

RESEARCH ARTICLE

An international spatial perspective of upper echelons: A review and research agenda

Isabel Gausi-Carot, Ana Botella-Andreu and Ana García-Granero 

Department of Management 'Juan José Renau Piqueras', Fac. Economía, Av. Naranjos, s/n., Universitat de València, Valencia, Spain

Corresponding author: Ana García-Granero; Email: ana.garcia-granero@uv.es

(Received 25 September 2025; revised 31 March 2026; accepted 31 March 2026)

Abstract

As organizations expand globally, the spatial distribution of top management teams (TMTs) across regions becomes increasingly prevalent. This paper aims to review the diverse literature on the geographic dimensions of teams (collocation, dispersion, and virtuality), and more specifically, the spatial configuration of upper echelons. Several studies explore the composition of TMTs, the diversity of their members, and their influence on firms' strategic choices. However, the international location of TMT members remains largely overlooked. We conduct a systematic literature review that draws on spatial theory and the upper echelons approach. The results allow the development of a conceptual framework that integrates research related to the spatial dimensions of TMTs. The purpose is to contribute to a better understanding of how the spatial configuration of TMTs influences strategic leadership processes in geographically dispersed organizational contexts. We discuss the implications of this spatial perspective of upper echelons and propose potential avenues for future research.

Keywords: top management teams; geographic dispersion; executive spatial configuration; strategic leadership; upper echelons; systematic literature review

Introduction

Digital transformation has revolutionized global connectivity, bringing the power to unite people and ideas, and in this way, facilitating unprecedented levels of interconnection across the world. The evolution of technology in present times is breaking down borders and boundaries, enabling a seamless and interconnected global environment (Vial, 2019). As a result, collaboration among employees in diverse locations and in real time has become significantly more streamlined, allowing tasks to be increasingly performed remotely (Kargina, 2023). Building on these developments, technological advancements have further facilitated the modularization of work, enhancing the coordination of different activities across various locations and contributing to a shift toward more fluid organizational models (Birkinshaw, 2022). In digitally mediated environments, firms may increasingly rely on geographically distributed but organizationally bounded coordination mechanisms when managing international activities (Botella-Andreu, Pla-Barber & Rocafull, 2025). Such arrangements highlight how spatial distribution may expand access to locally embedded knowledge while simultaneously constraining integration and coordination across dispersed organizational units.

The physical dispersion of employees as well as members of teams is a reality that encourages analyzing the effects that these new situations are having on companies (Caligiuri, De Cieri, Minbaeva, Verbeke & Zimmermann, 2020; O'Leary & Mortensen, 2010). Research on distance and proximity

between teams has been a prolific area of study (O'Leary & Cummings, 2007). Specifically, investigations into physical distances reveal their impact on interactions, communication frequency, and friendships (Festinger, 1950; Monge, Rothman, Eisenberg, Miller & Kriste, 1985). At the same time, researchers in the field also point to the potential detrimental effects of team members being geographically dispersed, such as increased conflict (Mortensen & Hinds, 2001). In parallel, with the flourishing of communication technologies, teams become virtual to facilitate around-the-clock work and to allow the most qualified individuals to be assigned to a project team. As such dispersion increases, virtual teams (VTs) tend to experience even greater and more diverse conflict compared to collocated teams (CTs) (Wakefield, Leidner & Garrison, 2008).

Extending this discussion to the executive level, top management teams (TMTs) represent a key team within organizations since strategic outcomes of an organization are driven by their decision-making (Hambrick & Mason, 1984). Previous studies have provided a broad overview of the field on TMT structure (Hambrick & Cannella, 2004; Hambrick, Humphrey & Gupta, 2015; Li, Xin, Tsui & Hambrick, 1999), composition (Carpenter, Geletkanycz & Sanders, 2004; Hambrick, 1994), and diversity (Hambrick, Cho & Chen, 1996; Lubatkin, Simsek, Ling & Veiga, 2006; Wiersema & Bantel, 1992). Accordingly, contributions to this line of thought consider the role of diversity and conflict as important drivers of team and firm performance (Diaz-Fernandez, Gonzalez-Rodriguez & Simonetti, 2020; Garcia-Granero, Fernandez-Mesa, Jansen & Vega-Jurado, 2018). Nonetheless, despite the efforts that have been dedicated to demographic, cognitive and, recently, psychological profile diversity (Kristinsson, Candi & Saemundsson, 2016; McHugh & Duane, 2025), few articles mention the challenges of TMT geographic dispersion as a characteristic of the team (Cannella, Park & Lee, 2008). Considering the current environment, the impact of digitalization, and the need to form diverse teams, our work focuses on integrating the geographical dispersion of TMTs as a new central element to be considered. This focus is consistent with recent research guidelines that explicitly call for examining TMT member co-location versus geographic dispersion, and for assessing how such spatial configurations shape strategic choices and organizational outcomes (Cuypers, Patel, Ertug, Li & Cuypers, 2022). However, despite this call, existing research on TMT spatial configurations remains fragmented across multiple literature streams and relies on heterogeneous conceptualizations of dispersion and virtuality and offers limited cumulative insights. This fragmentation underscores the need for a systematic synthesis of prior work.

This gap is particularly salient in multinational organizations, where the international distribution of subsidiaries and business units often results in TMTs operating across multiple locations. In such contexts, the geographic distribution of executives is not just a logistical feature but may shape how strategic decisions are formulated, interpreted, and implemented across organizational units. While spatial dispersion may expand access to geographically embedded expertise and local market knowledge, it may simultaneously constrain coordination capacity and alignment across organizational units. As such, executive spatial configuration may introduce competing strategic demands that influence both the integration of distributed knowledge and the consistent implementation of strategic initiatives across locations. However, insights regarding the drivers and implications of TMT spatial configurations are dispersed across studies focusing on geographically distributed collaboration more broadly, limiting cumulative understanding of how executive interaction unfolds across spatial boundaries.

To address this limitation, we conduct a systematic literature review that integrates spatial theory and the upper echelons perspective in order to examine the antecedents and organizational implications of TMT spatial configuration. By synthesizing insights from research on collocated, geographically dispersed, and virtual teams, this study conceptualizes executive spatial configuration as a structural condition that influences how top managers interpret environmental information, integrate geographically distributed expertise, and coordinate strategic initiatives across locations.

Against this background, our study makes several contributions to TMT literature. First, we provide a systematic synthesis of 51 studies examining the spatial dimensions of TMTs published up to 2025, thereby advancing understanding of how the geographic distribution of executives

shapes strategic leadership processes. Second, we integrate insights from the dispersed team (DT) literature with upper echelons theory to identify the multilevel antecedents, mechanisms, and organizational outcomes associated with executive spatial configurations. Third, by conceptualizing spatial configuration as a design dimension of TMTs, we develop a framework capturing three spatial arrangements, collocation, dispersion, and virtuality, and their implications for decision formulation and implementation across geographically distributed organizational units.

Theoretical backgrounds

Spatial dimensions: definitions and types

The conceptualization of spatial dimensions has been a topic of research in the fields of physics, geology, geography, or even neurology. In the scope of business and economics, the vast literature is referred to the different locations of resources and capabilities within firms' networks, such as multinational locations and operational activities (Yu & Cannella, 2007). In the field of international business, spatial dimensions are typically perceived as an inherent cost of international activities. This perception stems from the understanding that greater distances lead to increased communication costs and necessitate additional coordination efforts (Dunning, 2001). Consequently, conventional literature posits that spatial dimensions, synonymous with distance, introduce friction and complexity into international activities (Hutzschenreuter, Kleindienst & Lange, 2016; Vermeulen & Barkema, 2002). More recently, economic geography perspectives emphasize the potential benefits of proximity and co-location, suggesting that physical arrangements may influence knowledge flows, collaboration, and decision-making (Castellani & Lavoratori, 2020).

The term 'spatial dimension' refers to the physical location, distribution, and configuration of elements in a given space. In organizational contexts, this includes how individuals, teams, and resources are physically positioned and coordinated within a workspace. An explicit definition of spatial dimension can be found in O'Leary and Cummings (2007, p.434), where it is defined as 'the average spatial distance among team members', and moreover defines the spatial configuration as 'the number of sites at which members are located, their isolation from other members, and the balance between subgroups of members across sites'.

Considering these definitions, we can identify two main spatial dimensions depending on the position of the team members. Therefore, if members work at the same site, we could say that they are collocated (Cannella et al., 2008), and if they work at different sites, we could say that they are dispersed (O'Leary & Cummings, 2007). Accordingly, we introduce these two dimensions: collocation and dispersion. Furthermore, digital transformation has impacted the spatial dimension of some teams, thus emerging a new type of team: VTs. Jarvenpaa and Leidner (1999, p.1) defined them as teams whose 'members are separated by location and culture, challenged by a common collaborative project, and for whom the only economically and practically viable communication medium was asynchronous and synchronous computer-mediated communication'. Specifically, a team is considered virtual when 'the members of the team are geographically dispersed and the team relies on technology-mediated communications rather than face-to-face interaction to accomplish their tasks' (Gibson & Cohen, 2003, p. 4).

Several studies argue that the distinction between the three dimensions is unrealistic (Kirkman, Rosen, Tesluk & Gibson, 2004) since some CTs alternate face-to-face to virtual communication and moreover, globally DTs that use technology to communicate have regularly face-to-face meetings. Nevertheless, other studies (Cramton, 2001; Hinds & Bailey, 2003; Maznevski & Chudoba, 2000; O'Leary & Cummings, 2007) base their research on the main differences depending on the location of team members, accordingly if they are located at the same site (collocated), at different site (dispersed) or frequently use technology to communicate and rarely meet in-person (virtual).

Table 1 provides a conceptual overview of the terminology and definitions used to describe team spatial configurations in the broader literature. Its purpose is to clarify definitional heterogeneity and establish a common vocabulary for the review. Each row in Table 1 corresponds to a specific term used

Table 1. Conceptual overview of team spatial dimensions and terminology

Spatial dimension	Term used	Core definition	Typical context	Representative studies
Collocation	CTs	Teams whose members are physically located in the same building or site, enabling regular face-to-face interaction	GW teams and project-based teams; some application to TMTs	Ragatz et al. (1997); Jarvenpaa and Leidner (1999); Mortensen and Hinds (2001); Polzer et al. (2006); Cannella et al. (2008); Sidhu and Volberda (2011)
	Face-to-face teams	Teams whose members work in the same physical location and interact primarily through in-person, face-to-face communication	GW teams and project-based teams; rarely examined in TMT contexts	Warkentin et al. (1997); Jarvenpaa and Leidner (1999); Cramton (2001); Hinds and Bailey (2003); Kirkman et al. (2004); De Jong et al. (2016)
	Traditional teams	Teams whose members are physically co-present and rely on conventional, in-person communication rather than electronic or virtual interaction	Early comparative studies contrasting traditional (collocated) teams with emerging VTs; not specifically focused on TMTs	Warkentin et al. (1997)
	Physical proximity	The extent to which team members are physically co-present and work in close physical distance at the same location	Used as a spatial attribute of teams in studies of communication, coordination, and conflict; applied to both GW teams and, in some cases, TMTs	Amason (1996); Jarvenpaa and Leidner (1999); Maznevski and Chudoba (2000); Mortensen and Hinds (2001); Polzer et al. (2006); Hu et al. (2017)
	Inside teams	Teams composed of members located in the same organization who collaborate on shared tasks, projects, or goals	Used in studies of organizational collaboration and coordination; limited evidence in TMT settings	Hambrick and Mason (1984); Hu et al. (2017)
	Onshore teams	Teams whose members are located in the same country as the organization's headquarters or main project site	Primarily used in studies of geographically distributed organizations and project management; rarely applied to TMTs	Sidhu and Volberda (2011)
Dispersion	DTs	Teams whose members are physically located in different geographic areas and collaborate across distances	Used in studies of distributed, remote, or global teams; limited evidence in TMT settings	Jarvenpaa and Leidner (1999); Cramton (2001); Polzer et al. (2006); O'Leary and Cummings (2007); Sidhu and Volberda (2011); Gonzalez-Loureiro et al. (2014)
	Distributed teams	Teams whose members are located across multiple cities, regions, countries, or continents, collaborating across geographic distances	Used in studies of globally distributed or multinational teams; limited evidence in TMT settings	Maznevski and Chudoba (2000); Cramton (2001); Mortensen and Hinds (2001); Hinds and Bailey (2003); Hinds and Mortensen (2005); Sidhu and Volberda (2011)
	Remote teams	Teams whose members do not share the same physical workspace and collaborate from separate locations	Used in studies of distributed or VTs in organizational and project-based settings; limited application TMTs	Warkentin et al. (1997); Jarvenpaa and Leidner (1999); Maznevski and Chudoba (2000); Mortensen and Hinds (2001)

(Continued)

Table 1. (Continued.)

