# The Evolution of Work from Home: A Systematic Literature Review of Its Past, Present and Future Trajectories

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| ARTICLE DETAILS | ABSTRACT |
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| **Research Paper** <br> **Accepted:** 24-07-2025 <br> **Published:** 10-08-2025 <br><br> **Keywords:** <br> *Remote Work, Hybrid Work, Work-from-Home, Organizational Strategy, Employee Well-being, Digital Transformation* | The transformation of work from home (WFH) from a peripheral practice to a mainstream work model has significantly reshaped contemporary organizational dynamics. This study offers qualitative analysis of WFH literature spanning from 2014 to 2025. Systematically addressing its historical roots, present developments and future trajectories. Anchored in five research objectives, the analysis traces the thematic evolution from early concerns around policy, infrastructure and digital readiness to pandemic-driven flexibility and engagement, culminating in forward-looking themes such as sustainability, hybrid models and digital integration. Through topic modelling, thematic mapping, correspondence analysis and principal component analysis the analysis distils the evolving scholarly conversation on employee outcomes, organizational practices and assessment indices. The results stress the significance of adaptive leadership, solid digital infrastructure and employee-centric approaches to facilitate the changing remote/hybrid work reality. The analysis also outlines directions for future research, such as AI-supported remote work, ethical surveillance, virtual cooperation and team resilience in dispersed teams. Through the integration of diverse research streams we structure an agenda to guide managerial practice, academic research and policy making on the future of work. |

## INTRODUCTION

The idea of working from home (WFH) has seen a complete overhaul, from something fringe to now being part-and-parcel of contemporary work culture. This paper systematically maps the intellectual, empirical and thematic development of WFH informed by a systematic literature review, providing an overview of its historical antecedents, contemporary players and future paths.

Work from home theory the development of WFH has been underpinned by several key theories that have influenced academic debate and empirical investigation over a number of years. The Job Demands-Resources (JD-R) Theory (Demerouti, 2001) served as a central lens through which to interpret how remote work facilitated or impeded employee well-being, productivity and engagement through the juxtaposition of work-related demands and resources. Analyses in WFH settings drew upon Work-Life Border Theory (Clark, 2000) and Boundary Theory (Ashforth, 2000) to understand how individuals negotiated the merging of professional and personal activities. The Sociotechnical Systems Theory (Trist, 1951) was key in studying the dynamics between humans and technology that facilitated remote working. It had also been widely used to examine communication effectiveness within virtual environments (Daft, 1986). These help to explain how context and tasks had influenced the adoption and the effectiveness of the WFH mode. Taken together, these theoretical bases all influenced the direction of scholarly attention with regard to WFH research and the evolution of WFH from pre-pandemic flexibility experiments to post-pandemic strategic imperatives.

Work before the pandemic largely centred on the likes of communication, trust, leadership and performance in virtual teams (Barrero, 2023) Technical innovations in these years have progressively allowed remote work to spread, especially in IT and knowledge-based sectors. Yet the post-pandemic period between 2019 and 2023 leaped toward a high adoption of WFH where about 40% of US employees tele-commuted at least one day per week (Barrero, 2023). The research focus shifted toward well-being, work-life balance, job engagement and team cohesion while hybrid work models emerged as the dominant norm, with nearly 85% of organizations implementing some degree of remote or hybrid structures (Singh, 2024). Attention also increased toward digital transformation, including the integration of cloud computing and AI-driven tools to enhance remote work capabilities. Nevertheless, several challenges remained. Productivity: Work done at full 100% remote was about 10% lower than work at the office, mostly due to the lack of communication induced by the new environment of work, the lack of mentorship and the weaker organizational culture (Barrero, 2023). Output per hour dropped 8-19% in some cases, while coordination costs were found to be a key block to gamification Work–life and

employee well-being issues also came to the forefront, including blurred work and home boundaries, increased mental health issues and imbalanced domestic duties, mainly effecting women (Rustan, 2024). Gender inequalities were intensified, impacting women negatively, with or without childcare responsibilities. Methodology: The majority of the literature itself was mainly qualitative with low sample sizes, not allowing for broader generalizability (Rustan, 2024), and there could be biases in the survey which respondents could mix up their productivity perceptions with personal preferences for remote work. With an eye to the future, tech adoption was key and needed investment in digital infrastructure, remote collaboration tools and cyber security solutions would be critical. Companies struggled to create culture and engagement in hybrid environments, where fewer informal interactions led to less innovation and less internal networking. There was also a need for equitable policy formulation to address mental health issues and gender gaps especially in underprivileged pockets such as tier -2 and 3 cities. Future studies should prioritise large-scale quantitative studies to provide a better insight into the long-term consequences of teleworking on different sectors, types of employment and demographic groups.

## STATEMENT OF THE PROBLEM

The swift and broad embrace of work from home (WFH) spurred by the COVID-19 pandemic has greatly disturbed traditional work arrangements and reshaped practices within organizations, employees' well-being and productivity dynamics (Barrero, 2023). While the literature on remote work has grown significantly, there remains a critical gap in comprehensively synthesizing its historical evolution, current applications and future implications. Existing studies often focus on isolated aspects such as technology, well-being, or management without offering a holistic, longitudinal perspective. Furthermore, unresolved challenges persist around productivity trade-offs, work-life balance, gender and regional equity and organizational adaptability in hybrid settings (Rustan, 2024). This study addresses these gaps by providing an integrated systematic literature review, aimed at informing researchers, organizations and policymakers about the long-term effects of WFH and guiding evidence-based strategies for sustainable and resilient work environments in an increasingly digital era.

## OBJECTIVES OF THE STUDY

1. To explore the historical evolution of work from home through literature analysis.
2. To examine how technology and organizational practices shaped WFH trends.
3. To interpret employee outcomes in remote and hybrid work contexts.
4. To identify emerging themes and challenges related to the future of WFH.

