

The Role of Digital Technology in Sustaining Team Effectiveness in Hybrid Organizations

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ABSTRACT

Hybrid work models that combine office and remote activities have become a strategic choice for many organizations in the face of modern work dynamics. This research aims to explore the role of digital technology in supporting team effectiveness in a hybrid work environment. The qualitative approach is used through in-depth interviews with employees from various sectors who have worked in a hybrid manner for at least the last six months. The results show that digital technologies, such as online communication and collaboration platforms, play an important role in maintaining smooth communication, strengthening coordination, and increasing team productivity. In addition, technology also contributes to team motivation and engagement, as long as its use is accompanied by adequate digital literacy and adaptive leadership. This study emphasizes the importance of the right technology implementation strategy in order to be able to answer the challenges and maximize the potential of hybrid work systems in a sustainable manner.

Keywords: Hybrid Organization, Team Effectiveness, Digital Technology, Remote Work, Online Collaboration

1. INTRODUCTION

The shift from conventional to hybrid work has been a significant transformation in today's world of work. The hybrid work model combines remote work activities with a physical presence in the office, providing a higher level of flexibility for workers (Claudi & Hadiani, 2024). This shift is mainly made possible by advances in digital technology that drive effective communication and collaboration between team members spread across multiple geographic locations (Lane et al., 2023). Digital collaboration tools are now an integral part of supporting that transition process, allowing teams to stay connected and productive despite working from different locations (Teevan, 2022).

However, the implementation of the hybrid work system is not without obstacles. One of the main challenges organizations face is maintaining optimal team collaboration. In a hybrid context, communication and coordination barriers often arise due to the separation of physical locations (Nugroho & Hermawan, 2022). Additionally, efforts to build and maintain a solid organizational culture become more complex when face-to-face interactions between team members are reduced. This has the potential to reduce the level of attachment and commitment to the shared vision and mission (Buła et al., 2024).

In facing these challenges, digital technology plays a very crucial role. A variety of communication and project management platforms serve as a bridge that facilitates information flow and cross-site coordination (Deschênes, 2023). This technology also creates a more inclusive and collaborative workspace, where every team member has an equal opportunity to contribute, without being limited by their physical location (Park, 2024). On the other hand, digital literacy is an important element that should not be ignored in the context of hybrid work. Employees need to master adequate technology skills in order to use digital devices effectively. This ability allows them to adapt to rapid technological changes and maximize the use of digital collaboration tools to support productivity and teamwork (Deschênes, 2023).

No less important, adaptive leadership in a hybrid work environment is also a determining factor for success. Leaders must be able to manage virtual teams efficiently, guaranteeing that every member feels valued and heard. Inclusive and communicative leadership can encourage collective awareness and strengthen synergy in achieving common goals (Nugroho & Hermawan, 2022). Overall, the implementation of hybrid work systems provides strategic opportunities for organizations to improve flexibility and performance. However, in order for these benefits to be felt to the fullest, organizations need to be able to manage the dynamics of team collaboration effectively and ensure the optimal use of digital technology to support communication and coordination processes.

This study aims to investigate the interplay between digital technology adoption and team collaboration effectiveness in hybrid work environments. The findings from this research will provide organizations with evidence-based strategies for optimizing hybrid work implementation. Practically, this study will contribute to developing frameworks for digital technology integration that enhance rather than hinder team collaboration. Theoretically, it will expand our understanding of how traditional team dynamics evolve in technology-mediated hybrid environments. For practitioners, the results will inform training programs for developing the digital competencies and leadership skills essential for thriving in the new world of work.

2. LITERATURE REVIEW

2.1. Hybrid Organization Concept

2.1.1. Definitions and Characteristics

Hybrid organizations are a work approach that combines the work system from the office and remote work, thus providing flexibility for employees to determine their location and work methods. This model provides a competitive advantage for companies in the midst of uncertain situations, as it relies on advanced information technology to bridge communication both in person and virtually (Xavier & Porwal, 2024). The main characteristics of this organization include the use of digital communication tools, the implementation of the concept of "open doors" virtually, and a scalable and efficient performance management system (Teng-Calleja et al., 2023).