Spatial dimension	Term used	Core definition	Typical context	Representative studies
	Non-CTs	Teams whose members collaborate on tasks or projects without sharing the same physical location	Used in studies of geographically distributed teams and virtual collaboration; limited evidence in TMT contexts	Haque and Pawar (2001); Hinds and Bailey (2003)
	Global teams	Teams whose members are geographically distributed across multiple countries and continents	Used in studies of multinational, cross-border, or global teams; limited evidence in TMT settings	Salomo et al. (2010); Gonzalez-Loureiro et al. (2014); Ambos et al. (2016); Presbitero and Teng-Calleja (2019); da Silva et al. (2022); Mattarelli et al. (2022)
	Outside	Teams whose members collaborate on organizational tasks or projects while being external to the organization	Used in studies of cross-organizational collaboration, consulting, or project-based partnerships; rarely applied to TMTs	Hambrick and Mason (1984)
	Offshore teams	Teams whose members collaborate on tasks or projects while located in a different country or region than the organization’s headquarters or main project site	Used in studies of multinational organizations and geographically distributed projects; limited application to TMTs	Sidhu and Volberda (2011)
Virtuality	VTs	Teams whose members are geographically dispersed and collaborate primarily through technology, without regular face-to-face interaction	Used in studies of distributed, electronically mediated teams across organizational and project settings; limited evidence in TMT contexts	Kirkman et al. (2004); Costa, Fulmer and Anderson (2018); Moosa, Pearson and Mthombeni (2023); Vuchkovski, Zalaznik, Mitrega and Pfajfar (2023)
	GVTs	Teams whose members are geographically dispersed, make or implement decisions important to the organization’s global strategy, and rely primarily on technology-mediated communication rather than face-to-face interaction	Used in studies of multinational and global strategic teams; evidence directly involving TMTs is limited but more relevant than general VTs	Jarvenpaa and Leidner (1999); Maznevski and Chudoba (2000); Gilson, Maynard, Young, Vartiainen and Hakonen (2015); De Jong et al. (2016); Davaei, Gunkel, Veglio and Taras (2022)

in the literature to describe team spatial configurations. The first column reports the term employed by authors, the second column provides its core definition as articulated or implied in the original studies, the third column identifies the typical context in which the term has been applied, and the last column lists representative studies using that terminology. Importantly, the table serves a definitional and classificatory purpose and does not synthesize empirical findings, which are derived exclusively from the systematic review presented in the findings section.

While these categories have been widely studied in general teams' literature, their application to TMTs remains limited. Given that TMTs make strategic decisions with firm-level consequences, understanding how spatial configuration affects executive cognition, social processes, and strategic processes is crucial.

The following sections examine each dimension, highlighting potential mechanisms and gaps in the literature.

Collocation

Collocation occurs when team members work at the same physical address (Cannella *et al.*, 2008), can easily see what other members are doing, and in this way, can identify unrelated work processes and notice coordination problems (Hinds & Mortensen, 2005). Traditional teams are CTs that meet face-to-face (Kirkman *et al.*, 2004) having a significant number of casual encounters, unplanned conversations, and multiple interactions with diverse purposes (Choi, 2025; Haque & Pawar, 2001; Hinds & Bailey, 2003; Jarvenpaa & Leidner, 1999; Lakemond & Berggren, 2006; Mortensen & Hinds, 2001; Polzer, Crisp, Jarvenpaa & Kim, 2006). Moreover, integration of suppliers is successful when members are co-located (Ragatz, Handfield & Scannell, 1997). Consequently, collocation enables communication, interaction, and collaboration between members using in-person communication (Barczak, McDonough & Athanassiou, 2006; Breuer, Hueffmeier & Hertel, 2016; Cramton, 2001; De Jong, Dirks & Gillespie, 2016; Warkentin, Sayeed & Hightower, 1997). Ambos, Ambos, Eich and Puck (2016) argue that CTs are the ones whose members share a common physical space, physical proximity, working closely in the same location. Additionally, members of inside teams within an organization collaborate on tasks, projects, or goals (Hambrick & Mason, 1984; Hu, Chen, Gu, Huang & Liu, 2017). The term onshore refers to teams whose members work in the same country as the primary location of their employer's headquarters or the main project site (Sidhu & Volberda, 2011).

Therefore, in operational or general teams, collocation is linked to faster coordination and more efficient problem-solving. In the context of TMTs, collocation may improve strategic alignment by facilitating managers to build shared mental models, increase mutual awareness, and rapidly identify coordination problems.

Although collocation seems beneficial for communication between members, its effect on strategic cognition or decision quality at the top level remains largely untested. Thus, an important void in the literature is understanding how managers' interactions translate into better strategic decision-making compared to dispersed or virtual TMTs.

Dispersion

Dispersion is present when members are located at significant distances from one another, working in different cities or countries and are geographically distributed (Ambos *et al.*, 2016; Barczak *et al.*, 2006; Cramton, 2001; da Silva, Mosquera & Soares, 2022; Gonzalez-Loureiro, Dabic & Puig, 2014; Jarvenpaa & Leidner, 1999; Muethel & Hoegl, 2010; O'Leary & Cummings, 2007; Polzer *et al.*, 2006; Presbitero & Teng-Calleja, 2019; Sidhu & Volberda, 2011; Weng, Windeler, Maruping & Venkatesh, 2024). Moreover, they do not have access to rich visual and sensory data; they lack awareness of the events and actions taking place at remote locations, as well as of the activities of their teammates situated there (Hinds & Mortensen, 2005). When team members are not located in the same physical space and frequently communicate through technology, and work in different time zones or come

from diverse cultural backgrounds, they must heavily depend on technological tools due to the distances involved. Distance and the reliance on mediating technologies are the two consistent factors across all distributed teams. Additionally, members of distributed teams often receive less incidental information about their remote colleagues (Hinds & Bailey, 2003). Non-CT members work together on projects or tasks but are not physically located in the same place (Haque & Pawar, 2001). The term global teams refers to teams located across the globe (Ambos et al., 2016; da Silva et al., 2022; Gonzalez-Loureiro et al., 2014; Mattarelli, Bertolotti, Prencipe & Gupta, 2022; Presbitero & Teng-Calleja, 2019; Salomo, Keinschmidt & de Brentani, 2010). Hambrick and Mason (1984) mention in their work the outside teams regarding teams whose members operate outside the organization and collaborate on tasks, projects, or goals. Furthermore, offshore teams are the ones whose members collaborate on projects or tasks while being in a different country or region than the primary location of their employer's headquarters or main project site (Sidhu & Volberda, 2011). In general teams, dispersion reduces access to informal information, weakens shared awareness, and requires explicit coordination mechanisms (Hinds & Bailey, 2003). For TMTs, it could limit informal strategic discussions, reduce opportunities to create consensus and delay decision-making. Moreover, dispersed TMT members may bring diverse perspectives from their locations, therefore, improving strategic insights and global awareness. Furthermore, the transferability of findings from general teams to TMTs is not simple. Unlike operational teams, TMTs make complex decisions that require trust and commitment, which may not be fully captured through virtual or distant communication channels.

Virtuality

VTs refer to an electronically connected work group comprised of individuals with distinct skills, situated in distant locations, who collaborate using technology across geographical and temporal barriers to achieve crucial organizational objectives, without the benefit of face-to-face interaction (Cai, 2023; Costa et al., 2018; Kargina, 2023; Kirkman et al., 2004; Moosa et al., 2023; Schreiber, Van Dijk & Drory, 2025; Vuchkovski et al., 2023; Weng et al., 2024). Virtuality allows geographically distributed teams to collaborate flexibly but generates challenges in building trust, coordination, and shared awareness.

In TMTs, virtuality may enable global strategic coordination, allowing executives to participate in decision-making without geographic constraints. Yet it may also hinder the formation of cohesive mental models and rapid strategic alignment, which are crucial for high-level decision-making. Literature currently lacks detailed studies on how virtual TMTs balance for reduced informal interactions, for example, through structured meetings, technology-mediated connections, or knowledge-sharing practices.

Accordingly, global virtual teams (GVTs) are teams whose members are responsible for making and/or implementing decisions important to the organization's global strategy, use technology-supported communication substantially more than face-to-face communication; and work and live in different countries (Davai et al., 2022; De Jong et al., 2016; Gilson et al., 2015; Greimel, Kanbach & Chelaru, 2023; Handke, Costa, Hincapie & Johnson, 2025; Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000; Sinnemann & Weiss, 2025; Tavoletti, Bernhard, Dong & Taras, 2023; Wong, Zhang, Cerne & Moe, 2024).

While general and operational teams differ from TMTs in decision complexity and responsibility, the mechanisms observed in collocated, dispersed, or VTs, such as effects on coordination, trust, and shared awareness, provide a valuable conceptual starting point. By examining these mechanisms, we can generate testable hypotheses about how similar processes may influence strategic decision-making in TMTs, while explicitly accounting for the unique characteristics of top-level teams.

Method

A systematic literature review was carried out since this enables heterogeneous research methods to be analyzed and thus provides a more comprehensive understanding of the subject (Gaur & Kumar,

2018). The review was conducted in accordance with the basic principles of systematic review – rigorous, informative, comprehensive, implicit, and reproducible (Codina, 2020) thus ensuring the synthesis of the evidence and the methodological thoroughness of the research.

Our review targeted research centered on spatial dimensions of TMTs, entailing a database search to encompass all relevant studies in this area. In line with previous reviews (Cuyppers *et al.*, 2022; Pla-Barber, Botella-Andreu & Villar, 2021), the review was conducted in three stages.

Stage 1: Inclusion criteria. To ensure rigor and scholarly quality, we limited our review to peer-reviewed studies published in journals indexed in the Web of Science Core Collection between 1984 and 2025, and written in English, directly or indirectly analyzing the spatial dimensions of TMTs. We selected Web of Science as the primary database because of its focus on scholarly journals, its objective journal selection criteria (e.g., impact, timeliness, and peer review), and its widespread use in academic research (Klang, Wallnöfer & Hacklin, 2014).

Stage 2: Database search. Articles were searched on the Web of Science Social Sciences Citation Index within the areas of business and economics to ensure that the studies are relevant to strategic and organizational team contexts, particularly TMTs. Search terms focused on three main topics related to spatial dimensions: CTs, DTs, and VTs, including variations of the terms ‘team’ and ‘group’ using truncation symbols and proximity operators. Articles were combined by linking TMT terms with each spatial dimension. Table 2 presents the exact search strings.

Stage 3: Screening and snowballing. After combining the articles included in each dimension and removing duplicates, 49 articles were identified. Titles, abstracts, and keywords were screened for relevance, excluding 10 articles that did not directly relate to TMT spatial dimensions. Excluded studies typically focused on topics such as dispersed information in product development or leadership emergence in multicultural teams, without analyzing spatial effects.

Snowballing was then applied using a backward (ancestry) approach to identify additional studies frequently cited or conceptually relevant to TMT spatial configurations, in order to ensure that no relevant articles were omitted from the initial database search (Wohlin, 2014). This procedure is consistent with prior reviews in the TMT and team literature (e.g., Ponomareva *et al.*, 2022) and resulted in the inclusion of 12 additional articles. Articles were included if they addressed TMT spatial dimensions (collocation, dispersion, or virtuality) and provided empirical or theoretical insights pertinent to upper echelons research. These studies were published in peer-reviewed management and organizational journals, including *Academy of Management Journal* (Amason, 1996; Gilson *et al.*, 2015; Kirkman *et al.*, 2004), *Academy of Management Review* (Hambrick & Mason, 1984), *Organization Science* (Cramton, 2001; Hinds & Mortensen, 2005; Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000; O’Leary & Cummings, 2007; Polzer *et al.*, 2006), *International Journal of Management Reviews* (Taylor & Spicer, 2007), and *Decision Sciences* (Warkentin *et al.*, 1997). The articles were selected based on their conceptual relevance to our research and their prominence in the literature as indicated by citation frequency.

The final sample comprised 51 articles. Figure 1 presents the PRISMA flow diagram detailing identification, screening, eligibility assessment, and inclusion of studies. The reviewed articles span multiple disciplines, including management, operations, and psychology. While this disciplinary diversity reflects the multifaceted nature of research on TMTs, all studies were systematically evaluated and included based on their direct or indirect relevance to TMT spatial dimensions, ensuring coherence in the overall review.