5. To analyse the metrics and assessment tools used to evaluate WFH impact.

**LITERATURE REVIEW**

Given the evolving nature of work from home (WFH) and its increasing relevance across organizational, technological and social domains, it is essential to contextualize this phenomenon within existing scholarly discourse. A comprehensive review of the literature provides critical insights into how WFH has been conceptualized, implemented and evaluated over time. The following section synthesizes key theoretical frameworks, empirical findings and emerging perspectives that form the foundation for this study, highlighting gaps and opportunities that justify the present systematic exploration.

**Objective 1: To explore the historical evolution of work from home through literature analysis.**

**What were the key themes and drivers of work from home in pre-pandemic scholarly literature?**

Post-2020 academic literature analysing the pre-pandemic period (2015–2019) consistently identified key drivers behind the early adoption of work from home (WFH). One of the primary enablers was the advancement of digital infrastructure, including communication platforms, cloud technologies and secure remote access systems, which facilitated the feasibility of remote work in knowledge-intensive industries (Zhang, 2021). Organizational factors also played a crucial role, with leadership support, flexible work policies and trust between managers and employees being central to the successful implementation of WFH practices (Liu, 2022). Drawing on job design and motivation theories, researchers emphasized autonomy, task significance and feedback as essential elements that contributed to employee engagement and job satisfaction in remote environments. Studies reported that WFH offered benefits such as improved work–life balance, reduced commuting stress and increased job flexibility, which further encouraged its adoption. Financial considerations, including cost savings on office space and operational expenses, were also recognized as motivating factors for both organizations and employees (Coate, 2021). Collectively, these themes established the conceptual groundwork that informed the accelerated shift to remote work during the COVID-19 pandemic and beyond.

**How has the academic discourse on work from home evolved over different time periods?**

Scholarly discourse on work-from-home (WFH) exhibited a pronounced evolution across successive periods, as evidenced by systematic literature trends. In the early 2000s and 2010s, the discourse predominantly focused on feasibility studies and theoretical frameworks, exploring technological readiness, organizational policies and job design in virtual settings (Barrero, 2023). By 2021–2022,

reviews indicated a widening of scope to include psychosocial dimensions such as well-being, work-life integration and management strategies for hybrid teams (Ngwira, 2024). More recent works (2023–2025) have introduced advanced analytical perspectives, employing topic modelling and thematic text analysis to chart how WFH discourse has progressively shifted from technology-centric and organizational considerations to integrative frameworks encompassing equity, sustainability and digital transformation (Sennott, 2025). This progression underscores an academic shift from early assessments of feasibility and infrastructure, to nuanced explorations of human-centered impacts and finally to future-oriented metrics and measurement frameworks demonstrating a maturing field responsive to evolving workplace realities and digital innovation.

**Objective 2: To examine how technology and organizational practices shaped WFH trends.**

**How have advancements in technology influenced the adoption and implementation of WFH?**

Advancements in digital technology have played a transformative role in enabling the widespread adoption and implementation of work-from-home (WFH) practices. Recent empirical studies indicated a strong relationship between digital capability and productivity gains across multiple industries, with advanced communication tools, cloud platforms and cyber security systems serving as key enablers (Fernald, 2024). Research in the information technology sector revealed that although remote work fostered individual productivity, it also led to more siloed collaboration patterns, highlighting the double-edged nature of digital collaboration tools (Saz-Orozco, 2021). Technology Acceptance Model (TAM)-based studies found that perceived usefulness and ease of use significantly influenced employees' continued reliance on remote collaboration platforms post-pandemic (Salsabila, 2025). In addition, hybrid work environments increasingly leveraged artificial intelligence, virtual meeting tools and real-time project management software to enhance coordination and responsiveness. Cross-cultural investigations further linked remote technology adoption to increased innovation and participatory engagement in organizations, particularly where flatter hierarchies allowed for distributed decision-making (Guan, 2025). Collectively, these findings affirm that robust technological infrastructures were not only facilitators of remote work but also strategic assets for long-term organizational adaptability.

**What organizational strategies and practices have been commonly associated with successful remote work transitions?**

Recent scholarship has emphasized that successful remote work transitions rely heavily on proactive organizational strategies and adaptive leadership practices. Key amongst these is the creation of a remote-

supportive culture, which is doing so by having policies that openly advocate for "flexibility, independence and autonomy" with the explicit aim of encouraging greater employee self-regulation and accountability (Chong, Supporting remote workers: The role of workplace flexibility and culture., 2022). Research has suggested that managerial support, such as frequent communication, clear standards and emotional support, are key to both maintaining performance and morale in virtual work (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective., 2021). Those that invested in training in virtual collaboration, structured practices for feedback and building psychological safety, were more likely to be able to maintain levels of employee engagement and productivity (Larson, A guide to managing your (newly) remote workers., 2021). Additionally, the conclusion can be drawn based on the TOE model that readiness of organisational infrastructure, managerial mind-set and resource allocation is vital for implementing remote work successfully (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective. , 2021). Furthermore, team-level strategies, such as clear goals, role definitions and coordination of synchronous/asynchronous tasks, manifested as facilitators of effective remote team working (Choudhury, 2021). Taken together, these strategic moves emphasize the need for deliberate planning and flexible leadership when it comes to transitioning to successful remote work models.

