climate through which employees interpret uncertainty [22]. However, empirical work still provides only partial answers regarding the strength and structure of this influence, particularly outside traditionally examined Western corporate settings [6], [10], [11], [19], [22].

A second limitation in the existing evidence concerns how transformational leadership is typically modeled. Many studies treat transformational leadership as a single global construct, often by aggregating its dimensions into an overall score using established instruments such as the Multifactor Leadership Questionnaire, which captures idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration [23], [24], [25]. This practice is valuable for parsimony, but it may also obscure which specific leadership behaviors are most consequential for agility. It remains unclear whether agility is primarily driven by visionary framing, cognitive stimulation, individual-level developmental support, or some combination of these behaviors [15], [16], [23], [24], [25]. Without such granularity, theoretical precision and practical guidance are both constrained.

A third unresolved issue is the limited attention to organizational culture as a contextual mechanism and boundary condition. Transformational leadership rarely operates in isolation from culture. Leaders influence shared values, fairness perceptions, and identification with the organization, and these cultural processes strengthen collective commitment to change and sustained engagement [15], [20], [26]. Transformational leadership has been associated with cultures that emphasize participation, trust, innovation, and alignment with purpose, and such cultures, in turn, have been linked to performance and effectiveness in educational, financial, and public-sector organizations [13], [20], [26]. Culture further matters because it shapes employees' willingness to internalize leadership's change-oriented messages, maintain commitment, and take discretionary initiative rather than resist disruption [19], [26], [27]. Studies in healthcare and service settings show that cultures that emphasize readiness for change, learning, and psychological safety are associated with higher agility, greater responsiveness, and smoother transition toward new practices [27], [28]. Leadership influence on agility may therefore depend on how culture transmits, amplifies, or filters leadership behaviors [15], [22], [26], [27], [28]. This interdependence between leadership and culture remains empirically underdeveloped.

The present study addresses these limitations by examining the relationship between transformational leadership and organizational agility in organizations operating in a high level of uncertainty. The analysis is situated in the United Kingdom. This context is characterized in practice

by institutional and market complexity, exposure to international pressures, and a persistent need for rapid adaptation. It therefore represents a relevant setting for investigating how leadership behaviors interact with internal culture and external turbulence in shaping agility.

The first rationale follows from the limited empirical clarity on the leadership agility link. It is important to understand whether and to what extent transformational leadership supports agility in complex and dynamic environments. This leads to the first research question:

RQ1: How does transformational leadership influence organizational agility in dynamic and uncertain environments?

The second rationale concerns the lack of behavioral resolution. While existing work confirms that transformational leadership improves innovation, commitment, and performance [17], [18], [19], [20], [21], we still know little about which specific dimensions of transformational leadership most directly relate to agility. This gap constrains theory building and managerial development. For this reason, a second research question is posed:

RQ2: What dimensions of transformational leadership are most effective in promoting organizational agility?

The third rationale concerns contextual contingency. Prior studies have seldom modeled organizational culture as either a mediator or moderator linking leadership to adaptive capability, even though culture has been repeatedly associated with identification, trust, readiness for change, and willingness to engage in discretionary effort in support of collective goals [20], [26], [27], [28]. Culture may either enable or inhibit the translation of leadership behaviors into agile outcomes [22], [26], [27], [28]. This motivates a third research question:

RQ3: How does organizational culture moderate the relationship between transformational leadership and organizational agility?

By addressing these research questions, the study advances theory and practice in several ways. The study examines whether transformational leadership predicts agility in an empirically demanding environment, contributing to efforts to position agility as a socially and behaviorally grounded capability rather than a purely structural or technological attribute. The study also investigates the relative influence of the four transformational leadership dimensions. This clarifies the specific leader behaviors that matter most for agility, providing actionable insights for leadership development programs. Finally, the study examines how organizational culture shapes the effectiveness of transformational leadership. This responds to calls for context-sensitive models that explain how leaders embed shared purpose and change readiness into the social fabric of the organization and how that social fabric, in turn, supports rapid coordinated adaptation [15], [20], [22], [26], [27], [28]. By integrating leadership behavior, cultural contingency, and capability development, the study contributes to academic discourse on agility and offers guidance to managers navigating growing environmental complexity.

2. Literature Review

Transformational leadership, as conceptualized by Bass and Avolio [15], is understood as a

pattern of leader behaviors that elevates followers' values, aligns individual effort with collective purpose, and mobilizes the organization toward meaningful change [14], [15]. This form of leadership is typically described in terms of four behavioral dimensions that together explain how leaders shape motivation, identification, and performance [15], [16], [23], [24]. Idealized influence refers to the leader acting as an admired and trusted role model whose conduct signals ethical conviction and personal commitment to shared goals [15], [16]. Inspirational motivation refers to the expression of a compelling and energizing vision that invites followers to invest in a shared future and to embrace ambitious collective objectives [15], [16], [23]. Intellectual stimulation refers to the ongoing encouragement of critical thinking, the reframing of assumptions, and creative problem-solving to generate novel approaches rather than routine compliance [15], [16], [17]. Individualized consideration refers to the sustained developmental attention that leaders direct toward the specific needs, growth trajectories, and constraints of each follower, so that people are supported in building confidence and capability [15], [16], [23], [24].

The original work of Bass and Avolio [15] positioned these dimensions not as isolated traits but as mutually reinforcing behaviors that together create deep commitment and shared purpose within the organization. Later studies have shown that these behaviors are associated with psychological empowerment and innovative work behavior, since followers who experience intellectual stimulation and individualized consideration report greater autonomy, meaning, and confidence in their ability to contribute creatively [17]. Transformational leadership has also been associated with higher job satisfaction and more positive work attitudes, which are essential for sustaining energy and engagement under demanding and uncertain conditions [18]. In education systems, it has been linked to stronger commitment to change and a greater willingness among employees to engage actively in collective transformation [11]. In resource-constrained and mission-driven environments, including higher education and public administration, transformational leadership has been further linked to improved organizational performance and effectiveness [20], [21]. This stream of evidence supports the argument that the four dimensions of transformational leadership have practical relevance across sectors such as education, healthcare, and business, and that these dimensions shape motivation, identification with organizational goals, and the quality of coordinated action [11], [17], [18], [20], [21].

Despite the influence of this four-factor view, several critiques have emerged. Research in settings such as private universities in China and public universities in Saudi Arabia suggests that transformational leadership is often expressed through fairness norms, identity work, and participatory climate that reflect local governance traditions and institutional expectations [26], [29]. This indicates that the classic dimensions proposed by Bass and Avolio [15] do not always capture the full relational and political work leaders must perform in environments where legitimacy and authority are continuously negotiated [26], [29]. Scholars examining leadership during periods of institutionalization of change have similarly argued that transformational leadership is embedded in context-specific processes of building acceptance, shaping collective meaning, and sustaining engagement during organizational disruption [30]. These observations suggest that transformational

leadership may involve additional nuance in practice, and that leader-follower relationships can include elements beyond the original four dimensions, especially in systems changing while defending continuity [26], [29], [30].

Questions have also been raised about how transformational leadership operates across different hierarchical levels. Empirical work indicates that hierarchical position can shape how transformational behaviors are enacted and interpreted, challenging the assumption that these behaviors function identically across all parts of the organization [31]. This is important because many contemporary organizations operate with flatter structures, distributed expertise, and fluid authority rather than with rigid vertical control. Earlier validation studies of the full range leadership model using the Multifactor Leadership Questionnaire, which is widely used to capture idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, have already suggested that transformational leadership is sensitive to contextual contingencies and may need to be modeled with greater granularity than a single undifferentiated construct [23], [24], [25]. These critiques imply that while the four-dimensional model remains foundational, its expression and impact may depend on culture, governance logic, and hierarchy.

2.1 Contemporary Perspectives on Transformational Leadership

Contemporary perspectives increasingly integrate ethical, authentic, and servant leadership with transformational leadership to foreground trust, moral conduct, and follower development as everyday organizing principles [32]. The original transformation thesis also placed moral elevation at the center of leadership, which strengthens the ethical reading of transformational practice in modern organizations [14]. Authentic leadership advances this integration by emphasizing transparency, self-awareness, and genuine relational exchange while retaining the inspirational and motivational core of transformational leadership [33], [34]. Comparative fieldwork further indicates that authenticity uniquely contributes to follower trust and prosocial engagement alongside transformational behaviors, suggesting complementarity rather than redundancy between the constructs [35].

The dialogue at the intersection of these theories has practical consequences for creativity, innovation, and knowledge sharing. Training interventions that cultivate authentic leader behaviors are associated with stronger innovative work behavior among professional staff, and sector studies in technology-oriented firms report similar links between authenticity and employee creativity [36], [37]. Evidence examining authentic and transformational leadership together shows that their joint presence predicts innovative work behavior more strongly when employees feel psychologically empowered, suggesting that leader style operates through cognitive and affective enablers that make idea expression feel both safe and worthwhile [38].