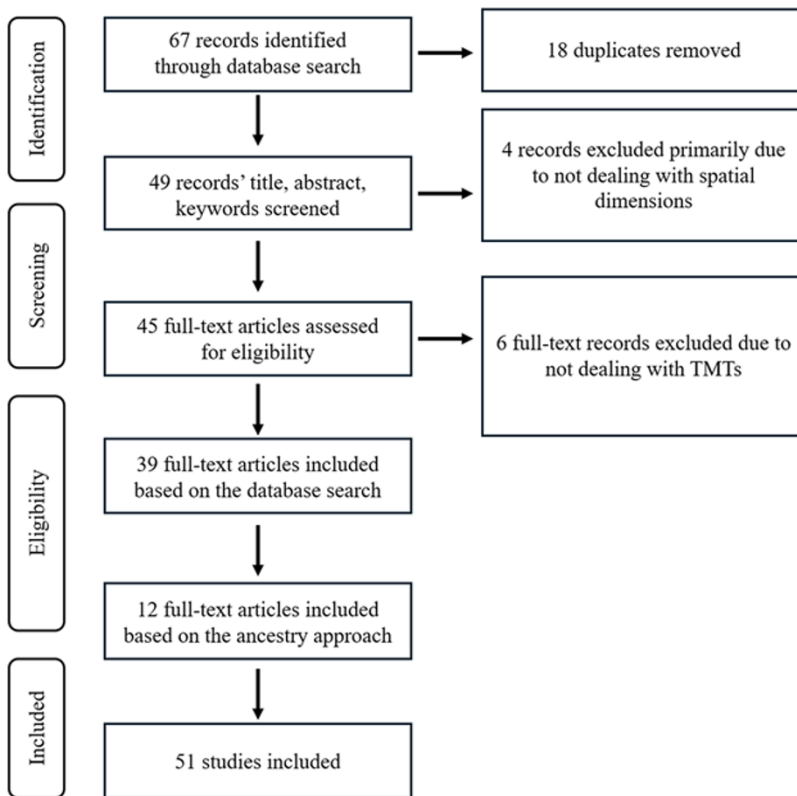
Findings

Descriptive overview of the included studies

Table 3 provides a descriptive overview of the included studies. The final sample comprises 51 studies published between 1984 and 2025, reflecting more than four decades of research examining how the spatial location of team members shapes managerial and organizational outcomes. The temporal

Table 2. Searched topics

TMT (1)	CT (2)	DT (3)	VT (4)
'top management team**'	*colocat* team*	'dispersed team**'	'virtual team'
OR 'top team**'	OR *colocat* team*	OR 'distributed team**'	OR 'global team'
OR 'TMT**'	OR *co-locat* team*	OR 'distanced team**'	
OR 'top management'	OR face-to-face team*	OR 'separated team**'	
OR 'upper echelons'	OR *colocat* group*	OR 'dispersed group**'	
OR 'upper executive**'	OR *colocat* group*	OR 'distributed group**'	
OR 'top manager**'	OR *co-locat* group*	OR 'distanced group**'	
OR 'CEO'	OR face-to-face group*	OR 'separated group**'	
OR 'board of directors'			
OR 'chief executive'			
OR 'corporate board**'			
OR 'executive board**'			
OR 'executive team**'			
OR 'leader* team**'			
OR 'senior management**'			

**Figure 1.** Preferred reporting items for systematic reviews and meta-analysis (PRISMA) flow diagram.

distribution of publications reveals a gradual expansion of interest in spatial configurations, with a relatively small number of foundational studies ($n = 5$) emerging during the 1980s and 1990s, followed by a steady increase in empirical work after the early 2000s. This growth coincides with advances in digital communication technologies and the globalization of organizational work structures, which have made geographically dispersed and virtual collaboration increasingly common (Gilson *et al.*, 2015; Greimel *et al.*, 2023). A further concentration of studies ($n = 18$) appears in the period following the COVID-19 pandemic, reflecting the widespread adoption of remote and hybrid work arrangements and renewed attention to the managerial implications of virtual collaboration (Davai *et al.*, 2022; Vuchkovski *et al.*, 2023).

Across the reviewed studies, the level of analysis varies substantially, spanning individual, team, multilevel, and firm perspectives. The majority of studies adopt a team-level focus ($n = 26$), consistent with the central role of teams as coordination mechanisms in contemporary organizations (DeChurch, Mesmer-Magnus & Doty, 2013; Costa *et al.*, 2018). However, a smaller subset of studies examines spatial configurations at the firm level ($n = 3$), particularly in research on TMTs, highlighting how executive location may influence strategic decision-making and organizational performance (Cannella *et al.*, 2008; Hambrick & Mason, 1984). Multilevel approaches are also increasingly visible in more recent research ($n = 17$), reflecting growing recognition that spatial arrangements simultaneously shape individual perceptions, team dynamics, and organizational outcomes.

The reviewed literature encompasses several types of teams, each associated with distinct coordination challenges and strategic contexts. A significant portion of studies focuses on GVTs and DTs ($n = 18$), reflecting the prevalence of geographically distributed collaboration in multinational and knowledge-intensive environments (Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000). Other studies examine product development and innovation teams (PD and IT; $n = 11$), where spatial proximity is often linked to coordination speed and knowledge integration (Mattarelli *et al.*, 2022; Ragatz *et al.*, 1997). Research on TMTs ($n = 9$) represents a smaller but theoretically significant stream, emphasizing the strategic consequences of executive location and the interaction between spatial configuration and upper echelons characteristics (Cannella *et al.*, 2008; Vuchkovski *et al.*, 2023). Finally, several studies investigate general work and specialized teams (GW and ST; $n = 13$) operating in routine organizational settings, where spatial dispersion influences communication patterns, trust formation, and coordination efficiency (Breuer *et al.*, 2016; Feitosa *et al.*, 2020; Warkentin *et al.*, 1997).

The reviewed studies draw on a diverse set of theoretical perspectives to explain how spatial configurations influence team dynamics and organizational outcomes. Rather than relying on a single dominant framework, the literature reflects the coexistence of multiple theoretical lenses that address different mechanisms through which geographic distance and virtual interaction shape coordination, trust, conflict, and strategic decision-making.

As summarized in Table 4, the most frequently applied theoretical perspectives include social identity and faultline theories ($n = 11$) and organizational, systems, and contingency frameworks ($n = 11$), which conceptualize spatial configuration as either a social boundary (Ambos *et al.*, 2016; Polzer *et al.*, 2006) or a structural design variable requiring alignment with organizational processes (Gilson *et al.*, 2015; Ragatz *et al.*, 1997). Other important streams of research focus on leadership adaptation (Taylor & Spicer, 2007; Greimel *et al.*, 2023; $n = 7$), conflict dynamics (Amason, 1996; Hinds & Bailey, 2003; $n = 6$), and trust and psychological states (Jarvenpaa & Leidner, 1999; Breuer *et al.*, 2016; $n = 6$), highlighting the relational and behavioral challenges associated with distributed collaboration. A smaller but strategically significant subset of studies draws on strategic leadership and upper echelons theory (Hambrick & Mason, 1984; Cannella *et al.*, 2008; $n = 5$), emphasizing the implications of executive location for strategic decision-making. Communication and media theories (Maznevski & Chudoba, 2000; Weng *et al.*, 2024; $n = 5$) further explain how communication technologies influence coordination and mutual understanding in dispersed settings.

Overall, these theoretical perspectives suggest that spatial configuration affects organizational outcomes through multiple pathways, including social categorization, communication processes, leadership adaptation, and coordination mechanisms. The diversity of theoretical lenses underscores

Table 3. Overview of the included studies (*n* = 51)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
1	Hambrick and Mason (1984)	Collocation	Firm	TMT	Conceptual/theoretical	N/A	Managerial backgrounds are reflected in organizational outcomes through the lens of strategic choice	Bounded rationality and cognitive filtering distort the perception of environmental stimuli	Strategic choices and firm performance
2	Amason (1996)	Collocation	Team	TMT	Mixed	USA	Proximity and team size influence the richness of interpersonal interactions	Perceptual diversity leads to cognitive synthesis, but cognitive disagreement may be misinterpreted as personal criticism	Decision quality, consensus, and affective acceptance
3	Ragatz et al. (1997)	Collocation	Team	PD & IT	Quantitative	USA	Rapid technological change and global competition require integrating supplier knowledge into the value chain	Physical asset sharing and co-location facilitate joint problem identification and rapid resolution	Cost, quality, and development cycle time
4	Warkentin et al. (1997)	Virtuality versus collocation	Team	GW & ST	Experimental	USA	Necessity of collaboration among geographically distributed knowledge workers driven by business needs	Reduced paraverbal and nonverbal cues in computer-mediated communication slow the development of relational links	Communication effectiveness and team satisfaction
5	Jarvenpaa and Leidner (1999)	Virtuality	Team	GVT & DT	Case study	Global	Economic viability and practical necessity of electronic communication for global projects	Members import stereotypical expectations and maintain trust through action-oriented communication	Trust levels and team viability

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
6	Maznevski and Chudoba (2000)	Virtuality	Team	GVT & DT	Case study	USA, Europe, and Asia	Organizational mandates to make and implement decisions important to global strategy	Effectiveness depends on a fit between the interaction incident form, decision process, and message complexity	Decision quality, commitment, and team effectiveness
7	Cramton (2001)	Dispersion	Team	GVT & DT	Qualitative	USA, Canada, Australia, Portugal	Technological developments making collaboration across members' physical dispersion feasible for organizations	Failure to share contextual information and difficulty interpreting silence or salience causes communicative breakdowns	Team cohesion and collaborative performance
8	Haque and Pawar (2001)	Collocation	Team	PD & IT	Case study	UK	Global competition and technological change necessitate concurrent engineering and process integration	Overlapping activities and improved coordination through process modeling increase task visibility	Cost, product quality, and time-to-market
9	Mortensen and Hinds (2001)	Dispersion versus collocation	Team	PD & IT	Quantitative	USA and Global	Global economic factors requiring access to distributed resources and expertise	Reduced mutual awareness and increased reliance on technology to mediate communication heighten task disagreements	Team performance and member satisfaction

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
10	Hinds and Bailey (2003)	Dispersion and virtuality	Team	GVT & DT	Conceptual/theoretical	N/A	Global expansion, mergers, and competitive pressures to reduce product development cycle times	Distance and technology mediation cause a loss of shared context, familiarity, and spontaneous interaction	Team performance and efficiency
11	Kirkman et al. (2004)	Virtuality	Team	GVT & DT	Quantitative	USA	Advances in communication technology creating opportunities to build distant employee groups	Team empowerment functions as a substitute for leadership and direct supervision in virtual contexts	Process improvement and customer satisfaction
12	Hinds and Mortensen (2005)	Collocation versus dispersion	Team	PD & IT	Mixed	USA and Europe	Organizational restructuring to leverage global expertise and customer proximity	Lack of spontaneous communication and unshared context/identity	Task conflict, interpersonal conflict, and team performance
13	Ayub and Jehn (2006)	Dispersion	Individual and team	GW & ST	Conceptual/theoretical	N/A	Search for specialized global skills and operation in multinational contexts	National categorization creating ‘us-versus-them’ tensions	Relationship, task, and process conflict
14	Barczak et al. (2006)	Dispersion	Team	TMT/PD & IT	Literature review	USA, Europe, and Mexico	Strategic need to integrate worldwide design expertise and meet local customer needs	Physical and psychological isolation reducing trust and informal knowledge sharing	Project goal attainment (time/budget) and firm performance

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
15	Lakemond and Berggren (2006)	Collocation versus dispersion	Team	PD & IT	Case study	Sweden	Need for rapid development and discontinuity from established modular programs	Groupthink from extended collocation and ‘us-versus-them’ feelings with the parent organization	Speed (lead-time), development cost, and organizational integration
16	Polzer et al. (2006)	Collocation versus dispersion	Team and dyadic	GW & ST	Experimental	Global	Organizational reliance on DT s for core interdependent activities	Salience of geographic location activating divisive social faultlines	Team conflict (affective/task) and team trust
17	O’Leary and Cummings (2007)	Dispersion	Team	GVT & DT	Conceptual/ theoretical	N/A	Globalization and ‘follow the sun’ or remote expertise-tapping strategies	Reductions in spontaneous face-to-face interaction and synchronous overlap	Coordination complexity, member awareness, and conflict
18	Taylor and Spicer (2007)	Dispersion	Multilevel	GW & ST	Literature review	N/A	Evolution of Scientific Management and changing workplace architectural ideologies	Disciplinary surveillance and symbolic rescripting of built forms	Workplace satisfaction, motivation, and managerial control efficiency
19	Cannella et al. (2008)	Collocation	Firm	TMT	Quantitative	USA	Industry environmental uncertainty and need for diverse strategic capabilities	Lack of mutual knowledge and shared context in dispersed TMTs	Firm performance (Return On Assets)

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
20	Muethel and Hoegl (2010)	Dispersion	Multilevel	GVT & DT	Conceptual/theoretical	N/A	Strategic intent to leverage specialized expertise residing at different locations	Institutional diversity activating divergent ‘camps’ and behavior-related conflict	Team shared leadership behaviors and team performance
21	Salomo et al. (2010)	Dispersion	Firm	PD & IT	Quantitative	North America and Europe	Globalization and the need to respond to heterogeneous local market preferences	Impeded international information sharing and mutual learning in high-dispersion scenarios	Global New Product Development program performance
22	Sidhu and Volberda (2011)	Dispersion	Team and firm	GVT & DT	Qualitative	Netherlands and India	Captive offshoring strategy aims to utilize skilled but lower-cost labor in distant markets	Separate local frames of reference spark political conflict between interest blocks	Productivity and organizational performance
23	DeChurch et al. (2013)	Collocation and virtuality	Team	GW & ST	Meta-analysis	N/A	Organizations structure work in teams to capitalize on expanded pools of expertise	Interaction processes determine how teams integrate their differences into collective efforts	Team performance and affective outcomes
24	Hung and Lin (2013)	Collocation	Individual and dyadic	GW & ST	Quantitative	Taiwan	Boundary spanners engage in regular information exchanges to develop long-term relationships	High-quality information exchanges build a common understanding and reduce interpersonal distance	Perceived satisfaction