**Objective 3: To interpret employee outcomes in remote and hybrid work contexts.**

**What employee-related outcomes (e.g., productivity, satisfaction and well-being) are most frequently discussed in WFH literature?**

Recent literature on work from home (WFH) has consistently emphasized a range of employee-related outcomes, with productivity, job satisfaction, and well-being emerging as the most frequently studied constructs. Productivity outcomes have received considerable attention, with findings suggesting that while remote work can enhance individual focus and task efficiency, it may also lead to decreased output when collaboration and coordination challenges are present (Choudhury, 2021). Job satisfaction has been positively associated with increased autonomy, flexible scheduling and reduced commuting stress, although some studies note diminished satisfaction due to social isolation and lack of in-person interaction (Feng, 2020). Employee well-being, particularly mental health, has been a central concern in post-pandemic studies, where researchers observed increased stress, work-life conflict and digital fatigue despite the convenience of remote setups (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective. , 2021). In addition, emotional exhaustion and feelings of detachment were more pronounced in fully remote environments lacking sufficient managerial support

or team cohesion (Larson, A guide to managing your (newly) remote workers. , 2021). These findings suggest that while WFH can offer significant personal and professional benefits, its effectiveness is contingent upon organizational culture, technological support and employee adaptability.

**How do remote and hybrid work environments affect employee engagement and work-life balance, as reflected in academic studies?**

Academic studies have increasingly explored the effects of remote and hybrid work environments on employee engagement and work-life balance, revealing both enabling and constraining factors Research suggests that home working may be related to higher, engagement because employees are working autonomously, have agency over their own time, are no longer distracted by the daily office routine and that time spent on their core tasks is relatively longer (Chong, Supporting remote workers: The role of workplace flexibility and culture. , 2022). Nonetheless, those same conditions that favour the advantages of working in a remote mode may as well support the emotional distance, the low team cohesion and the challenge to maintain the shared goals of an organization (Larson, A guide to managing your (newly) remote workers. , 2021), especially in the case of the total remote work, without the opportunity of social encounters and an active communication. Hybrid work models, in contrast may be associate with more engagement as they represent the chance of finding a mix of flexibility and physically working and meeting, kept social relations while sorting private concerns (Ipsen, 2021). In terms of work-life balance, remote or hybrid work gave employees the possibility to reduce their travel time, as well as better balance personal and professional life (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective. , 2021). Research also highlighted blurred boundaries between work and family life, accompanied by higher work intensity, working hours and stress for caregivers and women (Allen, 2021). In summary, the benefits flexible work offers for engagement and well-being, such as it is, is rendered more or less, depending on the extent to which employees have the managerial support, workload design and resources that enable them to access quality psychological and technical resources to do their best work.

**Objective 4: To identify emerging themes and challenges related to the future of WFH.**

**What future trends and concerns are anticipated in the evolving discourse on work from home?**

As the discourse on work from home (WFH) evolves beyond the immediate impacts of the COVID-19 pandemic, scholars have turned their attention to emerging trends and long-term concerns that are likely to shape the future of remote and hybrid work. Hybrid way of work is trending as one of these

remarkable trends, blending remote and onsite work to deliver flexible work, employee wellbeing and operational excellence. Simultaneously, there is also growing interest in advances in technology, such AI, VR and Real-Time collaboration platforms, for enabling distributed teams and enhancing remote communication (Sutherland, 2021). This trend will also give rise to heightened employee surveillance and digital supervision, with attendant ethical concerns about privacy, autonomy and trust. (Vyas, 2021). Second, equity and access issues are creeping in, not least in relation to an uneven spread of remote opportunities by industry, job type, or region (Kramer, The potential impact of the COVID-19 pandemic on occupational status, work from home, and occupational mobility. , 2021). Digital exhaustion, well-being sustainability and longer-term "cultural degradation" of organizations is also being discussed as integral issues that are pushing academic scholarship to rethink approaches to leadership, inclusion and engagement among employees in virtual settings (Raghuram, 2022). Together, this future of work and accompanying concerns relate to a shift towards more thoughtful, human-centric and technology-empowered remote work.

**Which factors are projected to shape the sustainability and scalability of WFH practices?**

Recent research has emphasized that the long-term sustainability and scalability of work-from-home (WFH) practices will be determined by an interplay of technological, organizational and human-centric factors. Key enablers are the sustained investment in digital infrastructure (e.g., secure cloud systems, real-time collaboration tools and AI-augmented support systems) for supporting remote productivity and resilience at scale (Sutherland, 2021). Equally significant is organisational flexibility and agile work environment, in which supportive leadership, trust-based management and flexibility in work policies support employees to work in a remote setting for a longer period (Raghuram, 2022). Additionally, employee well-being has been highlighted as an important factor an organization's ability to support employees' mental health, connectedness and a flexible work pace is positively related to continuance of effective remote work (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective., 2021). Moreover, in addition to issues of inclusion and access equity that will still need to be addressed, scholars suggest that, to the extent that WFH is to be made sustainable, it must be created to be capable of serving the full range of roles, industries and socioeconomic backgrounds if we are to avoid the reproduction of workforce inequalities (Kramer, The potential impact of the COVID-19 pandemic on occupational status, work from home, and occupational mobility. , 2021). Finally, the embedding of metrics and performance measurement tools is important to the scaling of WFH, in the sense that transparent evaluation mechanisms will foster accountability in decentralized environments (Baert, 2022). Collectively, these mix of enablers and constraints describe what organizations need to

address to make WFH an easy, efficient way of working, rather than the crisis-response mode of working that can work on a small scale but isn't scalable and can't be sustained.