A significant gap remains regarding the generalizability of transformational leadership dimensions across cultural settings and governance regimes. Studies in Chinese private universities and systematic reviews of Saudi public universities point to local fairness norms, identity work, and participatory climates that reshape how transformational behaviors are interpreted and valued, challenging assumptions of universality in the classic four-dimensional model [26], [29]. Future

research that combines cross-cultural surveys with in-depth case studies can clarify how culture shapes both the enactment and perception of transformational leadership during periods of institutional change, when meaning-making and acceptance must be actively constructed [30], [34].

2.2 Organizational Agility: Conceptualizing Adaptability

2.2.1 Dimensions and drivers of organizational agility

Organizational agility is the capability to sense shifts, decide quickly, and reconfigure resources in ways that sustain performance under uncertainty, and it is usefully understood through three complementary domains of action that reinforce one another [39], [40]. Strategic agility captures the capacity to read the external environment, anticipate change, and reshape positioning and value propositions so that strategy remains aligned with evolving conditions [39], [41]. Operational agility concerns the speed and flexibility of core processes, including the ability to adjust workflows and coordination patterns to preserve service quality and throughput when demand fluctuates [4], [43], [3]. Portfolio agility reflects the ability to rebalance initiatives and assets across programs and business lines so that resource allocation supports strategic priorities as they evolve [45], [46], [44], [42]. These domains describe how organizations combine foresight, process adaptability, and dynamic resource orchestration to respond to shocks and convert turbulence into focused action [39], [4], [3], [45].

These domains enable rapid response by cultivating real-time decision-making, resilient routines, and disciplined learning that link local experimentation with system-wide goals [39], [4]. Digital capabilities amplify these effects through information visibility, modular architectures, and data-driven coordination, shortening the cycles between sensing and acting [3], [42], [43], [44]. Workforce-related enablers also matter, since agile behavior depends on employees who can switch roles, solve problems collaboratively, and sustain initiative under pressure, which is supported by workforce agility and the development of socioemotional resources that facilitate adaptive action [47], [48]. Leadership engagement strengthens these drivers when senior teams pair digital transformation with clear direction and coordinated empowerment, which improves agility and corporate resilience in volatile conditions [49]. Knowledge management and organizational learning further support agility by enabling ambidexterity, since firms that codify and share expertise are better able to reconfigure resources without losing coherence [45], [46]. Although these patterns recur across industries, research in emerging and turbulent markets suggests that the relative salience of specific agility drivers varies with institutional constraints and technological readiness, indicating the value of context-sensitive inquiry into how agility is built and sustained in different settings [41], [50].

2.2.2 Outcomes and consequences of organizational agility

Organizational agility has been consistently linked to improved performance, sustained competitiveness, and strategic differentiation in environments marked by volatility and rapid change [2], [4], [5]. Firms that develop agility can interpret shifts in demand and respond quickly through targeted adjustments in strategy, processes, and resource allocation, and this responsiveness is associated with measurable gains in performance in sectors such as hospitality, where rapid recovery

and service continuity after severe disruption are essential [4]. Studies in internationally oriented, knowledge-intensive settings similarly show that agility helps firms navigate competitive pressure and dynamic customer expectations, supporting superior market performance [2]. Agility also promotes innovation by enabling organizations to experiment, recombine knowledge, and operationalize new ideas at speed, strengthening competitive advantage and contributing to long-term positioning [5], [44]. In this sense, agility functions not only as an operational discipline but as a strategic mechanism that allows organizations to convert turbulence into opportunity [2], [4], [5], [44].

Agility further contributes to organizational resilience. Agility improves the capacity to absorb shocks, maintain continuity, and restore operational effectiveness when circumstances become unstable [3], [4], [6]. Evidence from healthcare, banking, and hospitality shows that organizations with higher levels of agility maintain service quality and continue delivering outcomes even under crisis conditions, regulatory pressure, or abrupt environmental change [3], [4], [6]. Readiness for change among staff has also been associated with greater agility in demanding clinical settings, indicating that agility is tied to personnel's day-to-day ability to adapt and realign practice under pressure [28]. In this respect, agility is not only a performance enhancer in favorable conditions but also a resilience capacity that allows organizations to withstand and recover from disruption [3], [4], [6], [28].

These benefits do not come without cost. Agility depends on a workforce that can continually reorient attention, shift roles, and solve novel problems in real time, and this expectation places cognitive and emotional demands on employees [47], [48]. Research in healthcare networks and other high-stakes environments shows that agility requires employees to regulate stress, manage uncertainty, and remain engaged amid continuous change, and that leaders must actively develop and support these capacities [28], [47], [48]. Organizations that pursue agility without attending to these human demands risk creating fatigue and fragmentation in their workforce, which can undermine the very adaptability they seek to build [28], [47], [48].

2.3 The Nexus of Transformational Leadership and Organizational Agility

2.3.1 Theoretical linkages

The relationship between transformational leadership and organizational agility can be understood through the lens of the dynamic capabilities view. This perspective holds that organizations must continually develop, integrate, and reconfigure key capabilities to adapt and remain competitive in volatile, uncertain environments [45], [40]. Transformational leadership contributes to this ongoing capability building. Leaders who articulate meaningful purpose and mobilize collective effort stimulate organizational learning, knowledge creation, and ambidexterity, and these qualities are associated with stronger strategic responsiveness and growth in entrepreneurial and innovation-driven settings [46]. Leadership that actively shapes a shared direction and cultivates an adaptive culture has also been linked to higher levels of organizational agility in small and medium-sized enterprises operating under conditions of market instability, suggesting that leadership and agility are socially and behaviorally connected rather than purely structural phenomena [50]. The relational trust that emerges under such leadership helps dissolve internal barriers, supports

collaboration across functional lines, and accelerates coordinated action. These social mechanisms have been associated with more agile decision-making and more rapid adjustment in service-intensive environments such as tourism and hospitality, as well as in hybrid work teams that depend on strong interpersonal coordination to maintain task performance [22], [51].

Transformational leadership also enables dynamic capabilities through continuous learning and knowledge sharing. Leaders who encourage open exchange of knowledge and reflective inquiry build the situational awareness and collective memory that organizations require to anticipate change, realign resources, and reconfigure activities before external shocks escalate [46], [5]. This form of leadership is closely tied to the cultivation of a learning-oriented culture in which employees view adaptation and improvement as normal practice rather than an exceptional response to crisis [52], [53]. Such a culture supports psychological safety, intrinsic motivation, and a sense of shared responsibility for improvement. These conditions enable teams to experiment with new ideas, adjust processes in real time, and generate innovative solutions under pressure, which are central features of agile behavior [54], [36].

Despite these theoretical linkages, comparative evidence on the relationship between leadership agility and outcomes remains limited. Research in public sector organizations undergoing digital transformation, in small and medium-sized enterprises facing resource constraints, and in established organizations attempting to scale agile practices indicates that the expression of agility and the role of leadership in enabling it may vary substantially across institutional settings [55], [43], [56]. This suggests the need for integrated quantitative and qualitative inquiry that can capture both measurable effects of leadership on agility and the contextual mechanisms through which those effects are enacted [55], [43], [56].

2.3.2 Empirical evidence and moderating factors

Empirical work increasingly supports a positive association between transformational leadership and organizational agility. Studies report that transformational leadership helps create conditions of flexibility, learning, and coordinated responsiveness, all of which contribute to agile behavior at the organizational level [6], [20], [50], [22]. Transformational leadership has been shown to strengthen agility in banking institutions undergoing digital transformation, in part because leaders provide clarity of direction while simultaneously empowering employees to adapt processes and rethink service delivery under technological and regulatory pressure [6]. Evidence from higher education settings further indicates that transformational leadership improves organizational performance by fostering cultural norms of shared purpose, continuous improvement, and accountability, which create the conditions for agile behavior in practice [20]. Research on small and medium-sized enterprises shows that leadership behavior and organizational culture work together to shape agility in environments with intense resource constraints and market turbulence, suggesting that leadership's influence on agility is not limited to large or well-resourced firms [50]. Work in tourism and hospitality organizations connects leadership to agility through mechanisms such as trust, openness to change, and collective problem solving, and shows that these mechanisms support rapid adjustment in highly dynamic service environments [22]. This evidence indicates that transformational leaders

can equip organizations with the adaptive capacity needed to function in conditions of uncertainty.

Although the overall relationship is positive, prior studies also show that its strength is not uniform across contexts. Organizational culture consistently appears as a central moderating condition that can either amplify or weaken the effect of transformational leadership on agility [20], [26], [50], [22], [53]. Cultures that emphasize fairness, identification, and shared ownership of outcomes help translate leadership messages into sustained engagement and proactive adjustment [20], [26]. Cultures that cultivate psychological safety, a learning orientation, and a willingness to embrace change support trust and coordinated experimentation, which, in turn, enable agile shifts in routines and service delivery [22], [53]. This pattern suggests that transformational leadership does not automatically lead to agility. Rather, leadership works through cultural channels that determine how employees interpret direction, whether they are willing to act on it, and how quickly they mobilize in response to new demands.

