

Remote Leadership in Higher Education/Public Sector: A Comparative Bibliometric Analysis of the Global South vs. the Global North

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ABSTRACT

The rapid expansion of remote and hybrid work arrangements has positioned remote leadership as a critical concern for higher education institutions and public-sector organizations worldwide. This study aims to map and compare the global research landscape on remote leadership by conducting a comparative bibliometric analysis between the Global South and the Global North. Using data retrieved from the Scopus database and analyzed with VOSviewer, the study examines publication trends, co-authorship networks, citation structures, and thematic evolution within the field. The findings indicate that remote leadership has emerged as a central and integrative concept, closely linked to e-leadership, virtual teams, and established leadership theories such as transformational and authentic leadership. More recent research increasingly emphasizes relational and human-centered themes, including communication, trust, and employee outcomes, particularly in higher education contexts. The analysis also reveals a strong concentration of knowledge production and collaboration networks in the Global North, while contributions from the Global South remain limited and contextually constrained by digital infrastructure and institutional capacity. Overall, this study provides a systematic overview of the intellectual structure and developmental trajectory of remote leadership research and highlights the need for more inclusive, context-sensitive, and regionally grounded scholarship to advance leadership theory and practice in digitally mediated public and educational organizations.

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1. Introduction

Remote and hybrid work have shifted from a crisis response into a durable feature of how many organizations operate, especially in knowledge-intensive settings where coordination and service delivery can be mediated through digital platforms [1]. This shift has elevated “remote leadership” (often

discussed as virtual leadership or e-leadership) from a niche topic into a mainstream governance and management concern, because leaders must now sustain direction, motivation, trust, and accountability without relying on continuous physical co-presence [2]. Evidence across sectors indicates that leading at a distance reshapes communication practices,

monitoring, team cohesion, and employee experience, making leadership capability inseparable from digital infrastructure and mediated interaction [3].

In higher education, the acceleration of digital transformation during and after COVID-19 exposed how universities and colleges depend on leadership to maintain teaching continuity, staff engagement, and institutional resilience under distributed work conditions [4]. Studies in the higher education sector show that e-leadership is associated with critical employee outcomes such as engagement, well-being, and organizational citizenship behaviors, suggesting that leadership enacted through information technologies can shape institutional performance in measurable ways. At the same time, higher education's complex stakeholder environment (students, faculty, staff, regulators, and communities) makes remote leadership particularly challenging because instructional quality, student services, and internal governance must be coordinated across multiple platforms and professional subcultures [5], [6].

In the public sector, remote leadership intersects with a distinct set of constraints: legal accountability, public service motivation, continuity of essential services, and the need to maintain trust and legitimacy while operating through digital channels [7]. Telework reforms and remote management in government agencies have been linked to changing employee motivation and performance dynamics, and leadership style can moderate these effects. Recent scholarship also emphasizes that e-leadership is increasingly salient in public administration because digitalization and e-government initiatives are expanding the scope of technology-mediated management, even as public organizations face higher compliance requirements and risk aversion than many private-sector settings [8], [9].

A comparative lens between the Global South and the Global North is essential because remote leadership is not only a managerial issue but also an infrastructure- and inequality-

sensitive phenomenon. Across higher education and public services, the ability to lead remotely depends on connectivity, platform access, digital skills, and institutional support systems, all of which are unevenly distributed [10]. Reviews of the post-COVID higher education landscape highlight persistent digital inequalities between (and within) Global South and Global North contexts, affecting participation, institutional capability, and the sustainability of digital practices. Consequently, "remote leadership" may be studied, operationalized, and valued differently depending on regional resources, policy environments, and the intensity of digital divides [11].

Given the rapid expansion of publications, bibliometric analysis is an appropriate approach for clarifying how the field has evolved, where knowledge clusters are forming, and which themes dominate (e.g., trust-building in virtual teams, technology-mediated communication, well-being, performance, and governance). Bibliometric methods support systematic mapping of co-authorship networks, keyword co-occurrence, co-citation structures, and thematic evolution, enabling researchers to identify intellectual foundations and emerging fronts across disciplines. Recent methodological guidance and protocols further strengthen the reliability of bibliometric workflows (data retrieval, cleaning, visualization, and interpretation), making it feasible to conduct a comparative mapping between Global South and Global North research landscapes.