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
25	Gilson et al. (2015)	Virtuality and dispersion	Team	GVT & DT	Literature review	N/A	Technological innovation and communication proliferation enable remote collaboration	Reduced social cues and communication lags increase the difficulty of building trust	Performance and affective reactions
26	Gonzalez-Loureiro et al. (2014)	Dispersion	Team and firm	TMT	Bibliometric	N/A	Increasing global rivalry necessitates strategic management of dispersed human capital	Dispersed talented individuals grouped into teams act as the enablers of global competitiveness	Competitive advantage and firm performance
27	Xie, Wang and Qi (2015)	Collocation	Team and firm	TMT	Quantitative	China	Strategic needs in the IT industry drive teams to balance short-term profit and long-term innovation	Subgroup prototypes facilitate behavioral expectations for efficiency, while cohort effects provide safety for innovation	Short-term performance and innovation
28	Ambos et al. (2016)	Dispersion	Individual and team	GVT & DT	Quantitative	Global	Multinational corporations leverage distributed teams to transfer knowledge across borders	Observable differences in location and nationality trigger in-group/out-group social categorization	Knowledge-sharing processes and outcomes

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
29	Breuer et al. (2016)	Virtuality versus collocation	Team	GW & ST	Meta-analysis	N/A	Organizations adopt virtual work designs to integrate specialized expertise across various contexts	Trust enables risk-taking behaviors like asking for help and sharing feedback	Team performance, attitudes, and info processing
30	De Jong et al. (2016)	Virtuality versus collocation	Team	GW & ST	Meta-analysis	N/A	Modern organizations utilize team-centered, flatter structures to reach goals	Trust allows members to suspend uncertainty and allocate energy directly to team goals	Team performance
31	Costa et al. (2018)	Virtuality	Individual and team	GW & ST	Literature review	N/A	Organizational requirements for high interdependence and flexibility drive team formation	Interpersonal interactions over time regularize into shared team-level emergent states	Performance, innovation, and attitudes
32	Hu et al. (2017)	Dispersion	Team	PD & IT	Quantitative	China	Collaborative innovation needs to drive the formation of boundary-spanning teams	Animosity and mistrust from conflicts inhibit information flow across organizational areas	Team creativity
33	Presbitero and Teng-Calleja (2019)	Virtuality, dispersion and collocation	Individual	GVT & DT	Quantitative	Australia	Globalization requires tasks to be performed across temporal and spatial boundaries	Leaders provide social cues that are internalized through role modeling	Individual ethical behavior

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
34	Feitosa, Grossman, Kramer and Salas (2020)	Virtuality	Team	GW & ST	Meta-analysis	N/A	Organizations increasingly rely on virtual tools for team functioning	Separation in time creates distal relationships that decrease the strength of trust–performance links	Team performance
35	Cunningham, Gino, Cable and Staats (2021)	Virtuality	Individual and team	TMT	Experimental	USA	Rapid pace of change requires organizations to rely on adaptable, fluid teams	Internalizing an identity as a contributor reduces social acceptance concerns	Team performance; unique information sharing
36	Mattarelli et al. (2022)	Dispersion	Individual and team	PD & IT	Qualitative	USA, Ireland, and India	Management uses modular product designs to mirror loosely coupled structures across sites	Representational gaps and conflicting individual coordination practices create team breakdowns	Team failure; product architecture quality
37	da Silva et al. (2022)	Dispersion	Individual and team	PD & IT	Quantitative	Portugal	Flexible work arrangements and advanced IT facilitate dispersed structures	Intrinsic motivations and feelings of affiliation drive knowledge-sharing behavior	Knowledge-sharing behavior

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
38	Cai (2023)	Virtuality	Individual	GVT & DT	Quantitative	China and Hong Kong	The ‘new normal’ and globalization drive pervasive virtual teamwork	Computer-Selective self-presentation and idealization via CMC ediated Communication channels bolster team perceptions	Perceived team cohesiveness and effectiveness
39	Davaei et al. (2022)	Virtuality and dispersion	Individual and team	GVT & DT	Quantitative	Global	Advances in ICT and pandemic-related travel bans forced shifts to telework	High intelligence facilitates cultural adaptation and emotional monitoring to reduce conflict	Team performance
40	Greimel et al. (2023)	Virtuality and dispersion	Team	GVT & DT	Literature review	N/A	Digitalization and mandatory remote work due to the COVID-19 crisis drive virtuality	Leaders motivate through example by using digital channels to transmit vision and inspiration	Team performance; satisfaction; group efficacy
41	Kargina (2023)	Virtuality and dispersion	Multilevel	GVT & DT	Bibliometric	N/A	Cost reduction, ecological goals, and pandemic restrictions drive remote work	Reduced cultural cues in virtual settings impact social categorization and integration	Team effectiveness; innovation
42	Kuselias, Agoglia and Wang (2023)	Collocation versus dispersion	Individual and team	GW & ST	Experimental	USA	Technological advances and post-pandemic remote work shifts	Motivation to manage a supervisor’s impressions based on perceived relationship importance	Auditor judgments (inventory obsolescence assessment)

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
43	Moosa et al. (2023)	Virtuality	Team and firm	TMT	Qualitative	South Africa	Private sector digitalization enabling increased virtual interaction	Interpersonal relationship strain and reduced psychological safety due to limited face-to-face contact	Team performance, performance management effectiveness
44	Tavoletti et al. (2023)	Virtuality and dispersion	Individual	GVT & DT	Quantitative	Global	Global team staffing across locations	Social categorization based on surface-level traits followed by deep-level individualization	Peer performance evaluations
45	Vuchkovski et al. (2023)	Virtuality	Individual and firm	TMT	Qualitative	Europe	External disruption from pandemic lockdowns and survival needs	Formalization of communication and loss of spontaneous informal knowledge exchange	Knowledge transfer, learning, and organizational innovation
46	Weng et al. (2024)	Dispersion	Team	PD & IT	Quantitative	China, India, and USA	MNC foreign expansion for cost savings and market responsiveness	Interpersonal process asymmetry regarding shared perceptions of trust and cohesion	Team performance
47	Wong et al. (2024)	Virtuality	Team	GVT & DT	Mixed	Norway	Strategic remote work adoption for employee autonomy and talent	Communication-based faultlines dividing teams into relatively homogeneous subgroups	Team coordination
48	Choi (2025)	Virtuality	Individual	GW & ST	Mixed	USA	Globalization-driven corporate multinationalism and pandemic shifts	Self-censorship behaviors and asymmetric perceptions of conflict presence	Team performance scores

(Continued)

Table 3. (Continued.)

Record	Authors	Spatial dimension addressed	Level	Team	Research method	Country	Antecedent	Causal mechanism	Outcomes studied
49	Handke et al. (2025)	Collocation	Multilevel	GW & ST	Conceptual/theoretical	N/A	Proliferation of hybrid work practices and worker flexibility	Geographic subgroup formation driven by relational identity and co-location disparities	Subgroup formation
50	Schreiber et al. (2025)	Virtuality and dispersion	Team	GVT & DT	Quantitative	Global	Strategic collaboration across dispersed locations and cultures	Barriers to trust formation arising from deep-level cultural value heterogeneity	Employee trust in teammates
51	Sinnemann and Weiss (2025)	Virtuality and dispersion	Team	PD & IT	Meta-analysis	N/A	Technological advancements and COVID-19 pandemic acceleration	Coordination structure complexities and reduced transparency of individual progress	Team innovation

Table 4. Theoretical perspectives explaining executive spatial configuration

Theory category	Quantity	Core explanatory logic	Studies
Social Identity & Faultlines	11	Explains how geographic distance triggers ‘us-versus-them’ tensions and activates social faultlines based on location	Polzer et al. (2006); Ambos et al. (2016); Handke et al. (2025)
Organizational, Systems, & Contingency	11	Views spatial configuration as a structural ‘input’ that must be managed through process modeling, modularity, or contingency-based ‘fit’	Ragatz et al. (1997); Gilson et al. (2015); Sinnemann and Weiss (2025)
Leadership Adaptation	7	Focuses on how leaders use transformational behaviors and cultural intelligence to bridge spatial gaps, as well as the sociopolitical production of space	Taylor and Spicer (2007); Greimel et al. (2023); Schreiber et al. (2025)
Conflict Dynamics	6	Analyzes how distance increases affective and task conflict by impairing resolution mechanisms and reducing shared context	Amason (1996); Hinds and Bailey (2003); Choi (2025)
Trust & Psychological States	6	Explores the formation of ‘swift trust’ and the role of self-affirmation or psychological safety in enabling remote collaboration	Jarvenpaa and Leidner (1999); Breuer et al. (2016); Cunningham et al. (2021)
Strategic Leadership & Upper Echelons	5	Argues that TMT backgrounds filter strategic choice and that collocation moderates the impact of diversity on firm performance	Hambrick and Mason (1984); Cannella et al. (2008); Vuchkovski et al. (2023)
Communication & Media Theories	5	How reduced social cues and the (mis)alignment of digital tools (Media Synchronicity) affect relational links and mutual knowledge	Warkentin et al. (1997); Maznevski and Chudoba (2000); Weng et al. (2024)

the need for an integrative framework capable of explaining how executive location shapes cognitive, social, and strategic processes at the top of the firm.

Methodologically, the field demonstrates substantial diversity in research designs and analytical approaches. Quantitative studies represent the largest share of the sample ($n = 16$), including survey-based analyses, archival panel data, and structural equation modeling techniques (Kirkman et al., 2004; Xie et al., 2015). Qualitative and mixed method designs also play an important role, particularly in research exploring complex coordination processes and organizational change (Mattarelli et al., 2022; Sidhu & Volberda, 2011). In addition, several meta-analyses and systematic literature reviews synthesize prior empirical findings, providing cumulative evidence on the effects of virtuality and dispersion on team performance and innovation (Breuer et al., 2016; Sinnemann & Weiss, 2025). Experimental studies are less common ($n = 4$) but offer valuable insights into causal mechanisms underlying communication and decision-making dynamics in distributed settings (Kuselias et al., 2023; Warkentin et al., 1997). Together, the methodological diversity of the field reflects its evolving maturity and the complexity of studying spatially distributed collaboration.

Regarding the geographic context, empirical studies have been conducted across a wide range of regions, including North America, Europe, Asia, and global multicountry samples. A considerable number of studies rely on data from the USA ($n = 15$) or Western Europe ($n = 12$), consistent with the historical concentration of management research in these regions (Cannella et al., 2008; Kirkman et al., 2004). However, more recent research increasingly incorporates multinational and cross-national samples ($n = 11$), reflecting the global nature of distributed teamwork and the growing relevance of international collaboration (Davaei et al., 2022; Tavoletti et al., 2023). This geographic diversification suggests that spatial configurations are no longer confined to specific institutional contexts but have become a widespread organizational phenomenon.

Finally, the reviewed studies address three primary spatial dimensions: collocation, geographic dispersion, and virtuality. Early research focused primarily on physical proximity and the benefits of

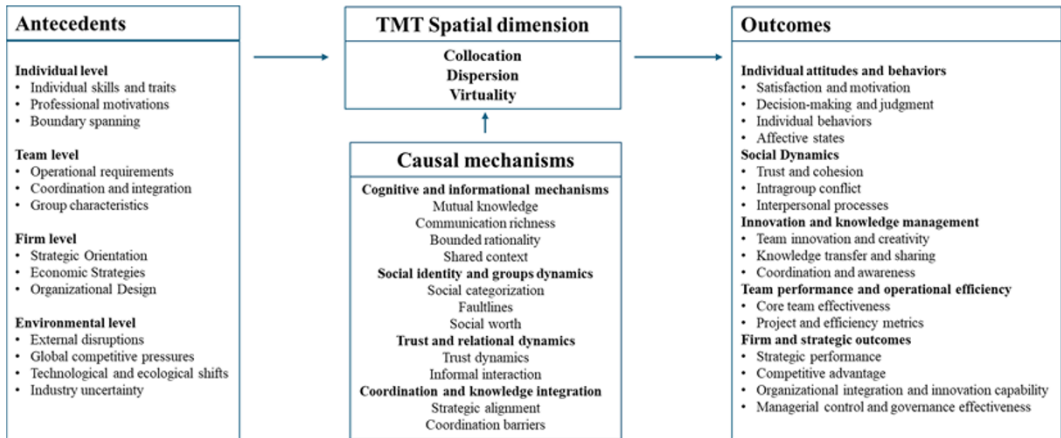


Figure 2. Integrative framework of TMT spatial configuration.

collocation for communication and coordination (Ragatz et al., 1997; Haque & Pawar, 2001; $n = 14$). Subsequent studies increasingly examined geographic dispersion as organizations sought to leverage distributed expertise and global resources (Mortensen & Hinds, 2001; Ambos et al., 2016; $n = 18$). More recent research emphasizes virtuality configurations, highlighting the role of digital technologies in enabling collaboration across physical and temporal boundaries (Gilson et al., 2015; Greimel et al., 2023; $n = 19$). Consequently, these spatial dimensions provide the structural foundation for understanding how the location of team members shapes cognitive, social, and strategic processes within organizations.