**Objective 5: To analyse the metrics and assessment tools used to evaluate WFH impact.**

**What indicators and measurement frameworks are commonly used to assess the impact of WFH on productivity and performance?**

The assessment of productivity and performance in work-from-home (WFH) settings has increasingly relied on both quantitative and qualitative measurement frameworks. Output based measures like completion rates, number of hours worked, deliverables submitted on time, represent the more widely applied measures as they offer hard and fast performance criteria against which personal productivity can be measured (Choudhury, 2021). Moreover, self-reported productivity scales, which are frequently taken from standardized psychological questionnaires, are commonly applied to  measure subjective perception of performance outcomes and efficiency in virtual environments (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective. , 2021). In organization and management research, established models such as the Balanced Scorecard have already been extended with dimensions designed for the remote (working) context (e.g., digital collaboration, virtual engagement and quality of remote customer service) (Larson, A guide to managing your (newly) remote workers., 2021). In addition, the Technology–Organization–Environment (TOE) model has been used to evaluate performance in relation to the use of technology, flexibility of organizations and preparedness of the  environment for long-term remote working (Liu, 2022). Work-design frameworks, particularly based in Job Demands–Resources (JD-R) theory, also challenge our assessment of productivity by considering the interface of digital job demands (e.g. 24/7 connectivity) with available supports (e.g. autonomy, feedback) (Bakker, 2017). Altogether, the review underlines a multidimensional perspective of WFH performance measurement that infers behavioural variables, psychological constructs and  organizational arrangements to obtain a fair assessment of performance.

**How do existing studies evaluate the effectiveness of remote and hybrid work arrangements?**

The evaluation of remote and hybrid work arrangements in academic literature typically centers on three core dimensions: employee outcomes, organizational performance and technological infrastructure. Studies often assess effectiveness using mixed-methods approaches, combining quantitative performance indicators (e.g., productivity metrics, retention rates) with qualitative data such as employee satisfaction, engagement, and perceived work-life balance (Choudhury, 2021), (Wang, Achieving effective remote

working during the COVID-19 pandemic: A work design perspective. , 2021). Remote work has been found to improve individual performance when job autonomy and task clarity are present, but its effectiveness may decline without sufficient managerial support or team coordination (Larson, A guide to managing your (newly) remote workers., 2021). Hybrid work models are increasingly viewed as optimal due to their ability to balance flexibility and face-to-face collaboration, resulting in improved innovation, knowledge sharing and team cohesion (Gajendran, 2022). Additionally, the use of frameworks such as the Job Demands–Resources (JD-R) model and the Technology–Organization–Environment (TOE) model enables a multi-layered evaluation of effectiveness by linking personal, technological and structural variables to work outcomes (Bakker, 2017). Overall, existing studies emphasize that the effectiveness of remote and hybrid work is context-dependent, shaped by job design, leadership style, digital readiness and employee adaptability.

## GAP OF THE STUDY

While the literature on work from home (WFH) has grown rapidly since the onset of the COVID-19 pandemic, most existing studies tend to focus on short-term adaptations and immediate outcomes, offering limited insights into the historical evolution and longitudinal development of remote work practices (Choudhury, 2021), (Larson, A guide to managing your (newly) remote workers. , 2021). Pre-pandemic models, early adoption patterns and the gradual shift in work paradigms have received relatively less attention in systematic reviews. Furthermore, although technology is often cited as a critical enabler of remote work, few studies examine how it interacts with organizational structures and leadership strategies to support sustained WFH adoption (Sutherland, 2021). The intersection of employee well-being, demographic diversity and hybrid models also remains underexplored, with most research offering generalized insights rather than examining differentiated impacts across age, gender, and socioeconomic contexts (Kramer, The potential impact of the COVID-19 pandemic on occupational status, work from home, and occupational mobility. , 2021), (Wang, Achieving effective remote working during the COVID-19 pandemic: A work design perspective., 2021) In addition, there is a lack of consensus on how to evaluate WFH effectiveness, as existing measurement frameworks are fragmented and discipline-specific, often neglecting holistic assessments that incorporate productivity, satisfaction, innovation, and organizational cohesion (Baert, 2022), (Liu, 2022). These gaps point to the need for a comprehensive systematic review that not only maps the thematic trajectory of WFH research across time but also evaluates how technology, leadership, employee outcomes and measurement practices shape the sustainability of remote work models.

## RESEARCH METHODOLOGY

### Research Design

This study adopted a qualitative, exploratory research design aimed at tracing the conceptual and thematic evolution of work-from-home (WFH) practices over time. The objective was to synthesize and analyse scholarly literature using systematic review techniques, with an emphasis on uncovering patterns, trends and future directions in WFH discourse.

### Research Approach

The research followed an inductive approach, appropriate for qualitative inquiry, wherein patterns and themes were derived from extensive analysis of academic literature rather than hypothesis-driven testing. This approach facilitated the discovery of latent structures and thematic trajectories within the literature corpus.

### Research Philosophy

The philosophical underpinning of this research aligned with interpretivism, which emphasizes subjective meaning-making and contextual understanding. Given the evolving and multifaceted nature of WFH, the interpretivist paradigm supported the nuanced interpretation of conceptual shifts, organizational dynamics and employee outcomes over time.

### Data Collection Method

Data for this study were collected through a systematic literature review (SLR) from peer-reviewed journal databases, focusing on publications related to WFH from 2014 to 2025. Inclusion criteria prioritized articles that addressed WFH practices, technologies, policies, employee outcomes and future trends, ensuring a comprehensive temporal and thematic span.

### Analytical Techniques

Multiple qualitative text analysis methods were employed to extract, organize and interpret the literature:

- **Latent Dirichlet Allocation (LDA)** was used for topic modelling, which identified major thematic clusters such as organizational frameworks, autonomy, digital infrastructure, and employee well-being across different time periods.

- **Thematic Mapping** enabled visualization of key concepts and their interrelationships, supporting the understanding of how foundational and emergent themes evolved from past to future.

- **Correspondence Analysis (CA)** facilitated the identification of co-occurrence patterns and semantic shifts by clustering terms across temporal dimensions, highlighting the progression from reactive pandemic-driven themes to proactive strategic planning.