Despite growing interest in remote leadership, the literature remains fragmented across domains (higher education vs. public sector), terminology (remote/virtual/e-leadership), and regional contexts, making it difficult to see whether Global South research follows the same trajectories, collaborations, and thematic priorities as the Global North. Existing work often focuses on case-based or sector-specific insights (e.g., leadership practices during pandemic disruption), but there is limited consolidated evidence on

bibliometric analysis. This gap motivates a comparative bibliometric analysis that can systematically reveal how remote leadership research is structured across the Global South and the Global North, particularly within higher education and public-sector settings. This study aims to conduct a bibliometric analysis of remote leadership research in higher education and the public sector by contrasting Global South and Global North publication patterns.

2. Method

This study employs a bibliometric research design to systematically map and compare the scientific literature on remote leadership in higher education and the public sector across the Global South and the Global North. Data were retrieved exclusively from the Scopus database, chosen for its broad multidisciplinary coverage and high indexing

standards, ensuring comprehensive capture of peer-reviewed journal articles, conference proceedings, and book chapters pertinent to the topic. A targeted search strategy was developed using a combination of keywords related to remote leadership (e.g., "remote leadership," "virtual leadership," "e-leadership") and sector filters for higher education and public sector contexts, as well as regional identifiers to differentiate Global South and Global North contributions. Retrieved records were exported in standardized formats (e.g., .CSV, .RIS) and cleaned to remove duplicates and irrelevant entries. Bibliometric analysis was conducted using VOSviewer, which enabled visualization and examination of co-authorship networks, keyword co-occurrence, citation, and thematic clusters.

3. Result and Discussion

Co-Authorship Analysis

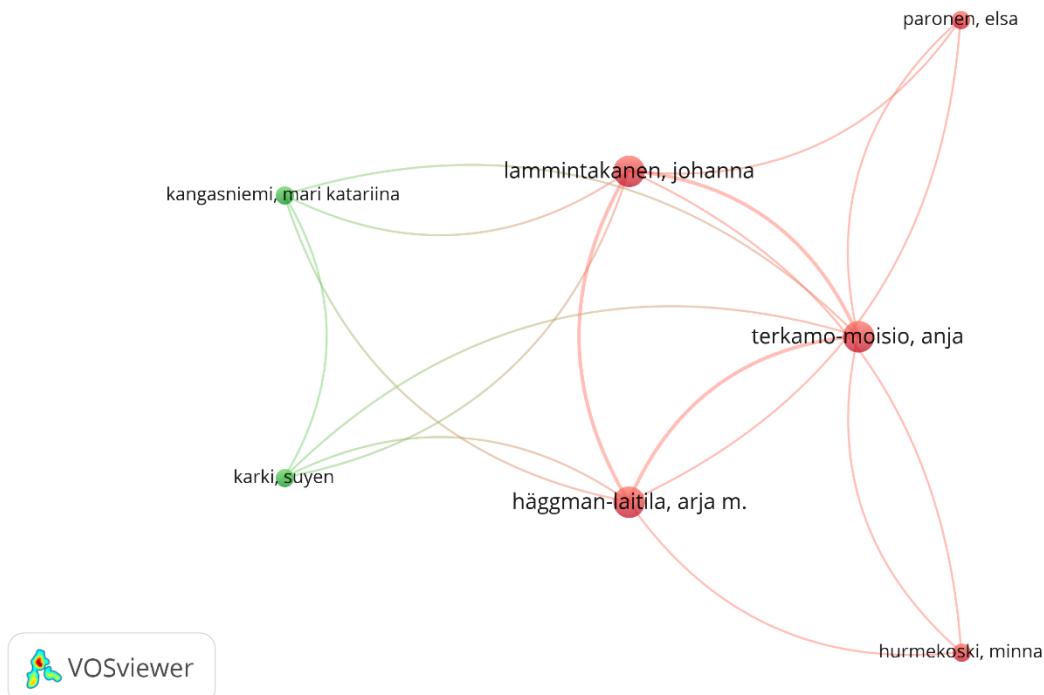


Figure 1. Author Visualization

Source: Data Analysis

Figure 1 illustrates a relatively concentrated and closely connected scholarly

community in remote leadership research, dominated by a central cluster of authors from