Antecedents of spatial configurations

The spatial configuration of TMTs and organizational work arrangements does not emerge randomly but reflects a set of organizational, strategic, and environmental conditions that shape where team members are located and how they interact. According to the reviewed studies, spatial configurations such as collocation, geographic dispersion, and virtuality are consistently portrayed as organizational responses to underlying functional, strategic, and structural design choices (Gilson et al., 2015; Maznevski & Chudoba, 2000). These multilevel antecedents, individual, team, firm, and environmental, explain why organizations adopt particular spatial arrangements and provide the foundation for understanding how spatial configuration subsequently influences cognitive, social, and strategic processes (see Fig. 2).

Individual-level antecedents

At the individual level, spatial configurations are often shaped by the skills, motivations, and boundary-spanning roles of organizational members. Studies consistently show that individuals with specialized expertise, international experience, or cross-functional responsibilities are more likely to operate across geographic locations or organizational boundaries (Cannella et al., 2008; Polzer et al., 2006).

Individual skills and traits represent a key driver of spatial dispersion, particularly in knowledge-intensive environments where expertise is scarce or geographically distributed. Organizations frequently locate specialists in different regions to access local knowledge, technical capabilities, or market-specific insights (Gilson et al., 2015; Maznevski & Chudoba, 2000). Professional motivations also play an important role in shaping spatial arrangements. Employees and executives may seek international assignments, remote work arrangements, or flexible work structures to achieve career

development, autonomy, or work–life balance objectives, thereby influencing organizational decisions regarding relocation and distributed work design (Breuer *et al.*, 2016; Jarvenpaa & Leidner, 1999).

A particularly important individual-level antecedent is boundary spanning, which refers to roles requiring interaction across organizational, functional, or geographic boundaries. Boundary-spanning responsibilities often necessitate distributed collaboration because individuals must coordinate activities, transfer knowledge, or represent organizational interests across locations (Ambos *et al.*, 2016; Greimel *et al.*, 2023; Handke *et al.*, 2025).

Team-level antecedents

At the team level, spatial configurations are primarily driven by operational requirements, coordination responsibilities, and group characteristics. These factors reflect the functional realities of teamwork and the need to align team structure with task demands.

Operational necessity represents one of the most direct drivers of spatial dispersion. Teams may be geographically distributed because tasks require local presence in multiple locations, continuous operations across time zones, or proximity to customers and partners (Barczak *et al.*, 2006; Lakemond & Berggren, 2006). In such cases, dispersion emerges as a functional response to operational constraints rather than a strategic design decision (Choi, 2025; Gilson *et al.*, 2015; Sinnemann & Weiss, 2025). Coordination and integration requirements also shape spatial configurations by assigning responsibilities that require coordination across organizational units. For example, teams responsible for global product development, knowledge integration, or cross-border coordination are often distributed across locations to facilitate collaboration with multiple stakeholders (Ambos *et al.*, 2016; Ragatz *et al.*, 1997; Schreiber *et al.*, 2025). Group characteristics further influence spatial arrangements by shaping how teams are structured and coordinated. Team size, diversity, functional specialization, and interdependence levels can determine whether collocation is feasible or whether distributed collaboration becomes necessary (Hinds & Bailey, 2003; Polzer *et al.*, 2006).

Firm-level antecedents

At the organizational level, spatial configurations are closely linked to strategic priorities, economic considerations, and structural design decisions. Firms adopt specific spatial arrangements to support their competitive strategies, manage costs, and coordinate activities across locations.

Strategic orientation represents a central firm-level antecedent influencing spatial configuration. Organizations pursuing international expansion, innovation leadership, or global integration often distribute teams across regions to access markets, knowledge, and resources (O’Leary & Cummings, 2007; Ragatz *et al.*, 1997; Vuchkovski *et al.*, 2023). In the case of TMTs, dispersion may also reflect strategic choices related to international governance structures and the need to balance global coordination with local responsiveness (Cannella *et al.*, 2008). Economic strategies also play a significant role in shaping spatial arrangements. Decisions related to cost reduction, resource allocation, and operational efficiency frequently lead organizations to locate activities in regions with lower labor costs, specialized infrastructure, or favorable regulatory environments (Gilson *et al.*, 2015; Warkentin *et al.*, 1997). Organizational design provides the structural framework within which spatial configurations emerge. Choices regarding centralization, decentralization, reporting structures, and coordination mechanisms influence where decision-making authority is located and how communication flows across the organization (Maznevski & Chudoba, 2000; Ragatz *et al.*, 1997; Schreiber *et al.*, 2025; Sinnemann & Weiss, 2025).

Environmental-level antecedents

Finally, spatial configurations are shaped by broader environmental conditions that constrain or enable organizational design choices. These contextual factors often operate beyond the direct control of the firm but exert significant influence on spatial arrangements.

External disruptions, such as technological change or global crises, can rapidly alter organizational work patterns and accelerate the adoption of remote or distributed collaboration (Gilson et al., 2015). Global competitive pressures also drive spatial dispersion by requiring organizations to operate in multiple markets and respond to diverse customer demands. Firms competing in international industries frequently distribute teams across regions to maintain market presence and strategic flexibility (Ambos et al., 2016). Technological and ecological shifts further influence spatial arrangements by enabling new forms of virtual collaboration and altering the feasibility of remote work. Advances in communication technologies have significantly reduced the coordination costs associated with geographic distance (Cunningham et al., 2021; Handke et al., 2025; Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000).

Industry uncertainty represents another important environmental driver of spatial configuration. In dynamic or unpredictable environments, organizations may adopt flexible spatial arrangements to respond quickly to changing market conditions (Hinds & Bailey, 2003).

Although these antecedents are observed across different types of teams, their implications become particularly consequential at the executive level. In TMTs, spatial configurations shape not only patterns of collaboration but also the structural conditions under which executives access information, integrate distributed expertise, and coordinate strategic decisions across organizational units. Consequently, understanding the drivers of executive spatial arrangements is critical for examining the mechanisms through which geographic location influences strategic leadership processes and firm-level outcomes.

Core causal mechanisms linking executive location to TMT processes

While much of the underlying evidence stems from research on teams in general, in TMTs, spatial configurations influence the cognitive and relational mechanisms through which executives interpret information, integrate knowledge across locations, and coordinate strategic decisions. Therefore, spatially induced variations in communication, trust, or subgroup dynamics become strategically consequential by shaping firm-level decision-making and implementation processes.

Beyond the structural conditions that give rise to spatial configurations, the reviewed studies consistently highlight a set of core causal mechanisms through which executive location influences team-level interaction and strategic outcomes. These mechanisms explain how collocation, geographic dispersion, or virtuality translate into differences in cognitive processing, social dynamics, trust formation, and coordination capacity within TMTs and other managerial groups. As illustrated in Figure 2, four primary mechanisms emerge across the literature: cognitive and informational constraints, social identity dynamics, relational trust processes, and coordination and knowledge integration challenges.

First, spatial configurations affect team functioning through cognitive and informational mechanisms that shape how executives perceive, interpret, and exchange information. Early upper echelons research emphasizes that managerial cognition is inherently bounded, such that strategic choices reflect selective interpretations of environmental stimuli filtered through executives' experiences and contextual awareness (Hambrick & Mason, 1984). When team members are geographically dispersed, the absence of shared context and reduced opportunities for spontaneous interaction can impair the development of mutual knowledge, leading to misinterpretations of silence, uneven information distribution, and attribution errors (Cramton, 2001). Similarly, distance and technology-mediated communication often reduce communication richness and hinder real-time problem-solving, thereby complicating information exchange and increasing coordination complexity in distributed teams (Hinds & Bailey, 2003; O'Leary & Cummings, 2007). Among TMTs, these informational asymmetries may ultimately distort strategic decision-making processes by amplifying perceptual differences and limiting collective sensemaking (Cannella et al., 2008).

Second, spatial arrangements activate social identity and group dynamics that influence interaction patterns within executive teams. Observable differences associated with geographic location

frequently serve as salient social cues that trigger in-group and out-group categorization processes, reinforcing subgroup formation based on site affiliation (Ambos *et al.*, 2016). In DTs, these locational distinctions may evolve into social faultlines that divide members into relatively homogeneous subgroups, increasing the likelihood of affective conflict and reducing trust (Polzer *et al.*, 2006). National or institutional diversity may further intensify these dynamics by activating divergent behavioral norms and value systems (Ayub & Jehn, 2006), thereby shaping leadership influence and shared decision-making processes in virtual environments (Muethel & Hoegl, 2010). Such categorization processes are particularly consequential at the executive level, where strategic consensus and integrative judgment depend on effective collaboration across functional and geographic boundaries.

Third, spatial configuration influences trust and relational dynamics, which play a central role in enabling cooperation under conditions of uncertainty and limited face-to-face contact. In VTs, trust often emerges in a fragile and temporal form, commonly described as ‘swift trust’, which relies on proactive communication and action-oriented interaction rather than interpersonal familiarity (Jarvenpaa & Leidner, 1999). However, reduced opportunities for informal interaction in dispersed or virtual settings may strain interpersonal relationships and undermine psychological safety among senior managers (Moosa *et al.*, 2023). Meta-analytic evidence further suggests that trust becomes a more critical determinant of performance in technology-mediated environments, as it enables risk-taking behaviors such as information sharing, feedback seeking, and collaborative problem-solving despite spatial separation (Breuer *et al.*, 2016; De Jong *et al.*, 2016).

Finally, spatial dispersion generates coordination and knowledge integration challenges that directly affect strategic alignment and organizational learning. Distance reduces opportunities for synchronous communication and spontaneous interaction, impairing the ability of executives to develop shared understanding and align decision processes across locations (Maznevski & Chudoba, 2000). In innovation and product development contexts, representational gaps between geographically separated units may create breakdowns in coordination practices and limit the effective integration of distributed expertise (Mattarelli *et al.*, 2022). At the strategic level, high levels of dispersion can impede international information sharing and mutual learning unless supported by strong team integration mechanisms and active senior management involvement (Salomo *et al.*, 2010). Consequently, spatial configuration shapes not only the quality of interpersonal interaction inside TMTs but also the firm’s capacity to synthesize knowledge and respond coherently to complex environmental demands.

Outcomes associated with spatial configurations

Although much of the empirical evidence reviewed in this study originates from research on teams in general, the outcomes discussed below are interpreted through an upper echelons lens. In TMTs, spatial configurations do not merely influence team functioning but shape executives’ ability to interpret information, integrate distributed knowledge, and govern organizational activities across geographically separated units. As such, spatially induced variations in interaction, trust, or coordination become strategically consequential by affecting decision implementation, organizational alignment, and firm-level performance.

The reviewed studies indicate that spatial configurations are associated with a broad set of outcomes emerging at the individual, team, and firm levels. Rather than exerting uniform performance effects, collocation, geographic dispersion, and virtuality influence how executives and team members evaluate situations, interact socially, integrate knowledge, and ultimately implement strategic decisions across organizational units. As presented in Figure 2, these outcomes can be grouped into five primary domains reflecting attitudinal, relational, innovative, operational, and governance-related consequences of spatial arrangements.

At the individual level, spatial configurations influence attitudes, judgments, and behavioral responses to collaborative work environments. Face-to-face interaction has been associated with higher communication effectiveness and member satisfaction compared to virtual collaboration,

despite comparable task performance levels (Warkentin et al., 1997). Geographic dispersion may also affect individual decision-making processes by reducing conformity pressures and enabling more independent judgments among distributed decision-makers (Kuselias et al., 2023). Conversely, high levels of virtuality may increase perceptions of conflict or encourage self-censorship behaviors in diverse teams, thereby negatively affecting individual performance assessments and affective states (Choi, 2025). More broadly, limited opportunities for face-to-face interaction in virtual managerial teams may strain interpersonal relationships and reduce psychological safety, influencing motivation and engagement in collaborative work (Moosa et al., 2023).

Spatial configuration also has important implications for social dynamics, trust, and conflict in distributed teams. Failures to share contextual information across geographically separated locations may fracture relationships into hostile locational coalitions and reduce team cohesion (Cramton, 2001). Similarly, distributed teams frequently experience higher levels of task and affective conflict due to reduced shared understanding and impaired conflict resolution mechanisms in technology-mediated environments (Hinds & Bailey, 2003; Mortensen & Hinds, 2001). Locational subgroup formation may further heighten interpersonal tensions and undermine trust when geographic fault-lines become salient across partially CTs (Polzer et al., 2006). Nonetheless, shared team identity and leadership support may mitigate these negative effects by fostering relational integration and cooperative interaction across dispersed locations (Barczak et al., 2006).

A third set of outcomes relates to team innovation and creativity, knowledge transfer, and coordination awareness. Geographic proximity has been shown to facilitate the sharing of complex or tacit knowledge and enhance team-level creativity in inter-organizational innovation contexts (Hu et al., 2017). By contrast, configurational imbalance and physical or psychological isolation in DTs may hinder informal knowledge sharing and impede information flows across organizational areas (Ambos et al., 2016; Barczak et al., 2006). Representational gaps and conflicting coordination practices across sites may also contribute to reduced product architecture quality or project failure in distributed development programs (Mattarelli et al., 2022). These findings suggest that spatial configuration shapes localized knowledge recombination processes across teams, thereby influencing innovation outcomes at the project or group level.