Beyond culture, several contextual features shape how leadership influences agility. Sectoral setting matters because regulatory exposure, technological intensity, and customer immediacy differ across industries. Studies of government organizations undergoing digital transformation show that leadership must align agility strategies with public accountability and legacy systems, making agility both politically sensitive and operationally complex [55]. Research on food and beverage small- and medium-sized enterprises highlights the role of leadership in navigating digital transformation while preserving speed and responsiveness in production and delivery [43]. Large organizations adopting agile methods also report structural and procedural friction during this transition, indicating that agility is not only a behavioral capability but also an organizational change process that must be led and sustained over time [56]. Work on software-intensive project environments argues that leadership is essential for overcoming rigid structures and siloed communication so that agile practices can scale across the organization, further underscoring the contextual nature of the leadership agility link [57].

Although the literature demonstrates consistent associations between transformational leadership, supportive culture, and agility [6], [20], [50], [22], [53], significant gaps remain. Many studies are situated in specific institutional settings, such as public sector agencies, higher education, or tourism and hospitality, and they often focus on a single industry or organizational form [20], [22], [55], [43], [56]. Few studies explicitly test how culture and other contextual variables condition the leadership agility relationship using comparative designs or formal interaction tests. There is limited quantitative work that models culture, sectoral conditions, and structural features such as degree of hierarchy at the same time, despite evidence that these elements can alter how leadership is enacted and received [50], [51], [55], [43], [56], [57]. Addressing this gap will require empirical designs that examine moderation across different environments, including hybrid and project-based teams [51], resource-constrained enterprises [50], and digitally transforming public and private organizations [55], [43], [56], [57]. Such designs will clarify the mechanisms through which transformational leadership contributes to agility and will inform how organizations can cultivate leadership practices that remain effective under diverse and volatile conditions.

2.4 Conceptual Model

This study advances a conceptual framework linking transformational leadership, organizational culture, and organizational agility to explain how leaders enable adaptive capacity in the face of uncertainty. The model proposes that transformational leadership catalyzes agility by shaping behaviors, mindsets, and interaction patterns that allow organizations to respond quickly and coherently to change [6], [20], [50], [22]. Prior research shows that transformational leadership can mobilize shared purpose, coordinate adaptation during technological and environmental disruption, and strengthen organizations' ability to reconfigure processes in real time [6], [20], [50], [22]. The framework, therefore, concentrates on the pathways through which leadership influences agility and on the contextual conditions that intensify or constrain this influence.

The first proposition embedded in the model is that transformational leadership enhances organizational agility. Transformational leaders articulate a meaningful direction, energize followers, stimulate critical thinking and problem solving, and invest in individual development [14], [15], [17]. These behaviors are associated with psychological empowerment and a sense of personal significance at work, both of which support initiative and creative effort in uncertain conditions [17]. Transformational leadership has also been linked to higher job satisfaction and positive work attitudes, which are necessary to sustain engagement and discretionary effort when demands are volatile [18]. Studies in banking, education, and service-intensive environments further indicate that such leaders help establish the conditions required for rapid, coordinated adjustment through a combination of clarity of vision, encouragement of innovation, and reinforcement of collective responsibility for adaptation [6], [20], [50], [22]. The core expectation is that leadership styles that cultivate empowerment, intrinsic motivation, and trust equip teams to act with speed, flexibility, and resilience when the environment shifts [6], [17], [50], [22]. This expectation is formalized in the first hypothesis.

H1. Transformational leadership is positively associated with organizational agility.

The second proposition acknowledges that the effectiveness of transformational leadership is shaped by organizational culture. Leadership influence does not operate in a social vacuum. Instead, it is filtered through cultural norms that define how people interpret direction, assign meaning to change, and are willing to act on leader expectations [20], [26], [50], [22], [53]. Research shows that transformational leaders foster cultures of fairness, identification, shared purpose, and developmental support, and that such cultures encourage employees to engage with change rather than resist it [20], [26], [53]. Cultures that value collaboration, continuous learning, and proactive adjustment tend to amplify the impact of transformational leadership by normalizing experimentation, coordinated problem-solving, and joint ownership of outcomes [50], [22], [52], [53]. By contrast, cultures characterized by rigidity, top-down control, or substantial hierarchical distance may weaken the translation of leadership intent into agile behavior, especially in settings where authority is centralized and flexibility is politically constrained [31], [50], [55]. These observations motivate the second hypothesis, which explicitly treats culture as a condition that strengthens the link between transformational leadership and agility.

H2. The relationship between transformational leadership and organizational agility is stronger

in organizations with adaptive, change-oriented cultures[1].

The conceptual model aligns with the study's aims and the research questions. It captures how leadership can shape agile capability while recognizing that this influence is contingent on the cultural environment that supports or restricts adaptive behavior [20], [26], [50], [22], [53]. Its structure is intentionally parsimonious so that it can be tested empirically across diverse sectors and institutional settings, including education, public administration, and digitally transforming service industries [6], [20], [50], [22], [55]. Figure 1 presents the proposed model. Transformational leadership is expected to exert a direct positive effect on organizational agility, and organizational culture is expected to condition the strength of this effect by enabling or constraining the translation of leadership behaviors into coordinated adaptive action.

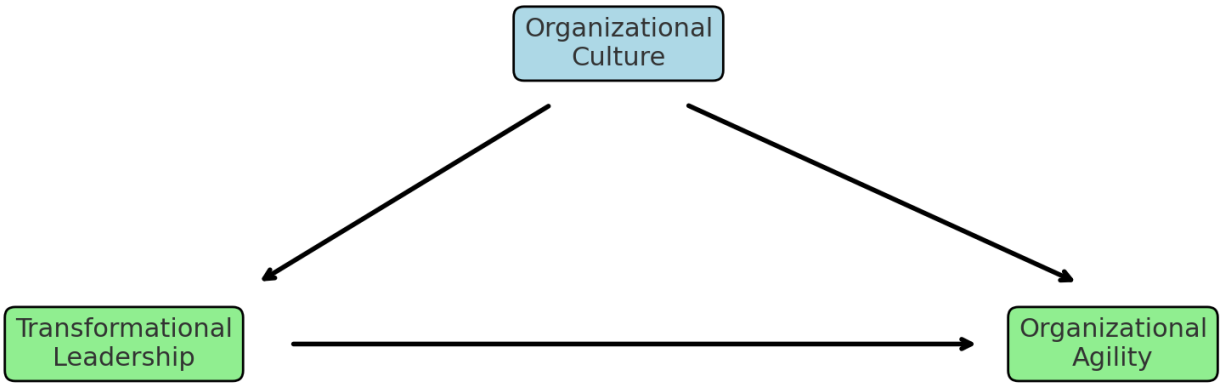

Figure 1. Conceptual model

3. Research Methodology

3.1 Research Design

This study employs a mixed-methods design integrating quantitative and qualitative approaches to examine how transformational leadership relates to organizational agility in complex organizational environments. This design is appropriate for leadership agility research because it can capture both measurable structural patterns and socially embedded processes across different sectors. Although the empirical data were collected from organizations operating in the United Kingdom, the analytical focus addresses broader challenges that are shared by organizations that function in volatile and uncertain conditions, including technological disruption, institutional pressure, and rapid shifts in demand [6], [55], [43], [56].

The quantitative component uses a correlational design to estimate the statistical association between transformational leadership behaviors and organizational agility across a structured sample of organizations. This approach allows the study to assess the strength and direction of the relationship between leadership and agility using validated survey instruments. It also supports generalization within the sampled context when supported by appropriate sampling logic and power considerations

[1] Moderation is examined interpretively via qualitative evidence. Interaction effects were not modeled in the quantitative phase.

[58], [59]. Organizational agility is widely described as a capability that enables organizations to anticipate change, respond quickly, and reconfigure resources to preserve performance amid turbulence [1], [2]. Quantitative analysis, therefore, provides the first layer of evidence by testing whether variation in transformational leadership is systematically associated with variation in organizational agility [14], [15].

The qualitative component complements this analysis through an exploratory case study design. The case studies examine how leaders and teams interpret uncertainty, coordinate under pressure, and translate strategic intent into adaptive practice within real organizations. Prior work shows that leadership during periods of institutional change is often situated in culturally specific processes of meaning making, identity work, and negotiated acceptance rather than in abstract structural levers [30]. Studies of digitally transforming government bodies, small and medium-sized enterprises facing resource constraints, and large organizations attempting to embed agility in existing structures all indicate that context shapes how leadership influence is expressed, received, and sustained over time [55], [43], [56]. The qualitative phase in this study follows this reasoning and investigates how transformational leadership behaviors are enacted in practice and how they are experienced by employees as they navigate ambiguity and change.