2.1.2. Unique Hybrid System

Hybrid work systems offer advantages in terms of flexibility and achieving a work-life balance. Employees can reduce their daily transportation time and costs, while improving work productivity and life balance. However, this model also has its own challenges, such as the difficulty of separating time limits between work and personal life, as well as the tendency to stay connected to work even outside of working hours (Teng-Calleja et al., 2023).

2.1.3. Team Effectiveness in a Hybrid Environment

The success of a team in a hybrid organization can be assessed through several key indicators. First, communication is essential, with digital communication technology playing a central role in ensuring the smooth exchange of information among team members (Buła et al., 2024). Second, collaboration is crucial, as digital-based collaboration applications enable team members to work together effectively even when they are in different locations (Lane et al., 2023). Third, goal achievement becomes more attainable due to the flexibility offered by hybrid work systems, allowing teams to adjust their work methods to meet targets more efficiently. Fourth, consistent coordination is necessary to keep work processes synchronized and maintain team morale (Petrova & Mushynskiy, 2024). Lastly, motivation is sustained through inclusive and supportive leadership, which ensures that all team members feel heard and valued (Hincapié & Costa, 2024).

2.2. The Role of Digital Technology in Team Collaboration

Digital technology is essential in strengthening teamwork within a hybrid system. Various tools are utilized to facilitate this, including digital communication media such as email, instant messaging, and video conferencing, which simplify communication across different locations. Collaborative platforms like Slack and Microsoft Teams offer virtual spaces that support real-time exchange of ideas, document sharing, and task management (Lane et al., 2023). Moreover, the rapid advancement of Information and Communication

Technology (ICT) helps to overcome the limitations of time and location, further enhancing the effectiveness of hybrid teamwork.

Beyond merely enabling communication and collaboration, digital technology also plays a strategic role in fostering trust and emotional security among team members. The availability of reliable digital tools helps address the communication and coordination challenges that often arise in hybrid work environments, thereby creating a more cohesive and resilient team dynamic (Alves et al., 2022).

3. RESEARCH METHODS

3.1. Research Design

This research uses a descriptive qualitative approach, with the aim of describing in depth how the role of digital technology in supporting the effectiveness of teams in organizations with hybrid work systems. This approach allows for contextual exploration of respondents' experiences and perceptions.

3.2. Research Sample

The population of this study is professional employees from various sectors (private, government, digital startups) working in a hybrid system. The sample was purposively selected, i.e. individuals who are relevant and experienced in hybrid teamwork and use collaborative digital technologies (such as Zoom, Slack, MS Teams, etc.).

Sample Criteria:

- a. Hybrid work for at least the last 6 months
- b. Actively involved in the team with the support of digital technology
- c. Willing to be interviewed for 30–60 minutes online or in person
- d. The number of samples is between 8–12 people to maintain data depth and ease of analysis.

3.3. Data Collection Techniques

Data were collected through semi-structured interviews with 8–12 respondents working in a hybrid work system. Interviews were conducted online, recorded with permission, and transcribed for analysis purposes.

3.4. Data Analysis

The data was analyzed using thematic analysis, starting from transcription, coding, theme identification, to the preparation of thematic narratives that represent the pattern of respondents' interpretation related to the role of technology in the effectiveness of hybrid teams.

4. RESULTS AND DISCUSSION

This research reveals that digital technology plays a key role in supporting the effectiveness of teamwork in organizations that implement hybrid work systems. Based on the results of in-depth interviews, five main themes were found that describe how technology is used, its benefits are felt, as well as the challenges faced by employees in undergoing this work model.

4.1. Research Results

4.1.1. Technology as the Main Liaison of Communication

Digital technology has become the main bridge of communication between geographically dispersed team members. Platforms such as Zoom, Microsoft Teams, Google Meet, and Slack are used intensively to keep communication flowing, both in formal contexts such as work meetings and in informal contexts such as sharing small news between colleagues.

The interview participants stated that the existence of technology allows them to still feel "connected" to each other even though they are not in the same physical room. Communication can be done quickly and efficiently, without having to wait for a face-to-face meeting. In fact, project discussions and brainstorming processes can be carried out online with results that are no less productive than face-to-face meetings.

Nevertheless, challenges remain. Some say that in digital communication, context and expression are often not conveyed in their entirety, so they have the potential to cause misunderstandings. This demonstrates the importance of using clear language and a good communication structure in a digital work environment.