Concerning team performance and operational efficiency, spatial arrangements influence core team effectiveness and project-level metrics such as development speed, coordination efficiency, and cost performance. Collocation improves cross-functional integration and facilitates the overlap of development activities, thereby improving product quality and reducing time-to-market (Haque & Pawar, 2001). Conversely, distance and reliance on asynchronous communication may reduce mutual awareness and increase coordination complexity, leading to performance inefficiencies in distributed teams (Hinds & Mortensen, 2005; O'Leary & Cummings, 2007). However, VT empowerment may compensate for reduced supervision in low face-to-face settings, improving process outcomes and customer satisfaction under certain conditions (Kirkman et al., 2004).

Finally, spatial configurations affect firm-level and strategic outcomes, including strategic performance, competitive advantage, organizational integration and innovation capability, as well as managerial control and governance effectiveness. In TMTs, collocation has been found to positively moderate the relationship between functional diversity and firm performance by reducing coordination costs and facilitating interactional dynamics (Cannella et al., 2008). The strategic grouping of dispersed human capital across locations may likewise enhance global competitiveness and support firm performance in multinational contexts (Gonzalez-Loureiro et al., 2014). At the same time, high levels of dispersion may impede international information sharing and mutual learning unless supported by strong integration mechanisms, thereby constraining organizational integration and innovation capability (Salomo et al., 2010; Vuchkovski et al., 2023). Importantly, spatial separation may also limit executives' ability to monitor, influence, and align organizational behavior across geographically distributed units, affecting performance management effectiveness and the implementation of strategic decisions. Although such governance challenges often manifest through

interaction patterns across TMTs, they ultimately reflect firm-level variations in managerial control and governance effectiveness across spatially dispersed organizational structures.

Collectively, the reviewed studies reveal that the spatial configuration of TMTs represents a structural condition that shapes how executives exercise strategic leadership across geographically distributed organizational units. While many of the observed mechanisms, such as variations in communication richness, trust formation, or subgroup dynamics, have been documented in the broader literature on DT or VT, our synthesis highlights that these dynamics acquire distinct theoretical significance when they occur within teams holding strategic authority. In TMTs, spatial configurations influence not only interpersonal interaction but also the cognitive and relational mechanisms through which executives interpret environmental information, integrate distributed expertise, and coordinate strategic decisions.

As a result, spatially induced variations in executive interaction affect not only team-level processes such as knowledge sharing or decision quality, but also firm-level outcomes, including organizational integration and innovation capability, governance effectiveness, and the implementation of strategic choices. [Figure 2](#) synthesizes these relationships by integrating the multilevel antecedents, spatial dimensions, causal mechanisms, and outcomes associated with executive location, thereby providing a coherent framework for understanding how spatially distributed leadership shapes both the formulation and execution of strategy.

Discussion

Building on the integrative framework presented in [Figure 2](#), this review advances understanding of how the spatial configuration of TMTs influences the formulation and implementation of strategic decisions across geographically distributed organizational units. While many of the mechanisms identified in the broader literature on CT, DT, and VT, such as variations in communication richness, trust formation, conflict dynamics, or coordination capacity, have been extensively examined in operational or project-based settings, our synthesis highlights that these dynamics acquire distinct theoretical significance when they emerge within teams holding strategic authority. In TMTs, spatial arrangements not only affect patterns of interpersonal interaction but also shape the cognitive, social, and relational conditions under which executives interpret environmental information, integrate geographically distributed expertise, and exercise influence over organizational behavior across locations. As a result, variations in executive spatial configuration become consequential for both the formulation of strategic choices and their subsequent implementation throughout the firm. To further develop these implications, the following sections examine (1) the executive processes through which spatial configurations translate into strategic outcomes, and (2) the inherent trade-offs that spatially distributed leadership introduces for strategic integration, coordination, and governance.

Executive processes linking spatial configuration to strategic outcomes

Building on the causal mechanisms outlined above, spatial configurations shape a range of executive cognitive, social, and strategic processes that influence how TMTs formulate and implement strategic decisions across geographically distributed organizational units. Rather than exerting direct effects on organizational outcomes, executive location affects how senior decision-makers interpret information, interact across spatial boundaries, and align strategic actions throughout the firm.

From a cognitive perspective, spatial dispersion influences how executives process information and develop shared interpretations of strategic issues. Reduced communication richness and limited opportunities for spontaneous interaction in geographically distributed settings may impair the development of mutual awareness and shared context (Cramton, 2001; O'Leary & Cummings, 2007). In TMTs, such informational constraints may hinder real-time strategic sensemaking and increase reliance on asynchronous communication, ultimately affecting how diverse viewpoints are integrated into collective decisions (Kusielas *et al.*, 2023). Similarly, failures to share contextual information

across locations may result in divergent performance perceptions or attribution errors, reinforcing interpretive gaps that complicate consensus formation around strategic priorities (Tavoletti et al., 2023).

Spatial configuration also affects social interaction processes among executives by shaping patterns of conflict emergence, trust formation, and leadership influence. Geographic dispersion and technology-mediated communication may reduce familiarity and opportunities for informal interaction, thereby increasing the likelihood of task and affective conflict over time (Hinds & Bailey, 2003). In executive teams, such relational strain may reduce willingness to share unique information or challenge dominant interpretations, ultimately constraining the collective evaluation of strategic alternatives (Moosa et al., 2023). Leadership behaviors likewise become more consequential under conditions of spatial separation, as executives must increasingly rely on digitally mediated interaction to motivate, influence, and maintain alignment across dispersed organizational units (Greimel et al., 2023).

Finally, spatial configurations shape strategic coordination processes associated with decision implementation and performance management across geographically distributed units. Distance may increase coordination complexity by limiting opportunities for synchronous interaction and reducing the emergence of shared interaction rhythms (Maznevski & Chudoba, 2000). At the executive level, high levels of virtuality may formalize communication patterns and reduce informal influence channels, thereby affecting organizational learning and the consistent execution of strategic initiatives across sites (Vuchkovski et al., 2023). In this sense, spatial configuration influences strategic leadership not only through decision formulation but also by shaping the processes through which those decisions are translated into coordinated organizational action.

Spatial configuration as a source of strategic leadership trade-offs

Based on the executive processes outlined above and the integrative framework presented in Figure 2, the findings suggest that executive spatial configuration introduces a sequence of inherent tensions that shape how TMTs formulate and implement strategic decisions across geographically distributed organizational units. While spatial dispersion may improve access to diverse knowledge and enhance responsiveness to local environments, these benefits simultaneously create coordination challenges that constrain real-time interaction and strategic alignment.

Importantly, these effects do not operate directly on organizational outcomes but unfold through the cognitive, social, and strategic processes by which executives interpret information, integrate geographically distributed expertise, and coordinate action across locations. As spatial configuration expands the informational reach of executive teams, tensions emerge across different stages of the strategic process, from the acquisition of geographically embedded knowledge to the integration of distributed perspectives in collective decision-making, and ultimately to the coordinated implementation of strategic initiatives across organizational units. In this sense, rather than exerting uniformly positive or negative effects, the spatial arrangement of executives gives rise to a progression of trade-offs that influence the firm's ability to balance informational breadth, cross-unit integration, and centralized managerial control.

Knowledge breadth versus coordination costs

The first tension in this progression concerns the trade-off between knowledge breadth and coordination costs that emerges as TMTs expand their informational reach through spatial dispersion. Spatially distributed executive teams are often positioned to access a broader range of informational inputs and geographically embedded capabilities. The dispersion of managerial talent across locations may enhance global responsiveness and contribute to the development of competitive advantage by leveraging diverse contextual knowledge (Gonzalez-Loureiro et al., 2014). At the same time, increased spatial separation may impede international information sharing and mutual learning processes, particularly when coordination relies on asynchronous communication or formalized interaction

channels (Salomo *et al.*, 2010). For TMTs, this trade-off arises between the strategic benefits of incorporating heterogeneous knowledge sources and the coordination costs associated with synthesizing distributed insights into unified organizational actions. Spatial configurations that enhance informational breadth may therefore simultaneously constrain the speed and coherence of strategic decision implementation.

Integration versus fragmentation

The second tension in this progression concerns the trade-off between internal coordination efficiency and cross-unit strategic integration that arises once geographically embedded inputs must be synthesized into collective strategic decisions. Spatial clustering among executives may facilitate the emergence of locally cohesive subgroups, allowing for clearer behavioral expectations, faster interaction, and more efficient coordination among geographically proximate units (Xie *et al.*, 2015). However, when spatial proximity aligns with functional or demographic differences, such clustering may simultaneously activate geographic faultlines at the executive team level, heightening intragroup conflict and reducing trust across spatially separated executive clusters (Ayub & Jehn, 2006; Polzer *et al.*, 2006). Similarly, extended collocation may enhance internal development speed and decision-making alignment in clustered groups while isolating them from broader organizational perspectives, thereby constraining cross-functional interaction and the integration of geographically embedded knowledge into strategic deliberations (Lakemond & Berggren, 2006). In dispersed settings, configurational imbalance may further reinforce spatial isolation and hinder knowledge sharing between organizational units (Ambos *et al.*, 2016). Across TMTs, this tension reflects the competing demands of achieving coordination efficiency within locally embedded executive subgroups while maintaining integrated strategic alignment across the organization as a whole.

Autonomy versus managerial control

The final tension in this sequence concerns the trade-off between decentralized managerial autonomy and centralized managerial control that emerges during the coordinated implementation of strategic initiatives across geographically distributed organizational units. Spatial dispersion may enable TMTs to influence geographically embedded expertise by positioning executives closer to dispersed units and markets, thereby fostering greater independence in judgment formation and localized responsiveness to environmental conditions (Kuselias *et al.*, 2023). However, this same spatial separation may constrain executives' ability to exercise centralized managerial control across organizational units by limiting opportunities for synchronous interaction, real-time alignment, and performance monitoring in geographically distributed settings (Moosa *et al.*, 2023). Reduced shared interaction rhythms and reliance on technology-mediated communication may hinder consensus formation and delay the coordinated implementation of strategic initiatives across locations (Hinds & Bailey, 2003; Maznevski & Chudoba, 2000). Among TMTs, this tension reflects the competing demands of encouraging decentralized initiative while maintaining the oversight and temporal coordination required for consistent execution of firm-wide strategic decisions.

Implications for research

The progression of trade-offs identified above suggests several important implications for future research on TMTs and strategic leadership. First, conceptualizing executive spatial configuration as a structural dimension of upper echelons extends existing theory beyond its traditional focus on compositional characteristics such as demographic diversity or functional background. While prior research has emphasized who executives are and what experiences they bring, our findings indicate that where executives are located, and how they interact across space, plays a critical role in shaping the processes through which strategic decisions are formulated and implemented. Future studies may therefore benefit from incorporating spatial configuration as a design variable that conditions

executive sensemaking, knowledge integration, and managerial control in geographically distributed organizational contexts.

Second, the presence of sequential tensions, such as those between knowledge breadth and coordination costs, integration and fragmentation, or autonomy and managerial control, suggests that spatial configurations are unlikely to exert uniformly positive or negative effects on organizational outcomes. Rather than examining dispersion or virtuality as independent predictors of performance, future research should explore how these arrangements create competing strategic demands across different stages of the strategic process. In particular, examining how TMTs manage the balance between expanding informational reach, maintaining cross-unit integration, and exercising centralized managerial control may offer new insights into the dynamics of strategic consensus formation and the consistent execution of firm-wide initiatives across distributed organizational units.

Third, these findings highlight the need to view spatial configuration as a dynamic characteristic of executive collaboration. Emerging hybrid work arrangements, episodic collocation, and digitally mediated governance structures suggest that executive spatiality may vary across strategic stages, from environmental interpretation and resource allocation to decision implementation and performance monitoring. Future research could therefore investigate how temporal fluctuations in executive proximity influence alignment and coordination processes throughout the strategic decision-making cycle.

Implications for practice

The sequential progression of trade-offs identified above also carries important implications for managerial practice. Firms operating in geographically dispersed environments may need to recognize that executive spatial configuration is not just a logistical consideration but a design feature that shapes strategic leadership capacity across different stages of the strategic process. For instance, while dispersing members of TMTs may improve access to locally embedded knowledge and improve responsiveness to diverse market conditions, it may simultaneously increase coordination complexity and reduce opportunities for informal interaction essential for cross-unit integration and consensus building.

To address these tensions, organizations may consider designing interaction structures that balance informational breadth with alignment capacity. Periodic physical meetings or structured face-to-face interaction during periods of strategic uncertainty may help mitigate interpretive fragmentation and support shared understanding among dispersed executives. Similarly, investments in digital collaboration tools and performance management systems may develop the ability of spatially distributed leaders to monitor organizational behavior and coordinate decision implementation across locations.

Furthermore, recognizing the trade-off between executive autonomy and managerial control may allow firms to tailor leadership practices to the demands of different strategic contexts. Encouraging decentralized initiative in stable or locally responsive environments may be beneficial during early stages of interpretation and formulation, whereas greater spatial proximity or synchronous interaction may be required when implementing firm-wide strategic initiatives that demand consistent alignment across organizational units.