The two components are integrated to generate both theoretical and practical insight. The quantitative results identify general patterns that link transformational leadership to organizational agility in a measurable way [1], [2], [14], [15]. The qualitative findings illuminate the mechanisms and boundary conditions behind those patterns and show how culture, structural constraints, and sector demands can either amplify or suppress leader influence on agility [30], [55], [43], [56]. Combining correlational evidence with situated accounts of practice strengthens the validity of the overall interpretation by joining statistical association, contextual depth, and methodological rigor in sampling, measurement, and model adequacy [58], [59].

3.2 Data Collection Methods

This study employed a sequential explanatory design to capture the multifaceted nature of the relationship between transformational leadership and organizational agility. The integration of both forms of data ensures a comprehensive understanding of the leadership-agility dynamic, especially within organizations navigating high levels of environmental uncertainty.

3.2.1 Quantitative data collection

Quantitative data were collected through a structured survey administered to middle-level and upper-level managers across multiple industries. The participating organizations operate within the United Kingdom. However, they are embedded in global value chains and compete in volatile, uncertain environments that require continuous adaptation to technological pressures, customer expectations, and regulatory change [1], [2], [55], [43], [56]. This context provides a suitable setting for examining how transformational leadership relates to organizational agility in conditions that resemble the strategic and operational pressures faced by firms internationally.

The survey instrument included validated multi-item scales designed to measure the two core constructs of interest, transformational leadership and organizational agility. Transformational

leadership was assessed using the Multifactor Leadership Questionnaire in its widely used MLQ 5X form, which captures the four established dimensions of transformational leadership, namely idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration [23], [24], [25]. The MLQ 5X has demonstrated strong psychometric performance. Across multiple-sample studies, Cronbach's α for the subscales commonly falls between .74 and .94, and many reported values are at or above .80, which indicates consistent internal reliability across settings [23], [24], [25]. Internal consistency in the present study was acceptable for all transformational leadership dimensions. For intellectual stimulation, abbreviated IS, α was .88. For inspirational motivation, abbreviated IM, α was .86. For individualized consideration, abbreviated IC, α was .83. For idealized influence, abbreviated II, α was .80. The overall composite for transformational leadership showed α equal to .92. These values indicate that the instrument functioned reliably in this sample [23], [24], [25].

Organizational agility was measured using an adapted multi-dimensional scale developed from prior empirical work on agility as an adaptive capability. The instrument captures strategic, operational, and portfolio agility, which together reflect the capacity to anticipate change, realign processes, and reallocate resources to maintain performance under turbulence [1], [2]. Construct validity for the agility measure was examined through factor analysis to verify that the items loaded onto their intended dimensions. Reliability was evaluated using Cronbach's α, and all agility dimensions displayed α values above the commonly accepted threshold of .70, which indicates consistent measurement within each dimension [1], [2].

Participants were selected through stratified random sampling to ensure representation across key sectors and organizational sizes. A total of 321 managers were recruited from manufacturing, service, and technology-driven firms. The final sample size was determined through an a priori power analysis using the G Power tool, which indicated that a minimum of 300 respondents was required to detect medium effect sizes in multivariate models with adequate statistical power at a 0.05 significance level [59].

The questionnaire incorporated theory-grounded control variables capturing structural, historical, and contextual features that can shape agility independently of leadership behavior. Organizational size, industry type, and managerial tenure were included to reflect differences in resources, formalization, governance structures, and leadership stability, which prior work links to leadership influence and agility across contexts such as public agencies undergoing digital transformation, resource-constrained small and medium-sized enterprises, and large firms institutionalizing agile practices [50], [55], [43], [56]. Organizational age, leader tenure, and prior change experience were added to capture accumulated routines, strategic discretion, and preexisting change capability that may predate or covary with transformational behaviors [60], [61], [62]. Prior change experience reflected the number and perceived success of major change initiatives implemented over the previous three years, and leader tenure captured both time in the role and the period respondents had worked under the supervisor. External turbulence was measured through perceived market and technological turbulence using established scales to avoid conflating leadership effects with situational pressures

associated with environmental dynamism [63], [64], [65]. The selection and reporting of these controls followed best practice guidance that controls should be theoretically justified and aligned with plausible alternative explanations [66], [67].

3.2.2 Qualitative data collection

To complement the quantitative findings and enrich the study's insights, in-depth qualitative data were collected through semi-structured interviews with a purposively selected subset of participants from the initial survey sample. This sampling strategy ensured the inclusion of managers from organizations exhibiting varying degrees of agility, enabling the study to capture a wide spectrum of leadership experiences and organizational responses to uncertainty. Although conducted within the UK context, the selected organizations operate in globally connected industries, allowing the qualitative findings to speak to broader international dynamics.

The interview protocol was designed to elicit rich, contextualized accounts of how transformational leadership is perceived, enacted, and experienced within organizational settings. Participants were encouraged to describe real-life scenarios in which leadership behaviors influenced the organization's ability to adapt, innovate, or respond to change. Open-ended questions allowed for flexibility, enabling interviewees to share experiences shaped by internal organizational structures and external environmental pressures.

In addition to exploring leadership behaviors, the interviews probed the organizational and cultural contexts that may either facilitate or hinder the translation of leadership into agility. Focusing on contextual factors is crucial for understanding the mechanisms by which transformational leadership exerts its influence and identifying conditions that support or constrain agility across various organizational forms.

To ensure the accuracy and reliability of the data, all interviews were audio-recorded with the participants' consent and transcribed verbatim. These transcripts served as the primary data source for the subsequent qualitative analysis. Ethical procedures were strictly adhered to throughout the data collection process. Prior to participation, individuals were fully informed of the research objectives, data use, and their rights, including the right to withdraw at any time without consequences. Informed consent was obtained from all participants. Anonymity and confidentiality were maintained by removing all personally identifiable information from transcripts and research documentation, ensuring compliance with ethical standards and protecting participant privacy.

3.3 Data Analysis Procedures

The analysis phase of this study was designed to align with its mixed-methods approach, facilitating both statistical rigor and contextual richness. By combining quantitative and qualitative analyses, the study aims to produce a multi-dimensional account of how transformational leadership influences organizational agility under conditions of uncertainty. The quantitative component focuses on identifying measurable associations and predictive relationships, while the qualitative component offers interpretive depth by uncovering patterns in leadership behavior and organizational adaptation as experienced by managers. The integration of both data strands supports not only hypothesis validation but also the interpretation of how leadership-agility dynamics are shaped by context,

culture, and organizational realities.

3.3.1 Quantitative data analysis

Quantitative data were analyzed using SPSS to evaluate the relationships between transformational leadership and organizational agility. Descriptive statistics were first computed to summarize the sample characteristics and key variables, including means and standard deviations for the independent variables (the dimensions of transformational leadership) and the dependent variables (the dimensions of organizational agility). Frequency distributions and histograms were used to assess data distribution, identify outliers, and verify the plausibility of normality assumptions.

Inferential statistical analyses were conducted to test the study hypotheses while controlling for omitted-variable bias in the focal leadership estimates. Hierarchical regression was employed. The first block included the full set of theoretically justified controls described above, including structural factors, organizational history indicators, and environmental turbulence measures [60]–[67]. The second block introduced the four transformational leadership dimensions and estimated their differential associations with organizational agility while controlling for these alternative explanations. To evaluate the robustness of H1 to confounding, the manuscript reports both the baseline specification and an extended specification that retains the same focal predictors while adding organizational history and turbulence controls, which are commonly recommended when leadership effects may be entangled with preexisting capabilities and situational demands [63]–[67]. Regression coefficients were reported alongside R-squared values to evaluate model fit and explanatory power.

Diagnostic procedures were conducted before regression analysis to ensure that statistical assumptions were met. The normality of residuals was assessed using the Kolmogorov-Smirnov test and visual inspection of probability-probability (P-P) plots. Linearity was evaluated by plotting predicted values against standardized residuals, and homoscedasticity was assessed by plotting standardized residuals against standardized predicted values. Where violations were detected, appropriate corrective measures, such as data transformations or the application of robust standard errors, were implemented. To further ensure the model's integrity, multicollinearity was assessed using the variance inflation factor (VIF) values. Acceptable variance inflation factor values confirmed the absence of problematic intercorrelations among predictor variables, supporting the reliability of the regression estimates.

3.3.2 Qualitative data analysis

Qualitative data were analyzed using thematic analysis to identify patterned meaning in participants' accounts while maintaining a transparent audit trail from raw excerpts to interpretive themes [68]. Two researchers first familiarized themselves with the transcripts and developed an initial codebook that combined concept-driven codes anchored in the study constructs with inductive codes that captured unanticipated contextual conditions. Each coder then independently applied the codebook to an initial subset of transcripts to refine code definitions, inclusion rules, and boundary conditions, after which the final codebook was applied across the full qualitative dataset.