the Global North, particularly Nordic countries. The red cluster (anchored by Terkamo-Moisio, Anja; Lammintakanen, Johanna; and Häggman-Laitila, Arja M.) forms the intellectual core of the network, indicating strong and repeated collaboration patterns that likely drive foundational and highly cited contributions in the field. Peripheral yet connected authors such as Paronen, Elsa and Hurmekoski, Minna extend this core, suggesting thematic

specialization or supporting roles within the same research stream. In contrast, the smaller green cluster (represented by Kangasniemi, Mari Katariina; Karki, Suyen) shows weaker but visible links to the main cluster, implying either emerging collaborations or parallel research trajectories that are beginning to integrate into the dominant discourse.

Citation Analysis

Table 1. Top Cited Literature

Citations	Authors and year	Title
636	[9]	Work from home during the COVID-19 outbreak: The impact on employees' remote work productivity, engagement, and stress
467	[12]	The Ecology of Team Science. Understanding Contextual Influences on Transdisciplinary Collaboration
373	[8]	A mindfulness-based intervention to increase resilience to stress in university students (the Mindful Student Study): a pragmatic randomised controlled trial
353	[7]	Education policies for raising student learning: The Finnish approach
321	[6]	E-Leadership and Teleworking in Times of COVID-19 and Beyond: What We Know and Where Do We Go
313	[5]	Academic Leadership in a Time of Crisis: The Coronavirus and COVID-19
279	[4]	Leadership matters in crisis-induced digital transformation: how to lead service employees effectively during the COVID-19 pandemic
223	[3]	Post-pandemic office work: Perceived challenges and opportunities for a sustainable work environment
209	[2]	Vulnerability and resilience of remote rural communities to shocks and global changes: Empirical analysis from Solomon Islands