- **Principal Component Analysis (PCA)** provided quantitative insights into term variance and dimensional relationships, helping isolate dominant and emergent variables related to WFH metrics, leadership and hybrid models.

These tools complemented one another in constructing a multidimensional and chronological narrative of WFH's transformation from a crisis response to a permanent, strategic model of work.

## DISCUSSION

## TOPIC MODELLING USING LDA:



Figure 1: Topic Modelling (Source: Author compilation)

The topic modelling analysis offers a structured view of how research on work from home (WFH) has evolved over time. Initial studies emphasized organizational frameworks, employee autonomy and the development of remote work models. Alongside this, early literature explored employee experiences, including satisfaction, trust and the challenges of detachment and isolation. As remote work expanded,

scholars focused on the enabling role of technology, engagement strategies and team collaboration. Productivity and job-related outcomes such as the elimination of commuting, use of digital tools and personalized work routines also emerged as central themes. Literature from 2021 to 2023 reflected pandemic-driven adaptations, highlighting the importance of communication, emotional well-being and hybrid work structures. Recent studies began projecting future trends, particularly toward 2025, emphasizing integration, efficiency and sustainability in hybrid environments.

This thematic evolution highlights a clear trajectory: from foundational concerns around policy and infrastructure, through pandemic-related operational shifts, to future-oriented strategies for optimizing remote work. Cross-cutting themes such as digital infrastructure, employee well-being, performance measurement and organizational cohesion remain central across all time periods. Overall, the analysis reveals a multidimensional research landscape that traces the WFH journey from conceptualization and adoption to future innovation and strategic refinement.
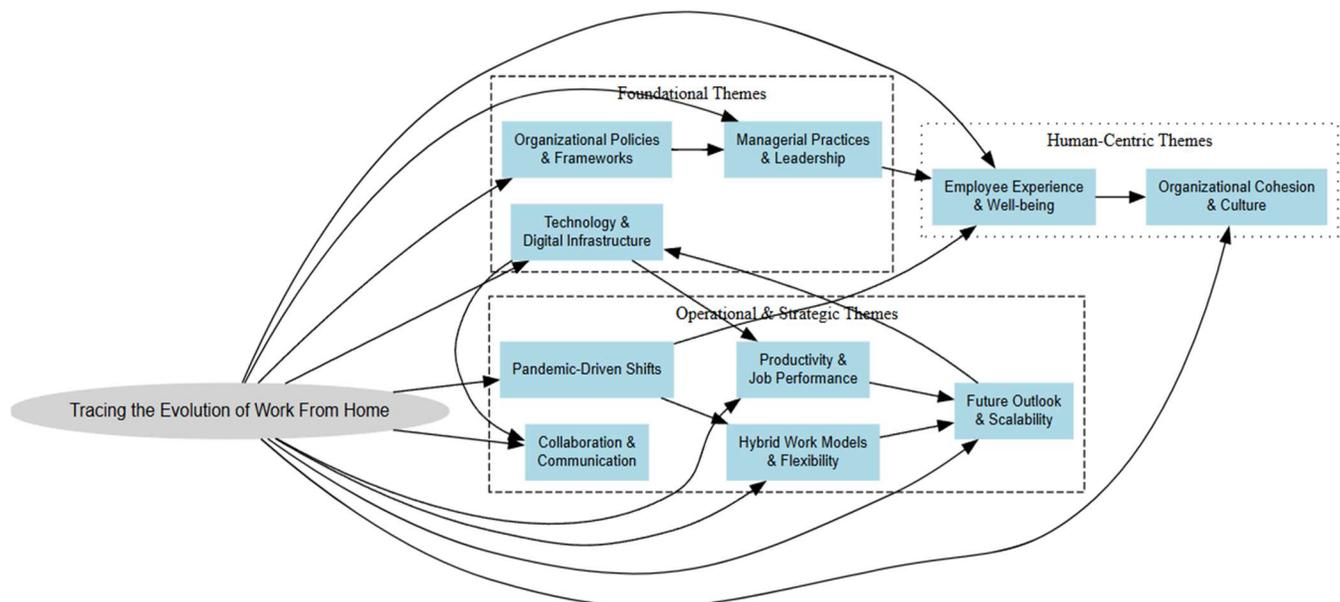
**Tracing The Evolution of Work from Home**



Figure 2: Tracing The Evolution of Work from Home (Source: Author compilation)

The thematic map presents a holistic framework for understanding the evolution of work-from-home (WFH) practices across past, present and future trajectories. Foundational themes such as organizational policies, managerial practices and digital infrastructure enable effective remote work by establishing structure, trust and technological readiness. The COVID-19 pandemic acted as a catalyst, accelerating WFH adoption and revealing both challenges and adaptive capacities. In response, hybrid work models