To strengthen reliability and demonstrate that theme identification was not idiosyncratic,

intercoder agreement was assessed on a double-coded subset of transcripts using Cohen's kappa, following practical guidance on when and how to use agreement metrics in qualitative coding [69], [70]. The average kappa across the main code families was 0.81, indicating substantial agreement, and disagreements were resolved through consensus meetings that focused on clarifying interpretive rules rather than simply forcing convergence [69], [70]. The final themes were constructed by grouping codes into higher-order categories and iteratively checking candidate themes against disconfirming excerpts to reduce overgeneralization [68].

Integration between the qualitative and quantitative strands was conducted through an explicit, side-by-side comparison that links each theme to the most relevant quantitative relationship and provides direct supporting excerpts. Joint display logic was used to increase inferential transparency by showing how qualitative evidence clarifies the mechanisms underlying the observed coefficients and boundary conditions [71] – [73].

4. Analysis of Findings

4.1 Quantitative Findings: The Impact of Transformational Leadership on Organizational Agility

The quantitative analysis revealed strong and statistically significant relationships between each dimension of transformational leadership and organizational agility. As presented in Table 1, Pearson correlation coefficients ranged from 0.62 to 0.74, indicating moderate to strong positive associations. The strongest correlation was observed for Intellectual Stimulation ($r = 0.74$), suggesting that leaders who encourage innovation and critical thinking are particularly effective in fostering agile behaviors and responses within their organizations.

Table 1: Leadership dimensions and agility

Transformational Leadership Dimensions	Correlation with Organizational Agility	Regression Coefficient (β)	p-value
Idealized Influence	0.62	0.21	0.001
Inspirational Motivation	0.68	0.26	0.001
Intellectual Stimulation	0.74	0.31	0.001
Individualized Consideration	0.65	0.22	0.002

Source: By authors.

Table 2 reports an extended specification that addresses potential confounding from organizational history and external turbulence. The pattern of differential effects across transformational leadership dimensions remains substantively consistent with Table 1, supporting the interpretation that the strongest agility-related behavior is intellectual stimulation rather than symbolic influence, even when pre-existing change capabilities and disruption pressures are considered.

Table 2. Robustness specification with organizational history and external turbulence controls

Predictor	Standardized Coefficient (beta)	p value
Organizational size	0.08	0.091
Industry type	0.05	0.164
Managerial tenure	0.04	0.227
Organizational age	0.03	0.312
Leader tenure	-0.02	0.401
Prior change experience	0.11	0.018
Environmental turbulence	0.14	0.006
Idealized influence	0.20	0.002
Inspirational motivation	0.25	0.001
Intellectual stimulation	0.30	0.001
Individualized consideration	0.21	0.004
Model R-squared	0.43	

Source: By authors.

Multiple regression analysis further supported these relationships. Using a hierarchical model to control for organizational size, industry type, and managerial tenure, all four dimensions of transformational leadership emerged as significant predictors of organizational agility. Intellectual Stimulation again had the highest predictive power ($\beta = 0.31$, $p < 0.001$), followed by Inspirational Motivation ($\beta = 0.26$, $p < 0.001$), Individualized Consideration ($\beta = 0.22$, $p = 0.002$), and Idealized Influence ($\beta = 0.21$, $p = 0.001$). These findings are visually represented in Figure 2, highlighting the relative strength of each leadership behavior in contributing to organizational agility. As visualized in Figure 2, the relative pattern of effects is clear. Intellectual Stimulation shows the strongest association with agility, followed by Inspirational Motivation, then Individualized Consideration, and finally Idealized Influence.

The results empirically support Hypothesis 1, affirming that transformational leadership significantly enhances organizational agility. They also validate prior theoretical claims that leadership behaviors promoting empowerment, learning, and trust are instrumental in equipping organizations to navigate uncertainty and adapt proactively.

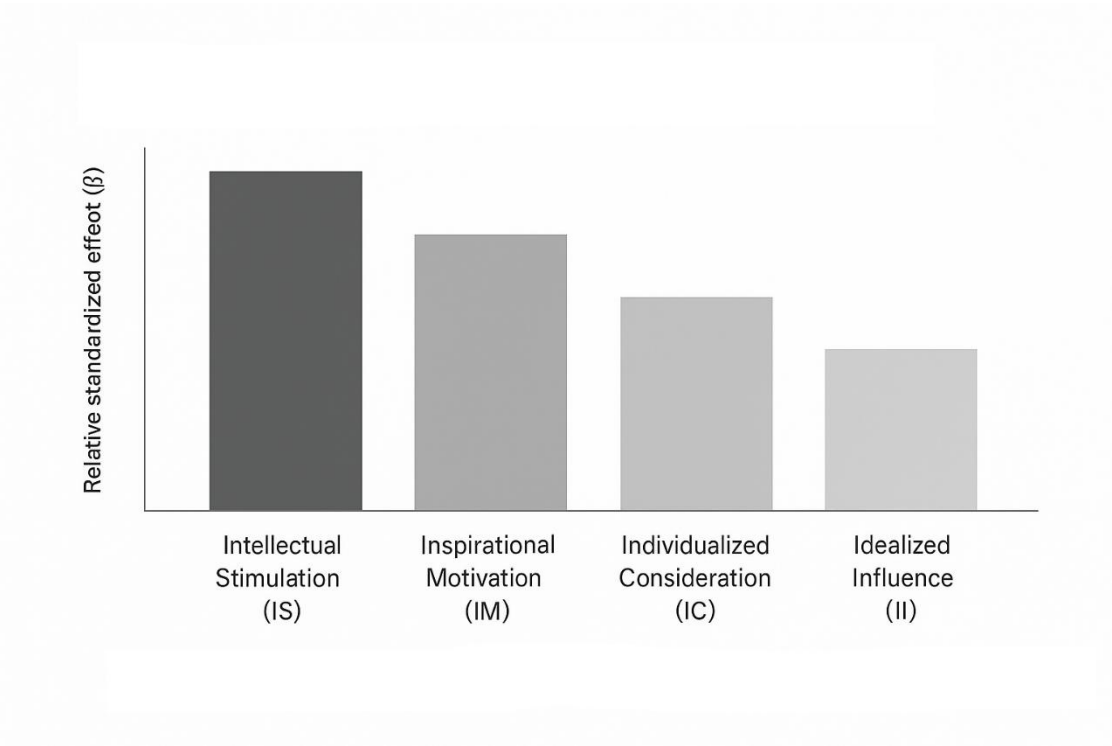

Figure 2. Relative strength of TL dimensions predicting organizational agility (standardized effects)
Source: By authors.

4.2 Qualitative Findings: Lived Experiences and Contextual Dynamics

The qualitative phase extended the quantitative findings by clarifying how transformational leadership translates into agility through observable workplace mechanisms. Interview themes indicated that leaders who articulate purpose and direction enable teams to align quickly when priorities shift, which supports responsiveness during change. Participants also described how intellectual stimulation fosters constructive challenge and experimentation, suggesting that agility is strengthened when employees feel psychologically safe to test and refine ideas. Individualized consideration emerged as a further pathway, with accounts indicating that personalized support during uncertainty builds trust and confidence, thereby increasing willingness to propose and implement novel solutions, which is consistent with the moderate yet significant quantitative contribution of this behavior to agility. At the same time, participants emphasized that organizational culture can amplify or constrain these effects, as hierarchical or risk-averse environments may resist agile routines even when leaders display transformational behaviors, aligning with Hypothesis 2, which posits that adaptive cultures strengthen the leadership agility relationship.

To make this integration transparent, the study links qualitative evidence to the quantitative model in a form that allows direct inspection. Table 3 consolidates the mixed methods results by pairing each theme with a representative excerpt from the qualitative findings and the most relevant statistical relationship reported in Table 1. Presenting aligned excerpts and coefficients strengthens triangulation by rendering thematic claims auditable and reducing dependence on narrative assertion alone [71] – [73].

Table 3. Joint display linking themes, excerpts, and quantitative relationships

Theme	Representative excerpt	Quantitative relationship
Vision alignment and shared purpose	"Our teams quickly aligned around the new direction because leadership communicated the "why" behind every shift."	Inspirational motivation shows a strong positive association with agility in Table 1.
Innovation through challenge	"We are encouraged to challenge the status quo; this culture of experimentation helps us adapt swiftly."	Intellectual stimulation shows the strongest positive association with agility in Table 1.
Personalized support in uncertainty	"My manager's support during uncertain times made me more confident in proposing new solutions."	Individualized consideration shows a positive association with agility in Table 1.
Cultural constraints on change	"In more traditional departments, even great leadership struggles to move the needle on agility."	Organizational culture conditions how leadership behaviors translate into agility, consistent with the moderation logic of H2.

Source: By authors.