Source: Scopus Database

Thematical Visualization

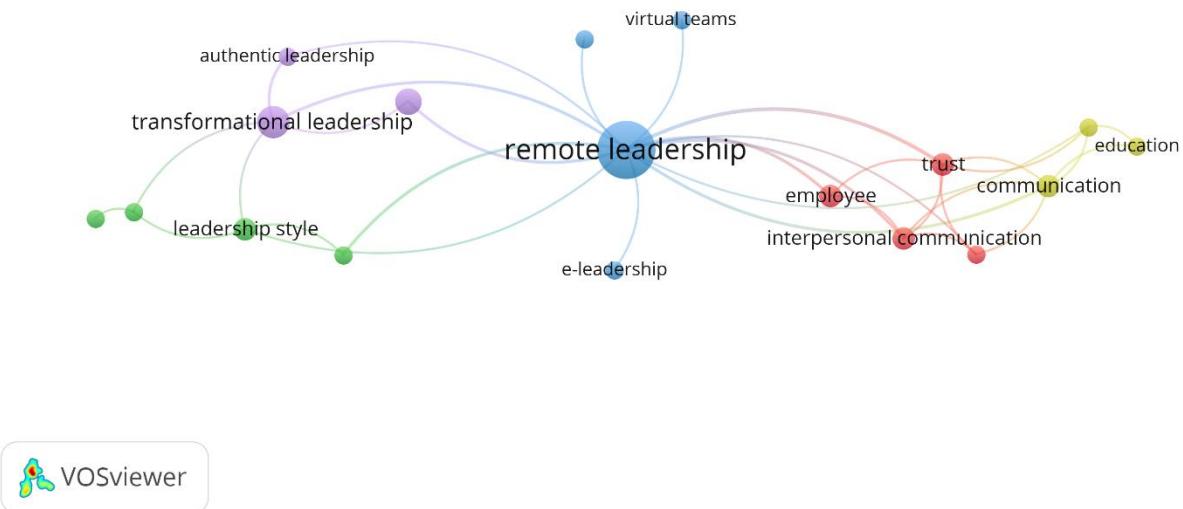


Figure 2. Network Visualization

Source: Data Analysis

Figure 2 places “remote leadership” as the dominant and most central concept, indicating that it functions as the primary integrative construct in this body of literature. Its large node size and multiple linkages suggest that research on remote leadership serves as the conceptual hub connecting diverse theoretical perspectives, relational mechanisms, and applied contexts. Closely linked terms such as “e-leadership” and “virtual teams” highlight the technological and structural foundations of the field, emphasizing leadership enacted through digital platforms and geographically dispersed work arrangements. A prominent thematic stream emerging from the map relates to leadership theories and styles, particularly transformational leadership, authentic leadership, and leadership style. These concepts cluster around remote leadership, indicating that scholars frequently draw on established leadership theories to explain how influence, motivation, and meaning are maintained in virtual or distance-based settings. This suggests that rather than creating entirely new

leadership paradigms, much of the literature adapts and reinterprets classical leadership frameworks to suit remote and technology-mediated environments.

Another strong cluster centers on communication and relational processes, including communication, interpersonal communication, and trust. The dense connections between these keywords and remote leadership signal that effective communication and trust-building are perceived as core challenges in remote contexts. The emphasis on interpersonal communication implies that even in digitally mediated settings, leadership effectiveness depends heavily on social interaction quality, clarity of messaging, and leaders’ ability to foster relational closeness despite physical distance. The presence of employee-related keywords (such as employee) indicates a focus on individual-level outcomes and experiences under remote leadership. This reflects a growing concern with how remote leadership affects employee engagement, well-being, performance, and psychological safety.

The proximity of these terms to trust and communication further suggests that employee outcomes are often theorized as indirect effects, mediated by relational and communicative mechanisms rather than purely structural or technological factors. The appearance of education as a connected but more peripheral keyword points to the relevance of remote

leadership within higher education contexts, while also indicating that this sector may still be underdeveloped relative to organizational or management-focused studies. Its linkage to communication suggests that educational leadership research emphasizes pedagogical coordination, academic interaction, and stakeholder communication in remote settings.

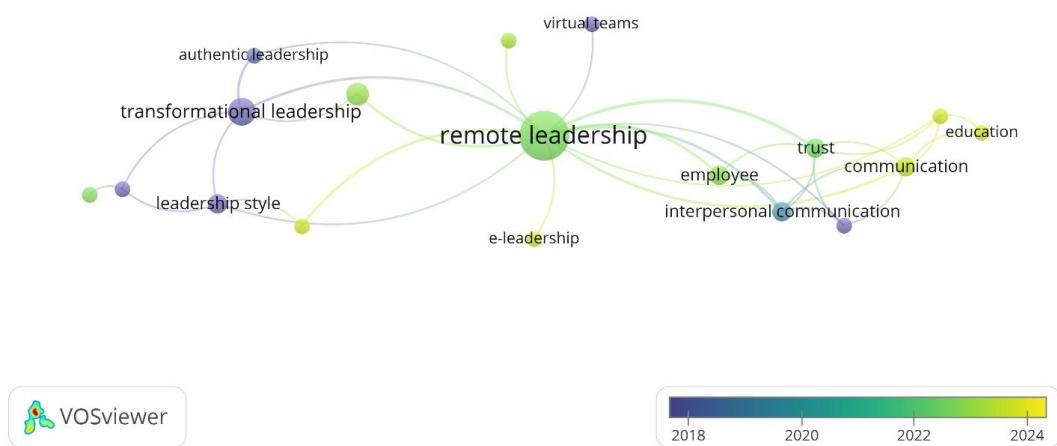


Figure 3. Overlay Visualization

Source: Data Analysis

Figure 3 reveals “remote leadership” as the central and most intensively studied concept, with its green-yellow coloration indicating sustained and increasing research attention in recent years. The strong links connecting remote leadership to e-leadership and virtual teams suggest that the field has evolved from earlier technology-oriented leadership discussions toward a broader focus on leading distributed work arrangements. This temporal progression reflects how advances in digital collaboration tools and the normalization of remote work have expanded the conceptual scope of leadership beyond purely technical mediation. A notable shift over time is observed in the growing emphasis on relational and human-centered themes, particularly communication, interpersonal communication, trust, and employee outcomes. These keywords appear in brighter colors,