4.1.2. Ease Collaboration and Coordination Through Technology

Digital technology not only helps in communication, but it is also a key tool in managing collaboration and coordination of team work. Using various project management platforms such as Trello, Notion, Google Workspace, and Asana makes it easy to share tasks, schedule, monitor progress, and document work results.

Many teams feel that their work has become more structured and transparent. Each team member can see who's working on what, deadlines, and current progress. This provides a stronger sense of openness and collective responsibility within the team.

Cross-departmental coordination also becomes easier because all information is stored digitally and can be accessed together. The work evaluation process has also become more systematic because all activities are well documented.

4.1.3. Productivity Increases, But Work-Life Balance Becomes a Challenge

One of the main positive impacts of hybrid work supported by digital technology is increased flexibility. Many interviewees admitted that they can work more focused and calm because they can adjust the time and place of work according to personal needs. This makes them feel more productive and less burdened by rigid office work routines.

However, on the other hand, there are also challenges in the form of digital fatigue. Too many virtual meetings in a day or excessive screen exposure can lead to physical and mental exhaustion. Some respondents found it difficult to separate work time and rest time because technology allows them to stay connected, even outside of working hours.

This condition shows that although technology is able to increase productivity, its uncontrolled use can actually interfere with employee well-being. Therefore, there is a need for organizational policies and individual awareness in regulating a healthy work rhythm.

4.1.4. Digital Literacy Challenges and Information Overload

Although most workers are able to adapt to new technologies, challenges related to digital literacy are also found to be uneven. Some employees, especially from the more senior age group, take longer to master the digital platforms used by the team.

In addition, using multiple apps at the same time (such as email, chat, task management, and video meetings) can sometimes cause information to overlap or be missed. When there is no good information management system, the risk of miscommunication and data loss becomes quite high.

This situation shows that organizations need to provide digital literacy training on an ongoing basis and simplify the digital ecosystem used. System integration and the right platform selection will go a long way in improving the effectiveness of teamwork.

4.1.5. The Role of Leaders in Maintaining Hybrid Team Dynamics

Team leaders have a central role in ensuring that technology is used effectively and interpersonal relationships are maintained. In a hybrid work environment, leadership that is oriented towards empathy, open communication, and trust becomes essential.

Employees feel more motivated when their leaders provide space for discussion, pay attention to workload, and appreciate each individual's contribution. Technology can indeed bring us closer, but it's the warmth and involvement of the leader that keeps the team spirit alive.

Good leadership is also able to balance the use of technology with a humanist approach. For example, by scheduling no-meeting hours, providing personal emotional support, or holding regular team reflection and appreciation sessions.

Overall, the results of this study show that digital technology is the main support in the implementation of hybrid work. It acts as a communication tool, collaboration manager, and maintenance of productivity

rhythm. However, its effectiveness depends largely on the extent to which organizations and individuals are able to manage technology wisely, implement digital literacy, and maintain a balance between connectivity and humanity.

This research reinforces previous findings that hybrid work models require more than just digital infrastructure, they require a new mindset, an inclusive work culture, and an adaptive and empathetic leadership style. Technology is not the end goal, but rather a means to strengthen collaboration and create a more flexible, healthy, and meaningful work experience.

5. CONCLUSIONS

This research shows that digital technology plays a crucial role in supporting the effectiveness of teams in organizations that implement hybrid work systems. Through interviews with employees from various backgrounds, it was found that the use of technology is able to bridge communication, accelerate coordination, and increase work productivity in the context of integrated remote and face-to-face work.

However, the successful implementation of technology in a hybrid work environment cannot be separated from a number of challenges, such as digital fatigue, digital literacy gap, and the complexity of using various communication platforms. In addition, responsive and empathetic leadership has proven to be a key supporting factor in creating an inclusive, collaborative, and balanced work atmosphere, even though it is done virtually.

Thus, organizations that want to optimize hybrid work models need to develop work policies that not only focus on technological aspects, but also pay attention to employee welfare, communication quality, and digital literacy coaching. A holistic and adaptive approach will be key to creating teams that are effective, productive, and ready to face the challenges of the modern world of work.

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