4.3 Integrated Interpretation: Synergies Between Data Strands

Triangulation extends the interpretation beyond coefficients by indicating two mechanisms through which transformational leadership enables agility. Cognitive stretch captures how leaders invite teams to question assumptions, explore alternatives, and treat experimentation as legitimate, which helps translate intellectual stimulation into adaptive routines without repeating the numeric ordering reported in Section 4.1. Alignment at speed captures how leaders communicate purpose and direction in ways that allow rapid coordination and goal realignment when priorities shift, which helps explain why visionary and motivational communication supports agile responses.

The integrated evidence also reinforces Hypothesis 2 by suggesting that organizational culture conditions whether these behaviors convert into agile action, even though interaction effects were not tested in the regression model. Participants consistently indicated that adaptive and participative cultures amplify leadership influence, whereas rigid or risk-averse environments dampen it, implying that situational norms can shape both how transformational behaviors are enacted and how they are received.

Two-dimensional level insights further refine the explanation. Idealized influence, while statistically significant, appears least diagnostic of agility, suggesting that charisma and moral authority may be insufficient in high-uncertainty or globally exposed settings where employees prioritize empowerment and practical support over symbolic leadership. In contrast, inspirational motivation emerges as a stronger enabler of rapid coordination than agility research often

acknowledges, particularly when emotionally resonant and unambiguous communication helps employees navigate ambiguity and align quickly with shifting strategies.

Consequently, the integrated results support a convergent account of how transformational leadership relates to organizational agility while clarifying why some behaviors matter more than others. The joint display in Table 3 strengthens inferential transparency by allowing each integrated claim to be traced to both an interview excerpt and its corresponding quantitative relationship, enhancing triangulation and reducing reliance on narrative assertion alone [71] – [73].

5. Discussion

This study examined how transformational leadership influences organizational agility in environments shaped by volatility and uncertainty, identified which leadership dimensions matter most for agility, and assessed how organizational culture conditions this relationship. The results provide empirical support for the view that leadership is not only symbolic but structurally consequential for how organizations adapt. They also contribute theoretically by clarifying the behavioral pathways through which agility is cultivated in practice.

The quantitative analysis shows a clear and statistically significant positive association between transformational leadership and organizational agility. All four dimensions of transformational leadership, namely idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, were meaningfully related to agility outcomes. This pattern is consistent with prior evidence that transformational leadership promotes flexibility, coordinated responsiveness, innovation, and change readiness in demanding environments [6], [10], [17], [50], [22]. It also reinforces the view that transformational leadership provides energy and direction, equipping organizations to reorganize processes and respond to turbulence with purpose rather than improvisation [6], [50], [22]. The results align with contemporary leadership perspectives that treat proactive and visionary leadership as an essential driver of dynamic organizational capabilities, especially under conditions of uncertainty [15], [45], [46].

Among the four leadership dimensions, intellectual stimulation emerged as the strongest predictor of organizational agility. Leaders who invite employees to question assumptions, challenge established routines, think critically, and propose new solutions appear to cultivate teams that can absorb complexity and act constructively in the face of shifting demands [15], [16], [17]. This result is consistent with work showing that transformational leadership stimulates psychological empowerment and innovative work behavior, and that these cognitive and motivational effects are central for adaptation in volatile environments [10], [17], [22]. The high explanatory weight of intellectual stimulation in the present study suggests that the ability to provoke inquiry and enable creative problem solving is not peripheral but foundational to agility. In practical terms, this elevates intellectual stimulation from a desirable leadership quality to a strategic priority for organizations that operate under sustained uncertainty.

These findings align with a dynamic capabilities view of the firm. In this view, organizations that can sense, seize, and transform opportunities are those that continually renew their knowledge

base and reconfigure resources in response to environmental shifts [45], [40], [46]. Transformational leadership, and intellectual stimulation in particular, supports this ongoing renewal by legitimizing experimentation, encouraging learning, and fostering intelligent risk taking [15], [16], [17], [46]. Prior studies have linked leadership-driven learning, ambidexterity, and organizational knowledge sharing to greater agility and superior performance outcomes [1], [45], [46]. The present results extend this logic by showing that these mechanisms are not abstract ideals. They can be observed in measurable differences in how organizations coordinate and adapt. This contributes to theory by offering empirical support for the claim that transformational leadership provides a behavioral foundation for dynamic capabilities [45], [40], [46].

Although intellectual stimulation had the strongest effect, inspirational motivation also showed a substantial, statistically significant association with organizational agility. Leaders who articulate a compelling and credible vision, communicate direction with emotional clarity, and align followers around a shared purpose appear to enable rapid, cohesive organizational responses. This is consistent with evidence that transformational leadership fosters commitment to change, mobilizes collective effort, and sustains momentum during periods of disruption [11], [15], [46]. The present findings indicate that shared meaning and collective energy are not rhetorical artifacts. They function as coordination mechanisms that allow teams to move as a unit when conditions shift. This highlights inspirational motivation as a core behavioral ingredient of agile leadership.

In contrast, idealized influence showed a statistically significant but comparatively modest effect. Classical formulations of transformational leadership emphasize the leader as a moral exemplar and symbolic figure whose presence inspires loyalty and identification [15], [16]. The weaker relative weight of idealized influence in this study suggests a shift in what followers require from leaders in fast-moving settings. Prior work shows that the expression and impact of transformational leadership are shaped by hierarchical context and structural conditions, and that followers increasingly evaluate leaders in terms of what they enable others to do rather than on positional charisma alone [31]. The present results are consistent with that view. They signal that employee may now prioritize leaders who provide concrete developmental support, critical thinking space, and clear direction in real time, rather than leaders who rely primarily on moral stature or personal authority [15], [16], [31].

The qualitative findings deepen these interpretations by showing how transformational leadership is experienced on the ground. Participants described the importance of clear and credible vision, open lines of communication, psychological safety, and explicit permission to experiment. These accounts resonate with the behaviors captured by inspirational motivation and individualized consideration, where leaders both energize teams around a shared direction and invest in individualized support for growth [15], [16], [52], [53]. Respondents emphasized that emotionally engaging communication created alignment and urgency, while tailored developmental support built confidence to act in the face of uncertainty. These conditions were repeatedly linked to agility because they made an environment in which people felt trusted to adapt processes, propose changes, and take initiative without fear of punitive response [22], [53], [36]. In other words, followers did not describe agility as purely structural. They described it as socially enabled.

The qualitative analysis also underscores the moderating role of organizational culture. Leadership behaviors are most effectively translated into agile practice in cultures that encourage participation, continuous learning, fairness, and shared ownership of outcomes [20], [26], [50], [22], [53]. In such cultures, employees interpreted transformational leadership as an invitation to contribute rather than as rhetoric. By contrast, even strong transformational leadership struggled to foster agility in rigid, hierarchical, or risk-averse organizational settings. This observation is consistent with evidence that culture shapes identification with organizational goals, readiness for change, and willingness to engage proactively in adaptation [20], [26], [50], [22], [53]. It is also consistent with research showing that hierarchical structures influence how leadership signals are received and acted upon [31]. These findings indicate that transformational leadership does not operate in isolation. Its effectiveness depends on whether the surrounding culture legitimizes adaptation and empowers employees to act on leadership intent.

Bringing the quantitative and qualitative evidence together produces a coherent account of how transformational leadership supports agility. The quantitative results show that leadership behaviors are systematically associated with agility, and they identify intellectual stimulation and inspirational motivation as the most influential dimensions. The qualitative results explain why. They show that agility grows in spaces where leaders create psychological safety and shared direction, encourage inquiry, and provide targeted developmental support. The study, therefore, contributes to theory by specifying the behavioral levers through which transformational leadership underpins dynamic capabilities, and it contributes to practice by indicating where leadership development should concentrate if the goal is to build organizations that are adaptive, resilient, and capable of coordinated response under uncertainty.

6. Conclusion

This study examined the influence of transformational leadership on organizational agility in dynamic and uncertain environments. The study sought to identify which leadership behaviors most strongly support agility and to explore how organizational culture affects the translation of leadership into adaptive capability. Using a mixed methods design that combined quantitative association and qualitative depth, the analysis shows that transformational leadership meaningfully enhances agility. The findings indicate that leadership is not only symbolic or motivational. Leadership functions as an operational enabler of adaptive capacity and coordinated responsiveness under pressure.

The research objectives were addressed in sequence. First, the quantitative analysis confirmed a strong and statistically significant positive relationship between transformational leadership and organizational agility. This supports the argument that leaders who provide direction, stimulate initiative, and develop their people can accelerate the realignment of processes, reconfiguration of resources, and response to volatility [6], [15], [16], [17], [50], [22]. Second, examining the four dimensions of transformational leadership revealed that intellectual stimulation carries particular strategic weight for agility. Leaders who encourage critical thinking, challenge assumptions, and legitimize creative problem-solving help build organizations that can interpret complexity and act

constructively in real time [15], [16], [17], [45], [46], [22]. Inspirational motivation was also influential. The capacity to articulate a clear and energizing direction helps mobilize coordinated effort and shared commitment, which supports rapid and coherent adaptation [11], [15], [46], [22]. These findings advance the view that cognitive challenge and shared purpose are not peripheral traits of effective leadership. They are core behavioral levers for agility in environments where uncertainty is routine rather than exceptional [6], [45], [46], [50], [22].