signaling their emergence as more recent research priorities, especially after 2020. This trend suggests that scholars increasingly recognize that the effectiveness of remote leadership depends less on technology itself and more on leaders’ ability to foster trust, maintain meaningful interaction, and support employees’ psychological and social needs in virtual environments. Earlier foundational themes (such as transformational leadership, authentic leadership, and leadership style) are shown in cooler colors, indicating their role as theoretical roots that informed initial studies on remote leadership. Over time, these leadership theories have been adapted rather than replaced, providing conceptual grounding for newer research that applies them to specific sectors such as education and higher education leadership.

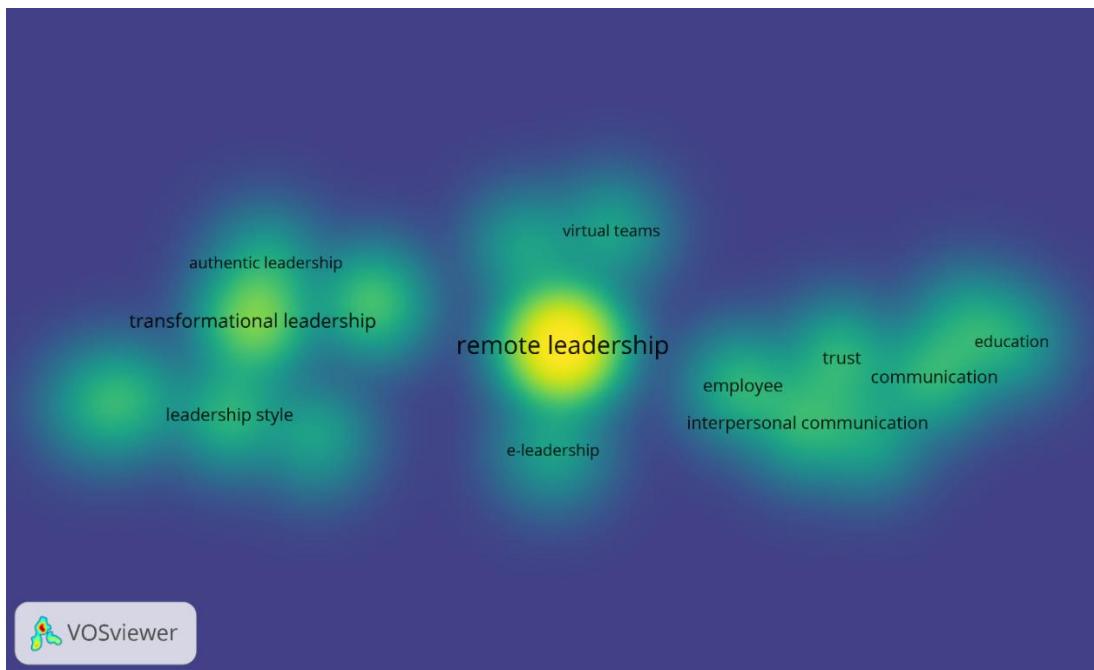


Figure 4. Density Visualization

Source: Data Analysis

Figure 4 highlights remote leadership as the most dominant and intensely researched concept in the field, indicated by the bright yellow area at the center of the map. This concentration reflects its role as the primary focal point that integrates multiple research streams, including e-leadership and virtual teams, which appear in close proximity. The density around these terms suggests a sustained scholarly interest in understanding how leadership operates in technology-mediated and geographically dispersed work settings, positioning remote leadership as a core construct in contemporary organizational and educational research. Surrounding clusters with moderate density emphasize two complementary thematic areas. On the left, transformational leadership, authentic leadership, and leadership style form a theoretical foundation, indicating that established leadership theories continue to inform interpretations of remote leadership. On the right, a human-relational cluster (comprising communication, interpersonal communication, trust, employee, and education) signals a strong applied orientation

toward relational processes and sector-specific contexts, particularly higher education.