have emerged as a sustainable solution, balancing flexibility with collaboration. Future scalability depends on organizational adaptability, evolving employee expectations, and robust technological integration. Key outcomes such as productivity, job performance, and employee well-being require continuous attention, as remote work can both enhance autonomy and introduce risks like burnout and isolation. Maintaining organizational culture and cohesion in dispersed teams necessitates intentional leadership and inclusive communication. Overall, the evolution of WFH is shaped by the alignment of strategic planning, supportive systems and human-centric practices—positioning it not as a temporary response, but as a long-term shift in modern work design.
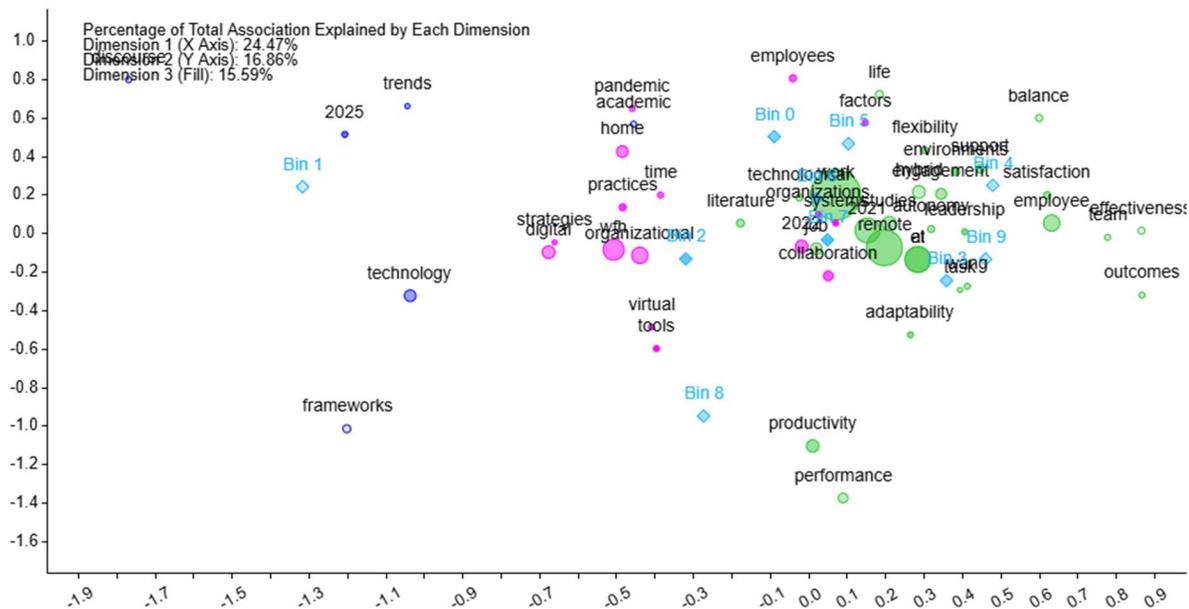
**Correspondence analysis**



Figure 3: Correspondence analysis (Source: Author compilation)

The correspondence analysis plot offers a compelling visual and conceptual representation of evolving discourse on work from home (WFH), effectively supporting the study's objective of tracing its past, present and future trajectories. Dimension 1 (24.47%) and Dimension 2 (16.66%) account for the majority of variance, revealing key thematic clusters that map chronologically and conceptually. On the left, terms such as "pandemic," "strategies," "digital," and "organizational" cluster together, emphasizing the foundational and reactive nature of early WFH adoption during the COVID-19 crisis, driven by virtual tools and operational shifts. This cluster, associated with Bin 2, reflects the pandemic's catalytic role in initiating widespread remote work. In contrast, the central-right region is populated by terms such as "flexibility," "engagement," "satisfaction," and "productivity," which indicate the present phase of

WFH focused on optimization, employee experience and performance refinement represented by Bins 0 and 5. A third cluster positioned toward the far left and lower quadrant, marked by terms like "2025," "frameworks," and "trends," denotes a forward-looking orientation, aligned with Bin 1, suggesting an emerging scholarly focus on future models of remote work supported by evolving technology and strategic integration. Additional terms such as "employees," "life," and "factors" occupy central positions, reflecting their continued relevance across all stages. The presence of terms like "literature review" and "system" supports the systematic methodology applied in the analysis. Overall, the distribution of terms suggests a clear temporal progression: from early technological and structural adaptation, through present-day efforts to enhance engagement and effectiveness, to future strategies for scalable and sustainable remote work. Key drivers such as leadership, collaboration, digital infrastructure and organizational frameworks are consistently emphasized, while enduring concerns such as well-being, productivity and flexibility remain central across all dimensions. This thematic and spatial clustering validates the evolving scholarly landscape of WFH and reinforces the rationale for conducting a systematic review to capture its transformation from emergency response to strategic institutionalization.
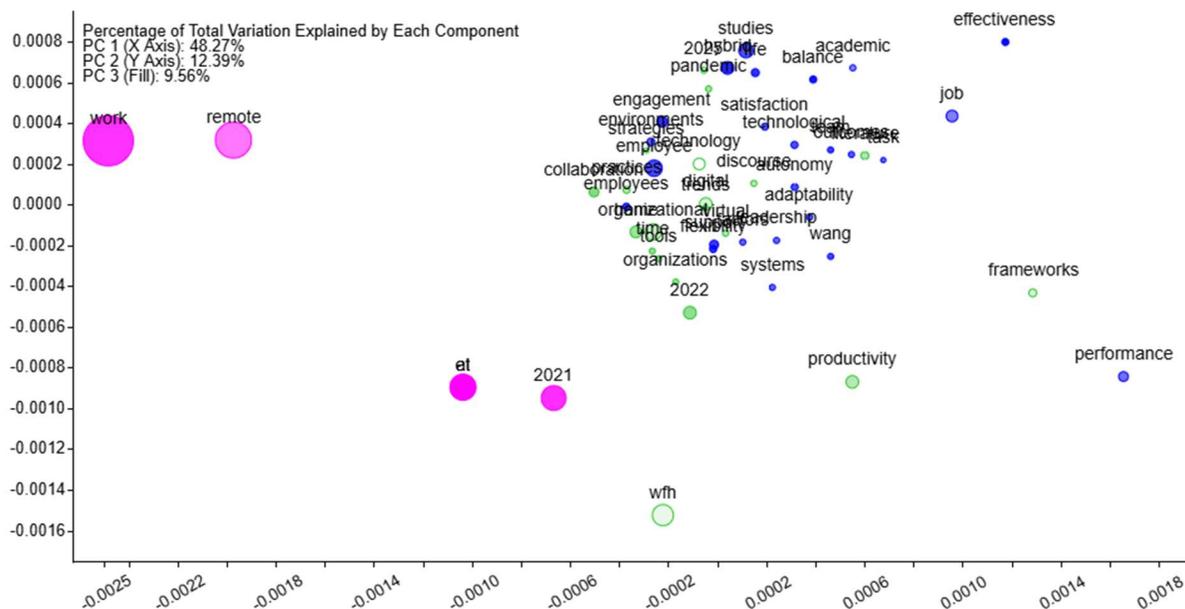
**Principle Component Analysis**