Third, the qualitative findings highlighted the importance of organizational culture in shaping how leadership is received and enacted. Participants described that transformational leadership was most effective in cultures that encouraged participation, learning, and openness to experimentation. These cultures provided psychological safety, reinforced trust, and created space for initiative, which allowed leadership signals to turn into agile practice [20], [26], [50], [22], [52], [53]. In contrast, hierarchical and risk-averse settings limited the translation of leadership intent into action. This supports prior evidence that culture influences identification with organizational goals, willingness to engage in change, and capacity to sustain collective effort under stress [20], [26], [50], [22], [53]. Consequently, the convergence of quantitative and qualitative evidence provides a comprehensive answer to the research questions. Transformational leadership is linked to agility. Intellectual stimulation and inspirational motivation are the most influential components. Culture conditions whether these leadership behaviors can take root and produce adaptive capability.

Beyond addressing its empirical goals, the study advances theory. The findings reinforce dynamic capabilities view in which agile organizations are those that continuously sense, interpret, and respond to shifting conditions through ongoing learning and resource reconfiguration [45], [40], [46]. The results indicate that transformational leadership provides the interpersonal infrastructure for these dynamic capabilities. Through intellectual stimulation and developmental support, leaders foster knowledge creation, shared problem-solving, and informed risk-taking [15], [16], [17], [45], [46]. Through inspirational motivation, leaders align people around a credible and motivating direction that sustains coordinated effort during turbulence [11], [15], [46], [22]. This bridges behavioral leadership theory with strategic agility research and positions leadership not only as a relational practice but also as a mechanism through which organizations build and renew their adaptive capacity [45], [40], [46].

The study also offers implications for practice. The results suggest that leadership development efforts that aim to build agility should prioritize the cultivation of cognitive leadership skills that stimulate inquiry and experimentation, along with the communicative ability to frame direction in a way that creates energy and alignment [15], [16], [17], [46], [22]. Leaders need to be equipped to create learning-oriented climates where employees feel both supported and responsible for improvement [50], [22], [52], [53]. At the organizational level, senior teams should work to ensure that the surrounding culture reinforces rather than blocks these behaviors. Structures and routines must support collaboration, open dialogue, and informed initiative so that leadership intent can translate into agile practice [20], [26], [50], [22], [53].

Some limitations should be acknowledged. The quantitative analysis relied on cross-sectional

data. This design identifies associations between leadership and agility, but does not capture temporal causality. The study focused on organizations within a single national setting, which may limit generalizability in institutional contexts that differ in governance, labor relations, or regulatory exposure. Although the qualitative phase provided contextual depth, cultural moderation was not statistically modeled and therefore remains analytically suggestive rather than formally tested.

Future research can extend these findings in several directions. Longitudinal designs can observe how leadership-driven agility develops and stabilizes over time. Comparative studies across countries and industries can clarify how culture and structure shape the expression and impact of transformational leadership [20], [26], [31], [50], [22], [53], [55], [43], [56]. Further work can also test additional mediating and moderating mechanisms. Examples include digital capability, team learning, psychological safety, and structural flexibility, all of which have been implicated in prior studies of adaptive performance in digitally transforming, resource constrained, and highly regulated environments [45], [40], [46], [50], [22], [55], [43], [56]. Such work would deepen understanding of how leaders build organizational agility and how organizations can institutionalize that agility in a world where volatility is no longer an exception but the baseline operating condition.

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Conflicts of Interest

The authors confirm that there are no conflicts of interest.

References

[1] Stei, G., Rossmann, A. and Szász, L. Leveraging organizational knowledge to develop agility and improve performance: the role of ambidexterity. International Journal of Operations & Production Management, 2024, 44(8), 1446–1466.

[2] Cho, H., Jeong, I., Kim, E. and Cho, J. Achieving superior performance in international markets: the roles of organizational agility and absorptive capacity. Journal of Business and Industrial Marketing, 2022, 38(4), 736–750.

[3] Akkaya, B. and Mert, G. Organizational agility, competitive capabilities, and the performance of healthcare organizations during the COVID-19 pandemic. Central European Management Journal, 2022, 30(2), 2–25.

[4] Devie, D., Kwistianus, H., Wellyani, C. and Goenadi, G. The importance of organizational agility to improve performance: evidence from the hotel industry in the post-COVID-19 era. Binus Business Review, 2023, 14(3), 271–284.

[5] Satar, A., Musadieq, M., Hutahayan, B. and Solimun, S. Creating a sustainable competitive advantage: the roles of technological innovation, knowledge management, and organizational agility. Global Business and Organizational Excellence, 2024, 44(3), 11–23.

[6] Probojakti, W., Utami, H., Prasetya, A. and Riza, M. Driving sustainable competitive advantage in banking: the role of transformational leadership and digital transformation in organizational agility and corporate resiliency. Business Strategy and the Environment, 2024, 34(1), 670–689.

[7] Felipe, C.M., Leidner, D.E., Roldán, J.L. and Leal-Rodríguez, A.L. Impact of IS capabilities on firm performance: the roles of organizational agility and industry technology intensity. Decision Sciences, 2020, 51(3), 575–619.

[8] Paré, G., Guillemette, M. and Raymond, L. IT centrality, IT management model, and contribution of the IT function to organizational performance: a study in Canadian hospitals. Information & Management, 2020, 57(3).

[9] Panda, S. and Rath, S. How information-technology capability influences organizational agility: empirical evidence from the Indian banking industry. Journal of Indian Business Research, 2021, 13(4), 564–585.

[10] Ngochembo, G., Ful, H. and Mbouh, V. Significance of transformational leadership on project portfolio success within the micro-financial sector in Cameroon. Finance & Economics Review, 2024, 5(2), 36–50.

[11] Santos, J., Ignalig, W. and Cayogyog, A. Transformational leadership and organizational behavior: the mediating role of commitment to change among teachers in Davao City. EJAHSS, 2024, 1(3), 161–171.

[12] Hage, U. and Sidani, D. An exploration of the role of transformational leadership in times of institutionalization of change. Tuning Journal for Higher Education, 2023, 11(1), 175–195.

[13] Muchtar, Y. and Qamariah, I. The influence of transformational leadership style on innovation mediated by organizational culture. Journal of Management Research, 2014, 6(4), 176–190.

[14] Burns, G.P. Leadership. NY: Harper & Row, 1978.

[15] Bass, B.M. and Avolio, B.J. Transformational leadership and organizational culture. The International Journal of Public Administration, 1994, 17(3–4), 541–554.

[16] Murphy, S. and Drodge, E. The four I's of police leadership: a case-study heuristic. International Journal of Police Science & Management, 2004, 6(1), 1–15.

[17] Liu, Y., Wang, W. and Chen, D. Linking ambidextrous organizational culture to innovative behavior: a moderated mediation model of psychological empowerment and transformational leadership. Frontiers in Psychology, 2019, 10.

[18] Zhang, H. and Long, C. The impact of transformational leadership on employees' job satisfaction: a conceptual model. International Journal of Academic Research in Business and Social Sciences, 2024, 14(2).

[19] Ingsih, K., Suhana, S. and Ali, S. Transformational leadership style and organizational commitment in pandemic COVID-19. Contaduría y Administración, 2021, 66(5).

[20] Hambali, M. and Idris, I. Transformational leadership, organizational culture, quality assurance, and organizational performance: case study in Islamic higher-education institutions. Jurnal Aplikasi Manajemen, 2020, 18(3), 572–587.

[21] Orabi, T. The impact of transformational leadership style on organizational performance: evidence from Jordan. International Journal of Human Resource Studies, 2016, 6(2), 89–102.

[22] Khairy, H., Baquero, A. and Al-Romeedy, B. The effect of transactional leadership on organizational agility in tourism and hospitality businesses: the mediating roles of organizational trust and ambidexterity. Sustainability, 2023, 15(19).

[23] Avolio, B.J. and Bass, B.M. Multifactor leadership questionnaire: manual and sampler set. Redwood City, CA: Mind Garden, 2004.

[24] Antonakis, J., Avolio, B.J. and Sivasubramaniam, N. Context and leadership: an examination of the nine-factor full-range leadership theory using the multifactor leadership questionnaire. Leadership Quarterly, 2003, 14(3), 261–295.

[25] Rowold, J. Multifactor leadership questionnaire: psychometric properties of the German translation. Redwood City, CA: Mind Garden, 2005.