Discussion

Practical Implication

The findings of this bibliometric analysis offer several practical implications for leaders and policymakers in higher education and the public sector, particularly across Global South and Global North contexts. First, the strong emphasis on communication, trust, and interpersonal interaction highlights that effective remote leadership is less about technological adoption alone and more about relational competence. Leaders should therefore prioritize structured communication practices, transparent decision-making, and trust-building mechanisms when managing remote or hybrid teams. In higher education, this implies investing in leadership development programs that strengthen digital communication, academic coordination, and employee engagement across virtual platforms. In the public sector, remote leadership practices should be aligned with accountability frameworks and service continuity, ensuring

that digital leadership does not weaken public trust or organizational legitimacy. Second, the dominance of research from Global North contexts (often characterized by stronger digital infrastructure and institutional support) suggests that Global South institutions may face distinct implementation challenges. Policymakers in the Global South should therefore contextualize remote leadership strategies by addressing digital divides, capacity building, and uneven access to technology. Practical interventions such as targeted digital literacy programs, hybrid governance models, and adaptive leadership guidelines can help mitigate structural constraints. Overall, this study underscores that remote leadership effectiveness depends on aligning leadership behaviors with institutional capacity, sectoral demands, and regional realities.

Theoretical Contributions

From a theoretical perspective, this study contributes to the literature by systematically mapping the intellectual structure and thematic evolution of remote leadership research across higher education and public-sector domains. The findings demonstrate that remote leadership research is deeply rooted in classical leadership theories (particularly transformational and authentic leadership) yet increasingly reoriented toward relational and employee-centered constructs such as trust, communication, and well-being. This confirms that remote leadership is not a standalone theoretical paradigm but rather an adaptive extension of established leadership frameworks within digitally mediated contexts. Importantly, the comparative Global South–Global North perspective advances theory by revealing asymmetries in knowledge production and thematic emphasis. While Global North research tends to dominate foundational theory-building and collaboration networks, emerging themes related to education, employee experience, and contextual leadership suggest opportunities for more pluralistic and context-sensitive theorization.

By integrating bibliometric evidence, this study provides a macro-level theoretical synthesis that complements micro-level empirical studies and encourages future research to incorporate institutional, cultural, and infrastructural dimensions into remote leadership theory.

Limitations of The Study

Despite its contributions, this study has several limitations that should be acknowledged. First, the analysis relies solely on the Scopus database, which, although comprehensive, may underrepresent regional journals, non-English publications, and locally grounded studies, particularly from the Global South. As a result, some context-specific insights and indigenous leadership perspectives may not be fully captured. Second, bibliometric analysis emphasizes patterns of publication, citation, and keyword relationships rather than the substantive quality or empirical rigor of individual studies. Consequently, the findings should be interpreted as indicative of research trends and structures rather than definitive evidence of causal relationships. Third, the classification of Global South and Global North is necessarily simplified and may mask intra-regional diversity and institutional variation. Leadership practices and digital readiness can differ significantly within regions, which bibliometric aggregation cannot fully reflect. Future studies could address these limitations by incorporating multiple databases, qualitative content analysis, or mixed-method approaches to deepen contextual understanding. Nonetheless, within these constraints, the present study provides a robust and systematic overview of the remote leadership research landscape and lays a strong foundation for further empirical and comparative inquiry.

4. Conclusion

This study provides a comprehensive bibliometric overview of remote leadership research in higher education and the public sector by systematically comparing scholarly developments in the Global South and the

Global North. The findings reveal that remote leadership has emerged as a central and integrative concept, grounded in established leadership theories while increasingly oriented toward relational processes such as communication, trust, and employee experience. The analysis highlights a concentration of knowledge production and collaboration networks in the Global North, alongside emerging but still limited contributions from the Global South that reflect contextual challenges related to digital

infrastructure and institutional capacity. By mapping intellectual structures, thematic evolution, and research frontiers, this study clarifies how remote leadership scholarship has evolved from theory adaptation toward more applied, human-centered, and context-sensitive inquiries. Overall, the study underscores the need for more inclusive and regionally grounded research to advance remote leadership theory and practice in an increasingly digital and globally interconnected public and higher education landscape.

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