Figure 4: Principle Component Analysis (Source: Author compilation)

The principal component analysis (PCA) plot offers a compelling visual representation of the thematic evolution within work-from-home (WFH) research, with the first principal component (PC1) explaining 48.27% of the total variance and serving as the dominant dimension that captures the core transition in

WFH discourse. PC2, accounting for 12.39% of the variance, highlights auxiliary but orthogonal thematic dimensions, while PC3 contributes 9.56%, cumulatively enabling the first two axes to encapsulate over 60% of the overall variability in the dataset. The left quadrant, marked by high negative PC1 values and magenta-colored terms such as "work," "remote," and "2021," reflects the foundational stage of WFH characterized by its abrupt pandemic-driven implementation and operationalization during the early 2020s. In contrast, the upper-right quadrant, rich with blue-coded terms like "effectiveness," "engagement," "balance," "satisfaction," and "leadership," represents the present phase, where the academic focus has shifted toward evaluating the quality, outcomes, and managerial dynamics of remote work. This cluster also includes terms such as "studies," "academic," and "pandemic," underscoring the centrality of empirical inquiry and the pandemic's catalytic role. Further into the lower-right quadrant, the green-colored cluster composed of "productivity," "performance," "frameworks," "WFH," and "2022" denotes a transition into more mature research themes that emphasize efficiency, formal evaluation and the institutionalization of WFH frameworks. These positional groupings indicate a clear evolutionary trajectory: from early-stage adoption and logistical challenges, through complex managerial and human-centric present-day concerns, to a more structured and performance-driven outlook on the future of remote work. The horizontal PC1 axis thus maps the temporal and conceptual progression of WFH scholarship, while the vertical PC2 axis differentiates contemporary research emphases, capturing the multifaceted nature of remote work as both a technical and human-centered phenomenon. Collectively, the PCA plot substantiates the relevance of your research focus, offering a robust empirical basis for tracing the conceptual evolution of WFH in academic literature.

The Principal Component Analysis (PCA) effectively captured the temporal and conceptual evolution of work-from-home (WFH) research, offering a clear trajectory from the pandemic-induced adaptation phase to the more recent scholarly focus on employee well-being, leadership, productivity and hybrid work models. The first principal component (PC1), which explained 48.27% of the total variance, was the main axis that described the central movement of WFH discourse across the different time points. This was in line with one of the main aim of the study to trace the historical background and future potential for WFH. Unlike latent topic modelling and simple thematic maps, PCA helped us to explore deeper insights of WFH (e.g., dominant and less dominant topics, and associations and non-associations between different dimensions of WFH (e.g., productivity and emotions wellbeing)). It allowed to account for more nuanced relationships among new and existing constructs, between 2025 frameworks and 2021 uptake of remote work, and thereby, closing a time and thematic gap in the literature.

PCA also supported the guidance and strategic assessment of metrics and assessment tools that contributes to the activity of the fifth research objective. It was possible to determine from the component loadings analysis, which variables contributed most to each principal component, and provide a list of contributing factors for the assessment of WFH effectiveness. Such attention to analysis should have given them a basis for developing prospective models and strong ground for comparativist and predictive extensions of the research. For example, PCA results can be involved for the clustering of a similar study (based on their theme) 10 through the clustering method as well as to add as a predictor to predict an outcome (e.g., employee satisfaction in hybrid environment) using regression model. Furthermore, providing an empirical grounding and visual explanation of the PCA plot might have strengthened the PCA plot's utility for academic publication and policy-making purposes was likely higher when the PCA plot was situated together with the systematic review. Place a commentary/what this study adds? There are significant benefits of the use of PCA plot in academic publication- the application and interpretation of the PCA plot can be enhanced when utilised as a triangulation step with systematic review. Potential extensions of this research were separating foundational versus mature themes (for PC1), examining technological and organizational factors (from the PC loadings), interpreting the employee experience-related dimensions, discovering new WFH challenges and improving productivity and performance measurement items.

The first four research questions were addressed by topic modelling (LDA). It identified temporally distinct topic clusters, ranging from early themes such as policy, autonomy, and infrastructure, to more recent emphases on pandemic adaptation and hybrid work models effectively supporting the tracing of WFH's conceptual evolution. Recurring themes related to "technology," "digital tools," and "organizational frameworks" reinforced the influence of institutional and technological structures on WFH adoption, aligning with the objective focused on organizational practices. Employee-related terms like "satisfaction," "trust," and "well-being" reflected the human experience in remote settings, offering rich insights into the third objective. Furthermore, the emergence of forward-looking terms such as "integration," "hybrid," and "sustainability" highlighted evolving challenges and innovation. While LDA did not directly extract assessment tools, it indirectly contributed to the fifth objective by surfacing high-frequency indicators like "productivity" and "engagement." Complementing LDA, the thematic map provided a visual progression from foundational managerial practices to contemporary hybrid models. It emphasized digital infrastructure and employee-centric themes such as well-being and work-life balance, aligning well with the first four objectives. Although less explicit in identifying measurement tools, it did highlight performance outcomes and organizational adaptability as evolving priorities.