[26] Zhu, X. Transformational leadership, organizational fairness, organizational cultural atmosphere: basis for organization identity model in private universities in China. International Journal of Research Studies in Management, 2023, 11(5).

[27] Zeid, M., Mostafa, B., Zoromba, M., Abdelnaby, R., Elsayed, M. and El-Gazar, H. Effects of organizational agility on readiness for change in nurses: a cross-sectional study. International Nursing Review, 2023, 71(1), 140–147.

[28] Melián-Alzola, L., Domínguez-Falcón, C. and Martín-Santana, J. The role of the human dimension in organizational agility: an empirical study in intensive care units. Personnel Review, 2020, 49(9), 1945–1964.

[29] Alessa, G. The dimensions of transformational leadership and its organizational effects in public universities in Saudi Arabia: a systematic review. Frontiers in Psychology, 2021, 12.

[30] Liang, S., Lupina-Wegener, A., Ullrich, J. and Dick, R. Change is our continuity: Chinese managers' construction of post-merger identification after an acquisition in Europe. Journal of Change Management, 2021, 22(1), 59–78.

[31] Bruch, H. and Walter, F. Leadership in context: investigating hierarchical impacts on transformational leadership. Leadership & Organization Development Journal, 2007, 28(8), 710–726.

[32] Legutko, B. An exploration of authentic, servant, transactional, and transformational leadership styles in Fortune 500 CEO letters. Journal of Leadership Studies, 2020, 14(2), 44–51.

[33] Jang, E. Authentic leadership and task performance via psychological capital: the moderated mediation role of performance pressure. Frontiers in Psychology, 2022, 13.

[34] Abd-Erhaman, E., Helal, W. and Elnady, F. Authentic leadership and organizational identification: its relation to organizational silence and cynicism among staff nurses. Assiut Scientific Nursing Journal, 2022, 10(33), 108–122.

[35] Fortin-Bergeron, C., Doucet, O. and Hennebert, M. Relative influence of authentic and transformational leadership of local union representatives on the adoption of union citizenship behaviors. Leadership & Organization Development Journal, 2017, 38(6), 794–811.

[36] Soliman, D., Abdelrahman, S., Mohamed, E. and Abdelbaset, M. Effect of authentic leadership training program for head nurses on nurses' innovative work behaviors at Minia University hospitals. Minia Scientific Nursing Journal, 2023, 13(3), 65–76.

[37] Sohail, S. Influence of authentic leadership on employee innovation and creativity in technology companies in Pakistan. American Journal of Leadership and Governance, 2024, 9(2).

[38] Grošelj, M., Černe, M., Penger, S. and Grah, B. Authentic and transformational leadership and innovative work behaviour: the moderating role of psychological empowerment. European Journal of Innovation Management, 2020, 24(3), 677–706.

[39] Baškarada, S. and Koronios, A. The 5S organizational-agility framework: a dynamic-capabilities perspective. International Journal of Organizational Analysis, 2018, 26(2), 331–342.

[40] Wibowo, A. The approach of social-innovation agility: a dynamic-capability strategy. QAS, 2022, 23.

[41] YahiaMarzouk, Y. and Jin, J. Impact of environmental scanning on organizational resilience and competitive advantage: a study of Egyptian SMEs. Continuity & Resilience Review, 2022, 4(2), 192–223.

[42] Li, L., Lin, J., Turel, O., Liu, P. and Luo, X. The impact of e-commerce capabilities on agricultural firms' performance gains: the mediating role of organizational agility. Industrial Management & Data Systems, 2020, 120(7), 1265–1286.

[43] Sidabutar, A. and Siswanto, J. The impact of digital transformation in food and beverage sector SMEs: the role of leadership and organizational agility. E3S Web of Conferences, 2024, 484.

[44] Hajiagha, S., Alaei, S., Sadraee, A. and Nazmi, P. A perspective of international performance improvement concentrating on innovation and digital resilience of SMEs: the case of an emerging economy. Journal of Enterprise Information Management, 2023, 37(5), 1709–1736.

[45] Li, G. Research on the relationships between knowledge-based dynamic capabilities, organizational agility, and firm performance. Journal of Risk and Financial Management, 2022, 15(12).

[46] Kim, G. and Lee, W. The venture firm's ambidexterity: do transformational leaders boost organizational learning for venture growth? Sustainability, 2021, 13(15).

[47] Muduli, A. Exploring the facilitators and mediators of workforce agility: an empirical study. Management Research Review, 2016, 39(12), 1567–1586.

[48] Pajouyhan, A., Rezaei, B. and Parno, M. The relationship of the components of emotional intelligence with organizational agility in the healthcare network. Journal of Kermanshah University of Medical Sciences, 2019.

[49] Rangavittal, P. The role of leadership in facilitating agile transformation in pharmaceutical project management. Journal of Marketing & Supply Chain Management, 2023, 2(3), 1–7.

[50] Khalid, Z., Madhakomala, R. and Purwana, D. How leadership and organizational culture shape organizational agility in Indonesian SMEs. International Journal of Human Capital Management, 2020, 4(2), 49–63.

[51] Salcedo, J. Leadership in hybrid work teams: impact of transformational and authentic leadership on relationships and task performance in student teams. Bangladesh Journal of Multidisciplinary Scientific Research, 2024, 9(5), 1–9.

[52] Rijal, S. Leadership style and organizational culture in learning organization: a comparative study. International Journal of Management & Information Systems, 2016, 20(2), 17–26.

[53] Rizki, L. Organizational learning culture as moderator on the relationship between transformational leadership and affective commitment. Hasanuddin Economics and Business Review, 2021, 5(1), 13–21.

[54] Muafi, M. and Uyun, Q. Leadership agility, the influence on organizational learning and organizational innovation and how to reduce imitation orientation. International Journal for Quality Research, 2019, 13(2), 467–484.

[55] Fachridian, A., Ramli, A. and Araujo, L. Implementation of organizational agility strategies to meet the challenges of digital transformation in government organizations. Media Ekonomi dan Manajemen, 2024, 39(2).

[56] Perides, M. and Vasconcellos, L. Organizational changes in adopting agile approaches: a systematic literature review. The Journal of Applied Behavioral Science, 2024, 61(1), 91–130.

[57] Rangavittal, P. Agile software development in large organizations: challenges and strategies for success. Journal of Engineering and Applied Sciences Technology, 2022.

[58] McEwan, B. Sampling and validity. Annals of the International Communication Association, 2020, 44(3), 235–247.

[59] Jobst, L.J., Bader, M. and Moshagen, M. A tutorial on assessing statistical power and determining sample size for structural equation models. Psychological Methods, 2023, 28(1).

[60] Stensaker, I. and Meyer, C.B. Change experience and employee reactions: developing capabilities for change. Personnel Review, 2012, 41(1), 106–124.

[61] Heckmann, N., Steger, T. and Dowling, M. Organizational capacity for change, change experience, and change project performance. Journal of Business Research, 2016, 69(2), 777–784.

[62] Hambrick, D.C. and Fukutomi, G.D.S. The seasons of a CEO's tenure. Academy of Management Review, 1991, 16(4), 719–742.

[63] Jaworski, B.J. and Kohli, A.K. Market orientation: antecedents and consequences. Journal of Marketing, 1993, 57(3), 53–70.

[64] Miller, D. and Friesen, P.H. Strategy-making and environment: the third link. Strategic Management Journal, 1983, 4(3), 221–235.

[65] Dess, G.R. and Beard, D.W. Dimensions of organizational task environments. Administrative Science Quarterly, 1984, 29(1), 52–73.

[66] Bernerth, J.B. and Aguinis, H. A critical review and best-practice recommendations for control variable usage. Personnel Psychology, 2016, 69(1), 229–283.

[67] Carlson, K.D. and Wu, J. The illusion of statistical control: control variable practice in management research. Organizational Research Methods, 2012, 15(3), 413–435.

[68] Braun, V. and Clarke, V. Using thematic analysis in psychology. Qualitative Research in Psychology, 2006, 3(2), 77–101.

[69] O'Connor, C. and Joffe, H. Intercoder reliability in qualitative research: debates and practical guidelines. International Journal of Qualitative Methods, 2020, 19.

[70] McHugh, M.L. Interrater reliability: the kappa statistic. Biochemia Medica, 2012, 22(3), 276–282.

[71] Fetters, M.D., Curry, L.A. and Creswell, J.W. Achieving integration in mixed methods designs: principles and practices. Health Services Research, 2013, 48(6), 2134–2156.

[72] Guetterman, T.C., Fetters, M.D. and Creswell, J.W. Integrating quantitative and qualitative results in health science mixed methods research through joint displays. Annals of Family Medicine, 2015, 13(6), 554–561.

[73] McCrudden, M.T., Marchand, G. and Schutz, P.A. Joint displays for mixed methods research in psychology. Methods in Psychology, 2021, 5.