Limitations and future research agenda

While this review provides an integrative framework for understanding how executive spatial configuration shapes strategic leadership processes across geographically distributed organizational units, several limitations of the existing literature highlight important opportunities for future research. First, although the objective of this study was to examine the spatial configuration of TMTs, much of the empirical evidence reviewed originates from research on collocate, geographically dispersed,

virtual, or project-based teams more broadly. Given the limited number of studies explicitly examining executive spatial arrangements, the present synthesis relies in part on insights derived from the broader team literature to identify cognitive, social, and coordination mechanisms associated with spatial separation. While these mechanisms are theoretically relevant when interpreted through an upper echelons lens, their implications for strategic leadership may differ when team members hold decision-making authority over firm-level outcomes. Future empirical work focusing directly on spatially distributed TMTs is therefore necessary to assess the boundary conditions of the relationships proposed in this review.

Moreover, the majority of studies conceptualize spatial configuration in relatively static terms, such as geographic dispersion or virtuality, without capturing potential temporal variation in executive proximity. The sequential progression of trade-offs identified in this review suggests that executive spatial configuration may influence different stages of the strategic process, from the acquisition of geographically embedded knowledge and its integration into collective decision-making to the coordinated implementation of firm-wide strategic initiatives. Future research may therefore benefit from adopting longitudinal or process-oriented designs capable of capturing how episodic collocation, hybrid leadership arrangements, or digitally mediated interaction structures shape executive alignment over time.

In particular, further attention is needed to examine how spatially distributed executives synthesize heterogeneous informational inputs into coherent strategic action without compromising cross-unit integration or managerial control. Investigating how communication structures, interaction rhythms, or digitally mediated coordination mechanisms influence the balance between informational reach and implementation consistency may offer new insights into the dynamics of strategic consensus formation and execution in globally distributed TMTs.

Finally, the reliance on secondary sources and archival or survey-based studies limits understanding of how informal interaction patterns, subgroup formation, or implicit influence processes unfold in spatially distributed executive teams. Future research employing network-based methodologies, behavioral process tracing, or digital communication data may therefore contribute to a more nuanced understanding of how spatial configuration shapes executive coordination, monitoring capacity, and implementation effectiveness across geographically dispersed organizational units.

Addressing these limitations may contribute to advancing a more dynamic understanding of executive spatial configuration as a structural dimension of strategic leadership in contemporary multinational firms.

Conclusion

As organizations increasingly operate across geographically dispersed and digitally connected environments, understanding how TMTs function across spatial boundaries has become a critical issue for both scholars and practitioners. This review provides an international perspective on upper echelons by examining how the spatial configuration of executive teams shapes the processes through which strategic decisions are formulated and implemented.

By synthesizing insights from research on collocated, geographically dispersed, and virtual teams, this study conceptualizes executive spatial configuration as a structural condition that influences how top managers interpret information, integrate geographically distributed expertise, and coordinate action across organizational units. The findings highlight that spatial arrangements do not exert uniformly positive or negative effects on strategic leadership but instead introduce inherent tensions, such as those between knowledge breadth and coordination costs, integration and fragmentation, or autonomy and managerial control, which unfold across different stages of the strategic process.

The framework developed in this review advances existing upper echelons research by shifting attention from compositional characteristics of executive teams toward the interactional conditions under which strategic decisions are formed and executed across locations. In doing so, it underscores that executive spatial configuration is not merely a logistical feature of collaboration but a

design dimension that shapes the firm's capacity to integrate knowledge, exercise managerial control, and implement strategic choices consistently throughout geographically dispersed organizational structures.

Overall, this study offers an integrative foundation for examining how spatially distributed leadership influences both the formulation and execution of strategy, thereby opening new avenues for future research on TMTs operating across geographic boundaries.

Acknowledgements. This work was supported by the Ministry of Science and Innovation (PID2021-124474OA-I00; PID2024-162716OB-I00), funded by MCIN/AEI/10.13039/501100011033/ and by FEDER, 'a way of making Europe', EU. We also acknowledge the support of Consellería de Educación, cultura, universidades y Empleo (CIACO/2023/43).

Conflict(s) of Interest. The author(s) declare none.

Declaration. During the preparation of this manuscript, the authors used ChatGPT (OpenAI, GPT-5, accessed between January and March 2026) to assist with wording refinement and organization of selected sections of the text. No AI tools were used for literature identification, screening, data extraction, analysis, or interpretation of findings. All intellectual content and theoretical contributions were developed by the authors, who take full responsibility for the final manuscript.

References

- Amason, A. C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for top management teams. *Academy of Management Journal*, 39(1), 123–148. <https://doi.org/10.5465/256633>.
- Ambos, T. C., Ambos, B., Eich, K. J., & Puck, J. (2016). Imbalance and isolation: How team configurations affect global knowledge sharing. *Journal of International Management*, 22(4), 316–332. <https://doi.org/10.1016/j.intman.2016.03.005>.
- Ayub, N., & Jehn, K. A. (2006). National diversity and conflict in multinational workgroups - the moderating effect of nationalism. *International Journal of Conflict Management*, 17(3), 181–202. <https://doi.org/10.1108/10444060610742317>.
- Barczak, G., McDonough, E. F., & Athanassiou, N. (2006). So you want to be a global project leader? *Research-Technology Management*, 49(3), 28–35. <https://doi.org/10.1080/08956308.2006.11657375>.
- Birkinshaw, J. (2022). Move fast and break things: Reassessing IB research in the light of the digital revolution. *Global Strategy Journal*, 12(4), 619–631. <https://doi.org/10.1002/gsj.1427>.
- Botella-Andreu, A., Pla-Barber, J., & Rocafull, A. P. (2025). Bounded-born globals: Rethinking internationalization in the platform economy. *Long Range Planning*, 102587. <https://doi.org/10.1016/j.lrp.2025.102587>.
- Breuer, C., Hueffmeier, J., & Hertel, G. (2016). Does trust matter more in virtual teams? A meta-analysis of trust and team effectiveness considering virtuality and documentation as moderators. *Journal of Applied Psychology*, 101(8), 1151–1177. <https://doi.org/10.1037/apl0000113>.
- Cai, Y. L. (2023). Strengthening perceptions of virtual team cohesiveness and effectiveness in new normal: A hyperpersonal communication theory perspective. *Asian Business & Management*, 22(4), 1649–1682. <https://doi.org/10.1057/s41291-023-00225-6>.
- Caligiuri, P., De Cieri, H., Minbaeva, D., Verbeke, A., & Zimmermann, A. (2020). International HRM insights for navigating the COVID-19 pandemic: Implications for future research and practice. *Journal of International Business Studies*, 51(5), 697–713. <https://doi.org/10.1057/s41267-020-00335-9>.
- Cannella, A. A., Jr., Park, J., & Lee, H. (2008). Top management team functional background diversity and firm performance: Examining the roles of team member colocation and environmental uncertainty. *Academy of Management Journal*, 51(4), 768–784. <https://doi.org/10.5465/AMJ.2008.33665310>.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749–778. <https://doi.org/10.1016/j.jm.2004.06.001>.
- Castellani, D., & Lavoratori, K. (2020). The lab and the plant: Offshore R&D and co-location with production activities. *Journal of International Business Studies*, 51, 121–137. <https://doi.org/10.1057/s41267-019-00255-3>.
- Choi, Y. (2025). Behind the scenes: Perceptions and management of conflict in teams with varying levels of virtuality and national diversity. *Negotiation and Conflict Management Research*, 18(1), 42–68. <https://doi.org/10.34891/nvjt-f878>.
- Codina, L. (2020). How to do traditional or systematic bibliographic reviews using academic databases. *Revista Orl*, 11(2), 139–153. <https://doi.org/10.14201/orl.22977>.
- Costa, A. C., Fulmer, C. A., & Anderson, N. R. (2018). Trust in work teams: An integrative review, multilevel model, and future directions. *Journal of Organizational Behavior*, 39(2), 169–184. <https://doi.org/10.1002/job.2213>.
- Cramton, C. D. (2001). The mutual knowledge problem and its consequences for dispersed collaboration. *Organization Science*, 12(3), 346–371. <https://doi.org/10.1287/orsc.12.3.346.10098>.

- Cunningham, J. L., Gino, F., Cable, D. M., & Staats, B. R. (2021). Seeing oneself as a valued contributor: Social worth affirmation improves team information sharing. *Academy of Management Journal*, 64(6), 1816–1841. <https://doi.org/10.5465/amj.2018.0790>.
- Cuyppers, I. R. P., Patel, C., Ertug, G., Li, J., & Cuyppers, Y. (2022). Top management teams in international business research: A review and suggestions for future research. *Journal of International Business Studies*, 53(3), 481–515. <https://doi.org/10.1057/s41267-021-00456-9>.
- da Silva, F. P., Mosquera, P., & Soares, M. E. (2022). Factors influencing knowledge sharing among IT geographically dispersed teams. *Technological Forecasting and Social Change*, 174, 121299. <https://doi.org/10.1016/j.techfore.2021.121299>.
- Davaei, M., Gunkel, M., Veglio, V., & Taras, V. (2022). The influence of cultural intelligence and emotional intelligence on conflict occurrence and performance in global virtual teams. *Journal of International Management*, 28(4), 100969. <https://doi.org/10.1016/j.intman.2022.100969>.
- De Jong, B. A., Dirks, K. T., & Gillespie, N. (2016). Trust and team performance: A meta-analysis of main effects, moderators, and covariates. *Journal of Applied Psychology*, 101(8), 1134–1150. <https://doi.org/10.1037/apl0000110>.
- DeChurch, L. A., Mesmer-Magnus, J. R., & Doty, D. (2013). Moving beyond relationship and task conflict: Toward a process-state perspective. *Journal of Applied Psychology*, 98(4), 559–578. <https://doi.org/10.1037/a0032896>.
- Diaz-Fernandez, M. C., Gonzalez-Rodriguez, M. R., & Simonetti, B. (2020). Top management team diversity and high performance: An integrative approach based on upper echelons and complexity theory. *European Management Journal*, 38(1), 157–168. <https://doi.org/10.1016/j.emj.2019.06.006>.
- Dunning, J. H. (2001). The eclectic (OLI) paradigm of international production: Past, present and future. *International Journal of the Economics of Business*, 8(2), 173–190. <https://doi.org/10.1080/13571510110051441>.
- Feitosa, J., Grossman, R., Kramer, W. S., & Salas, E. (2020). Measuring team trust: A critical and meta-analytical review. *Journal of Organizational Behavior*, 41(5), 479–501. <https://doi.org/10.1002/job.2436>.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, 57(5), 271–282. <https://doi.org/10.1037/h0056932>.
- Garcia-Granero, A., Fernandez-Mesa, A., Jansen, J. J. P., & Vega-Jurado, J. (2018). Top management team diversity and ambidexterity: The contingent role of shared responsibility and CEO cognitive trust. *Long Range Planning*, 51(6), 881–893. <https://doi.org/10.1016/j.lrp.2017.11.001>.
- Gaur, A., & Kumar, M. (2018). A systematic approach to conducting review studies: An assessment of content analysis in 25 years of IB research. *Journal of World Business*, 53(2), 280–289. <https://doi.org/10.1016/j.jwb.2017.11.003>.
- Gibson, C. B., & Cohen, S. G. (2003). *Virtual teams that work: Creating conditions for virtual team effectiveness*. John Wiley & Sons.
- Gilson, L. L., Maynard, M. T., Young, N. C. J., Vartiainen, M., & Hakonen, M. (2015). Virtual teams research: 10 years, 10 themes, and 10 opportunities. *Journal of Management*, 41(5), 1313–1337. <https://doi.org/10.1177/0149206314559946>.
- Gonzalez-Loureiro, M., Dabic, M., & Puig, F. (2014). Global organizations and supply chain new research avenues in the international human resource management. *International Journal of Physical Distribution & Logistics Management*, 44(8–9), 689–712. <https://doi.org/10.1108/IJPDLM-08-2013-0222>.
- Greimel, N. S., Kanbach, D. K., & Chelaru, M. (2023). Virtual teams and transformational leadership: An integrative literature review and avenues for further research. *Journal of Innovation & Knowledge*, 8(2), 100351. <https://doi.org/10.1016/j.jik.2023.100351>.
- Hambrick, D. C. (1994). Top management groups: A conceptual integration and reconsideration of the “team” label. *Research in Organizational Behavior*, 16, 171.
- Hambrick, D. C., & Cannella, A. A. (2004). CEOs who have COOs: Contingency analysis of an unexplored structural form. *Strategic Management Journal*, 25(10), 959–979. <https://doi.org/10.1002/smj.407>.
- Hambrick, D. C., Cho, T. S., & Chen, M. (1996). The influence of top management team heterogeneity on firms’ competitive moves. *Administrative Science Quarterly*, 659–684. <https://doi.org/10.2307/2393871>.
- Hambrick, D. C., Humphrey, S. E., & Gupta, A. (2015). Structural interdependence within top management teams: A key moderator of upper echelons predictions. *Strategic Management Journal*, 36(3), 449–461. <https://doi.org/10.1002/smj.2230>.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons - the organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206. <https://doi.org/10.2307/258434>.
- Handke, L., Costa, P. L., Hincapie, M. X., & Johnson, M. D. (2025). Not even remotely close: How co-location imbalance affects subgroup formation in hybrid teams. *Journal of Organizational Behavior*. <https://doi.org/10.1002/job.2875>.
- Haque, B., & Pawar, K. S. (2001). Improving the management of concurrent new product development using process modelling and analysis. *R & D Management*, 31(1), 27–40. <https://doi.org/10.1111/1467-9310.00194>.
- Hinds, P. J., & Bailey, D. E. (2003). Out of sight, out of sync: Understanding conflict in distributed teams. *Organization Science*, 14(6), 615–632. <https://doi.org/10.1287/orsc.14.6.615.24872>.
- Hinds, P. J., & Mortensen, M. (2005). Understanding conflict in geographically distributed teams: The moderating effects of shared identity, shared context, and spontaneous communication. *Organization Science*, 16(3), 290–307. <https://doi.org/10.1287/orsc.1050.0122>.