Correspondence analysis further substantiated the evolution of WFH discourse by clustering related terms across dimensions, revealing a chronological progression from early pandemic-related themes to more complex constructs involving employee engagement and organizational performance. It successfully mapped central themes like "satisfaction," "engagement," and "well-being," demonstrating their enduring relevance and grouped future-oriented terms such as "2025," "frameworks," and "trends" into distinct clusters, indicating emerging research concerns. Though less direct in evaluating specific metrics, it supported their relevance by showing the continued prominence of terms like "productivity" and "effectiveness." Principal Component Analysis (PCA) provided the most robust alignment across all five objectives. It clearly visualized thematic transitions over time and quantified variable importance, with terms like "digital infrastructure," "leadership," "balance," and "performance" showing high loadings. Its capacity to isolate dominant variables made it particularly suited to Objective 5, enabling the identification and validation of WFH assessment indicators. Collectively, these analytical tools offered complementary strengths LDA and thematic mapping were most effective in exploring thematic patterns and conceptual relationships, correspondence analysis excelled in tracing term associations and temporal shifts and PCA offered quantitative depth and foresight for evaluating metrics and informing future research frameworks.

Correspondence Analysis (CA) played a pivotal role in visualizing the conceptual and temporal evolution of work-from-home (WFH) literature by mapping key terms based on their co-occurrence patterns across time-defined clusters. Unlike topic modelling, which categorized latent themes, CA revealed how specific concepts such as "pandemic," "digital," and "collaboration" were strongly associated with early WFH discourse, while terms like "engagement," "flexibility," "leadership," and "frameworks" shifted into prominence in more recent research. The spatial arrangement of terms across dimensions allowed for a nuanced understanding of how thematic priorities transitioned from initial adoption challenges to current concerns around employee well-being, productivity and toward future-oriented frameworks. This temporal clustering not only validated the chronological trajectory outlined in the systematic review but also uncovered enduring and emerging focal points, making CA an essential method for tracing semantic shifts in academic discourse over time.

## FUTURE RESEARCH DIRECTION

Correspondence Analysis (CA) provided a distinct advantage over other methods by visually mapping the temporal and semantic progression of work-from-home (WFH) discourse across different time periods. Unlike Latent Dirichlet Allocation (LDA), which identified probabilistic topic clusters without

explicit temporal sequencing, CA enabled a chronological interpretation by showing how terms like "pandemic," "collaboration," and "flexibility" shifted in relevance over time. In contrast to thematic mapping, which structured relationships between pre-identified themes, CA offered a data-driven layout that revealed natural groupings based on co-occurrence patterns, thereby uncovering emergent connections such as the rise of "hybrid models" and "employee well-being." Compared to Principal Component Analysis (PCA), which quantified variance among components and helped identify influential terms for measurement and forecasting, CA was more effective in portraying how conceptual clusters evolved and interacted over different publication phases. Collectively, CA complemented these methods by emphasizing the evolutionary trajectory of key concepts, offering valuable insight into the changing discourse landscape of WFH research.

## CONCLUSION

This study systematically examined the evolution of work-from-home (WFH) practices through a qualitative lens, guided by five core objectives. To examine scholarly discourse on the concept, revealing how WFH has evolved from a reactive organizational response to an institutionally embedded model of work. The results traced a defined thematic and temporal path from topics anchored in the foundations (e.g., policy, infrastructure, readiness planning), to pandemic-driven adaptations (e.g., flexibility, engagement), to future-oriented ideas (e.g., sustainability, hybrid models, digital integration). These findings provide a multifaceted picture of the complexities that pervade WFH.

### Managerial Implications

For practitioners specifically and organisations in general, the implications are that the demand for agile managerial skills and employee-centric IR has never been more needed or relevant than now, as workers are increasingly forced to work in hybrid and remote ways. The move from to straightforward infrastructure issues to thornier issues like engagement, trust, well-being and leadership indicates managers need to move past transactional management to transformational and empathetic styles of leadership. The study highlights the need for explicit regulation, creating autonomy and using digital collaboration software wisely. The need of the hour is to include some sort of performance evaluation system that fosters flexibility, while ensuring accountability this will be the key in maintaining the momentum and keeping employee morale up in the long run!

### Research Implications

In terms of academia, the present work adds to the increasing literature on WFH by providing a systematic examination of the evolution of WFH with state-of-the-art analysis methods. The thematic results confirm the importance of the main constructs of digital transformation, employee well-being and leadership adaptability. In addition, it integrates several research streams HRM, OB, digital workplace studies and contributes a unifying perspective on the development of the WFH literature. It encourages future research to expand upon this work further using longitudinal data, sector-specific analysis, or formal quantitative models to test specific causal relationships proposed by this synthesized review.

**Societal Implications**

The evolution of WFH has broader societal ramifications beyond individual organizations. As remote work becomes a normalized part of professional life, its influence on urban infrastructure, environmental sustainability, mental health and work-life boundaries cannot be overstated. The reduction in commuting, the redesign of urban office spaces and the shift in family dynamics are evidence of WFH's deep social imprint. This study draws attention to the importance of inclusive digital policies and the need to address digital inequality, ensuring that remote work benefits are equitably distributed across various socio-economic groups and geographies.

**FUTURE DIRECTIONS**

While this review offers a comprehensive mapping of past and present WFH discourse, it also sets the stage for future inquiries. Emerging themes such as AI-assisted remote work, ethical surveillance, virtual reality collaboration and psychological resilience in distributed teams present fertile ground for future research. Furthermore, greater focus on the effectiveness of metrics and assessment tools especially in hybrid contexts will enhance our understanding of what constitutes sustainable remote work. As the workplace continues to evolve, longitudinal and cross-cultural studies can enrich the dialogue on WFH's long-term implications and help formulate adaptive, forward-thinking organizational strategies.

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