- Hu, N., Chen, Z., Gu, J., Huang, S., & Liu, H. (2017). Conflict and creativity in inter-organizational teams the moderating role of shared leadership. *International Journal of Conflict Management*, 28(1), 74–102. <https://doi.org/10.1108/IJCMA-01-2016-0003>.
- Hung, K., & Lin, C. (2013). More communication is not always better? the interplay between effective communication and interpersonal conflict in influencing satisfaction. *Industrial Marketing Management*, 42(8), 1223–1232. <https://doi.org/10.1016/j.indmarman.2013.05.002>.
- Hutzschenreuter, T., Kleindienst, I., & Lange, S. (2016). The concept of distance in international business research: A review and research agenda. *International Journal of Management Reviews*, 18(2), 160–179. <https://doi.org/10.1111/ijmr.12065>.
- Jarvenpaa, S. L., & Leidner, D. E. (1999). Communication and trust in global virtual teams. *Organization Science*, 10(6), 791–815. <https://doi.org/10.1287/orsc.10.6.791>.
- Kargina, M. (2023). Cultural differences in global virtual teams: Mapping knowledge and identifying research directions. *Journal of Management & Organization*, 1–21. <https://doi.org/10.1017/jmo.2023.41>.
- Kirkman, B. L., Rosen, B., Tesluk, P. E., & Gibson, C. B. (2004). The impact of team empowerment on virtual team performance: The moderating role of face-to-face interaction. *Academy of Management Journal*, 47(2), 175–192. <https://doi.org/10.5465/20159571>.
- Klang, D., Wallnöfer, M., & Hacklin, F. (2014). The business model paradox: A systematic review and exploration of antecedents. *International Journal of Management Reviews*, 16(4), 454–478. <https://doi.org/10.1111/ijmr.12030>.
- Kristinsson, K., Candi, M., & Saemundsson, R. J. (2016). The relationship between founder team diversity and innovation performance: The moderating role of causation logic. *Long Range Planning*, 49(4), 464–476. <https://doi.org/10.1016/j.lrp.2015.12.013>.
- Kusielas, S., Agoglia, C. P., & Wang, E. Y. (2023). The effect of team member proximity and assignment length on audit staff reliance on a supervisor's preferences. *Accounting, Organizations and Society*, 105, 101391. <https://doi.org/10.1016/j.aos.2022.101391>.
- Lakemond, N., & Berggren, C. (2006). Co-locating NPD? the need for combining project focus and organizational integration. *Technovation*, 26(7), 807–819. <https://doi.org/10.1016/j.technovation.2005.04.004>.
- Li, J. T., Xin, K. R., Tsui, A., & Hambrick, D. C. (1999). Building effective international joint venture leadership teams in China. *Journal of World Business*, 34(1), 52–68. [https://doi.org/10.1016/S1090-9516\(99\)00007-3](https://doi.org/10.1016/S1090-9516(99)00007-3).
- Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management*, 32(5), 646–672. <https://doi.org/10.1177/0149206306290712>.
- Mattarelli, E., Bertolotti, F., Prencipe, A., & Gupta, A. (2022). The effect of role-based product representations on individual and team coordination practices: A field study of a globally distributed new product development team. *Organization Science*, 33(4), 1423–1451. <https://doi.org/10.1287/orsc.2021.1487>.
- Maznevski, M. L., & Chudoba, K. M. (2000). Bridging space over time: Global virtual team dynamics and effectiveness. *Organization Science*, 11(5), 473–492. <https://doi.org/10.1287/orsc.11.5.473.15200>.
- McHugh, P., & Duane, J. (2025). Upper echelons theory: Research at the nexus of CEO psychological profiles, gender, and firm diversity. *Journal of Management & Organization*, 1–22. <https://doi.org/10.1017/jmo.2025.10041>.
- Monge, P. R., Rothman, L. W., Eisenberg, E. M., Miller, K. I., & Kriste, K. K. (1985). The dynamics of organizational proximity. *Management Science*, 31(9), 1129–1141. <https://doi.org/10.1287/mnsc.31.9.1129>.
- Moosa, L., Pearson, H., & Mthombeni, M. (2023). Invoking team trust to facilitate performance management in the context of virtual teams. *South African Journal of Business Management*, 54(1), a3823. <https://doi.org/10.4102/sajbm.v54i1.3823>.
- Mortensen, M., & Hinds, P. J. (2001). Conflict and shared identity in geographically distributed teams. *International Journal of Conflict Management*, 12(3), 212–238. <https://doi.org/10.1108/eb022856>.
- Muethel, M., & Hoegl, M. (2010). Cultural and societal influences on shared leadership in globally dispersed teams. *Journal of International Management*, 16(3), 234–246. <https://doi.org/10.1016/j.intman.2010.06.003>.
- O'Leary, M. B., & Cummings, J. N. (2007). The spatial, temporal, and configurational characteristics of geographic dispersion in teams. *Mis Quarterly*, 31(3), 433–452. <https://doi.org/10.2307/25148802>.
- O'Leary, M. B., & Mortensen, M. (2010). Go (con)figure: Subgroups, imbalance, and isolates in geographically dispersed teams. *Organization Science*, 21(1), 115–131. <https://doi.org/10.1287/orsc.1090.0434>.
- Pla-Barber, J., Botella-Andreu, A., & Villar, C. (2021). Intermediate units in multinational corporations: A resource dependency view on coordinative versus entrepreneurial roles. *International Business Review*, 30(1), 101773. <https://doi.org/10.1016/j.ibusrev.2020.101773>.
- Polzer, J. T., Crisp, C. B., Jarvenpaa, S. L., & Kim, J. W. (2006). Extending the faultline model to geographically dispersed teams: How colocated subgroups can impair group functioning. *Academy of Management Journal*, 49(4), 679–692. <https://doi.org/10.5465/AMJ.2006.22083024>.

- Ponomareva, Y., Uman, T., Bodolica, V., & Wennberg, K. (2022). Cultural diversity in top management teams: Review and agenda for future research. *Journal of World Business*, 57(4), 101328. <https://doi.org/10.1016/j.jwb.2022.101328>
- Presbitero, A., & Teng-Calleja, M. (2019). Ethical leadership, team leader's cultural intelligence and ethical behavior of team members implications for managing human resources in global teams. *Personnel Review*, 48(5), 1381–1392. <https://doi.org/10.1108/PR-01-2018-0016>.
- Ragatz, G. L., Handfield, R. B., & Scannell, T. V. (1997). Success factors for integrating suppliers into new product development. *Journal of Product Innovation Management*, 14(3), 190–202. [https://doi.org/10.1016/S0737-6782\(97\)00007-6](https://doi.org/10.1016/S0737-6782(97)00007-6).
- Salomo, S., Keinschmidt, E. J., & de Brentani, U. (2010). Managing new product development teams in a globally dispersed NPD program. *Journal of Product Innovation Management*, 27(7), 955–971. <https://doi.org/10.1111/j.1540-5885.2010.00764.x>.
- Schreiber, E., Van Dijk, D., & Drory, A. (2025). The effect of cultural diversity on employees' trust in their teammates: Transformational leadership as a moderator. *Leadership & Organization Development Journal*, 46(4), 593–611. <https://doi.org/10.1108/LODJ-10-2024-0661>.
- Sidhu, J. S., & Volberda, H. W. (2011). Coordination of globally distributed teams: A co-evolution perspective on offshoring. *International Business Review*, 20(3), 278–290. <https://doi.org/10.1016/j.ibusrev.2011.01.006>.
- Sinnemann, M. F., & Weiss, M. M. (2025). Team virtuality and innovation: A meta-analysis of the moderating role of team design. *Journal of Organizational Behavior*, 46(6), 867–888. <https://doi.org/10.1002/job.2889>.
- Tavoletti, E., Bernhard, T., Dong, L., & Taras, V. (2023). Peer performance evaluations in global virtual teams: A longitudinal analysis of surface- and deep-level attributes. *Journal of International Management*, 29(3), 101029. <https://doi.org/10.1016/j.intman.2023.101029>.
- Taylor, S., & Spicer, A. (2007). Time for space: A narrative review of research on organizational spaces. *International Journal of Management Reviews*, 9(4), 325–346. <https://doi.org/10.1111/j.1468-2370.2007.00214.x>.
- Vermeulen, F., & Barkema, H. (2002). Pace, rhythm, and scope: Process dependence in building a profitable multinational corporation. *Strategic Management Journal*, 23(7), 637–653. <https://doi.org/10.1002/smj.243>.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>.
- Vuchkovski, D., Zalaznik, M., Mitrega, M., & Pfajfar, G. (2023). A look at the future of work: The digital transformation of teams from conventional to virtual. *Journal of Business Research*, 163, 113912. <https://doi.org/10.1016/j.jbusres.2023.113912>.
- Wakefield, R. L., Leidner, D. E., & Garrison, G. (2008). A model of conflict, leadership, and performance in virtual teams. *Information Systems Research*, 19(4), 434–455. <https://doi.org/10.1287/isre.1070.0149>.
- Warkentin, M. E., Sayeed, L., & Hightower, R. (1997). Virtual teams versus face-to-face teams: An exploratory study of a web-based conference system. *Decision Sciences*, 28(4), 975–996. <https://doi.org/10.1111/j.1540-5915.1997.tb01338.x>.
- Weng, Q., Windeler, J. B., Maruping, L. M., & Venkatesh, V. (2024). Bridge the gap or mind the gap? The role of leader coaching and communication technologies in configurationally dispersed teams. *Information & Management*, 61(6), 104000. <https://doi.org/10.1016/j.im.2024.104000>.
- Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1), 91–121. <https://doi.org/10.2307/256474>.
- Wohlin, C. (2014). Guidelines for snowballing in systematic literature studies and a replication in software engineering [Paper presented]. The Proceedings of the 18th International Conference on Evaluation and Assessment in Software Engineering, 1–10. <https://doi.org/10.1145/2601248.2601268>.
- Wong, S. I., Zhang, L., Cerne, M., & Moe, N. B. (2024). Influence of digital communication configuration in virtual teams: A faultline perspective. *Journal of Management Information Systems*, 41(4), 1111–1141. <https://doi.org/10.1080/07421222.2024.2415776>.
- Xie, X., Wang, W., & Qi, Z. (2015). The effects of TMT faultline configuration on a firm's short-term performance and innovation activities. *Journal of Management & Organization*, 21(5), 558–572. <https://doi.org/10.1017/jmo.2015.29>.
- Yu, T., & Cannella, J. A. A. (2007). Rivalry between multinational enterprises: An event history approach. *Academy of Management Journal*, 50(3), 665–686. <https://doi.org/10.5465/amj.2007.25527425>.

Isabel Gausi-Carot is Assistant Professor at the University of Valencia (Spain). Her research focus is on TMTs and international business. She teaches courses in strategic management and international business at the undergraduate and master's levels. Before starting out in research and teaching, Professor Gausi-Carot worked as a top manager in several leading Spanish companies within a wide range of industries. She holds a degree in business and economics from the University of Valencia and a human resources management master from IE University (Madrid).

Ana Botella-Andreu has a degree in economics and a master's in international business. In 2019, she obtained a PhD from the University of Valencia. Currently, she works as Associate Professor at the University of Valencia, where she teaches international business and strategic management. Her main research interests include global strategy, multinational corporations and subsidiary management, and multinational geographic location. She has published in journals including *International Journal of Management Reviews*, *International Business Review*, and *Management International Review*.

Ana García-Granero has a degree in economics and a master's in strategic management. In June 2013, she obtained a PhD from the University of Valencia. She has been a researcher at INGENIO (CSIC-UPV) and Grenoble Ecole de Management (GEM). Currently, she works as Associate Professor at the University of Valencia, where she teaches courses related to strategic management and innovation. Her main research interests include TMTs, open innovation, and knowledge transfer. She has published in journals including *Long Range Planning*, *Journal of Business Research*, and *European Management Journal*.

Cite this article: Gausi-Carot, I., Botella-Andreu, A., & García-Granero, A. (2026). An international spatial perspective of upper echelons: A review and research agenda. *Journal of Management & Organization*, 1–37. <https://doi.org/10.1017/jmo.2026.10102>