

# A Study of Microsoft Challenges and Opportunities of Managing a Hybrid Workforce

UNDER THE GUIDANCE OF

Prof. Pratibha Pandey

Submitted by: Aishwarya Jaiswal Admission no 22GSOB2010694

GALGOTIAS UNIVERSITY

## **ABSTRACT**

The outbreak of COVID-19 generated challenges for both employers and employees over a broad spectrum of industries. People were recommended to observe social distancing and lockdowns and/or curfews for non-essential businesses were implemented. This global situation catalyzed process innovation and a transition from traditional work settings, specifically on-site work, to a remote work setting where employees use online communication requiring homes with computers and high-speed internet.

This thesis explores how work settings changed due to the pandemic, how different work settings affect work-related collaborations which is a cornerstone in the innovation process, but also to investigate differences amongst personality traits in various work settings.

The research presented herein is based on a quantitative survey of 156 respondents from a multitude of industries including several countries. The survey was designed using the Likert scale to capture how respondents perceived various aspects of collaboration before, during, and after the COVID-19 pandemic. In addition to respondent's perceptions, relevant demographic information was collected. The survey results were analyzed using descriptive statistics, CFA, SEM analysis, and statistical tests.

Differences between work settings were found regarding certain aspects of collaboration. The most notable was that informal collaboration was limited when working from home. The most important aspects of collaboration are to be able to trust collaborative partners and feel mutual respect.

Employers need to develop digital communication tools and collaboration practices when adopting a hybrid workplace. Informal interactions are an important aspect of collaboration, and these interactions are limited when working from home.

Management needs to nurture an atmosphere of trust and mutual respect for successful collaboration.

**Recommendations for future research:** Studies are recommended to focus on a specific industry or any other demographic aspect. A more diversified sample would enable exploration of how work settings affect individuals possessing different personality traits.

## INTRODUCTION

In today's rapidly evolving work landscape, organizations are increasingly adopting hybrid work models, blending remote and on-site teams. This executive summary highlights the key challenges and opportunities of managing such hybrid workforces through a comparative analysis of remote and on-site teams.

### ON-SITE WORK VS REMOTE WORK VS HYBRID WORKPLACES: PROS AND CONS



### CHALLENGES OF MANAGING REMOTE TEAMS:

Communication barriers and misalignment: Remote teams often face challenges in communication, leading to misunderstandings and decreased collaboration.

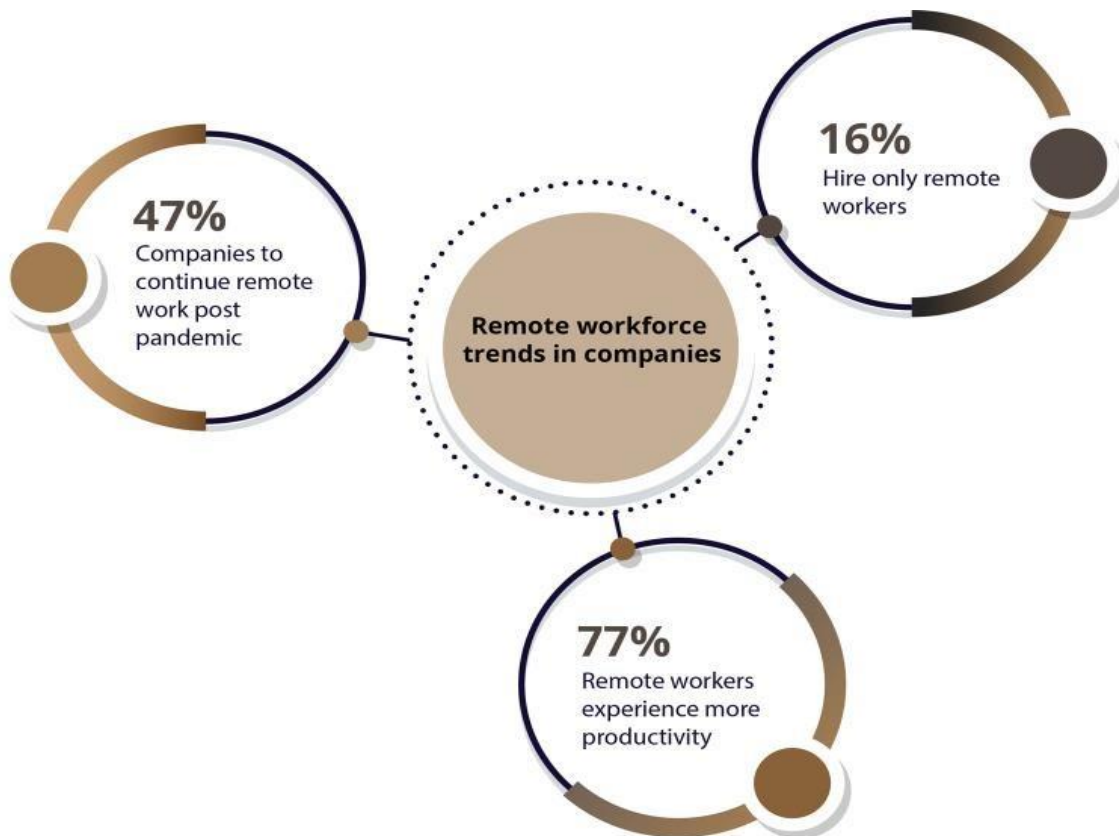
Monitoring and accountability issues: It can be difficult to track the productivity and performance of remote workers, potentially leading to concerns about accountability. Potential for social isolation and disengagement: Remote employees may experience feelings of isolation and detachment from the company culture, impacting their motivation and well-being.

### CHALLENGES OF MANAGING ON-SITE TEAMS:

Overreliance on traditional hierarchical structures: On-site teams may be constrained by rigid hierarchical systems, limiting innovation and adaptability.

Limited flexibility and adaptability: On-site work arrangements may struggle to accommodate changing needs and preferences, hindering agility.

Potential for lack of work-life balance: On-site employees may face challenges in achieving a healthy balance between work and personal life due to fixed schedules and commuting requirements.



#### OPPORTUNITIES IN HYBRID WORKFORCE MANAGEMENT:



Flexibility to accommodate diverse work preferences: Hybrid work models offer flexibility for employees to choose their preferred work environment, autonomy and satisfaction.

Access to a global talent pool: Organizations can tap into a diverse talent pool by leveraging remote work, enabling them to attract top talent regardless of geographic location.

Enhanced resilience and business continuity: Hybrid work arrangements can

improve resilience by reducing dependency on physical office spaces and enabling seamless transitions in times of disruption.

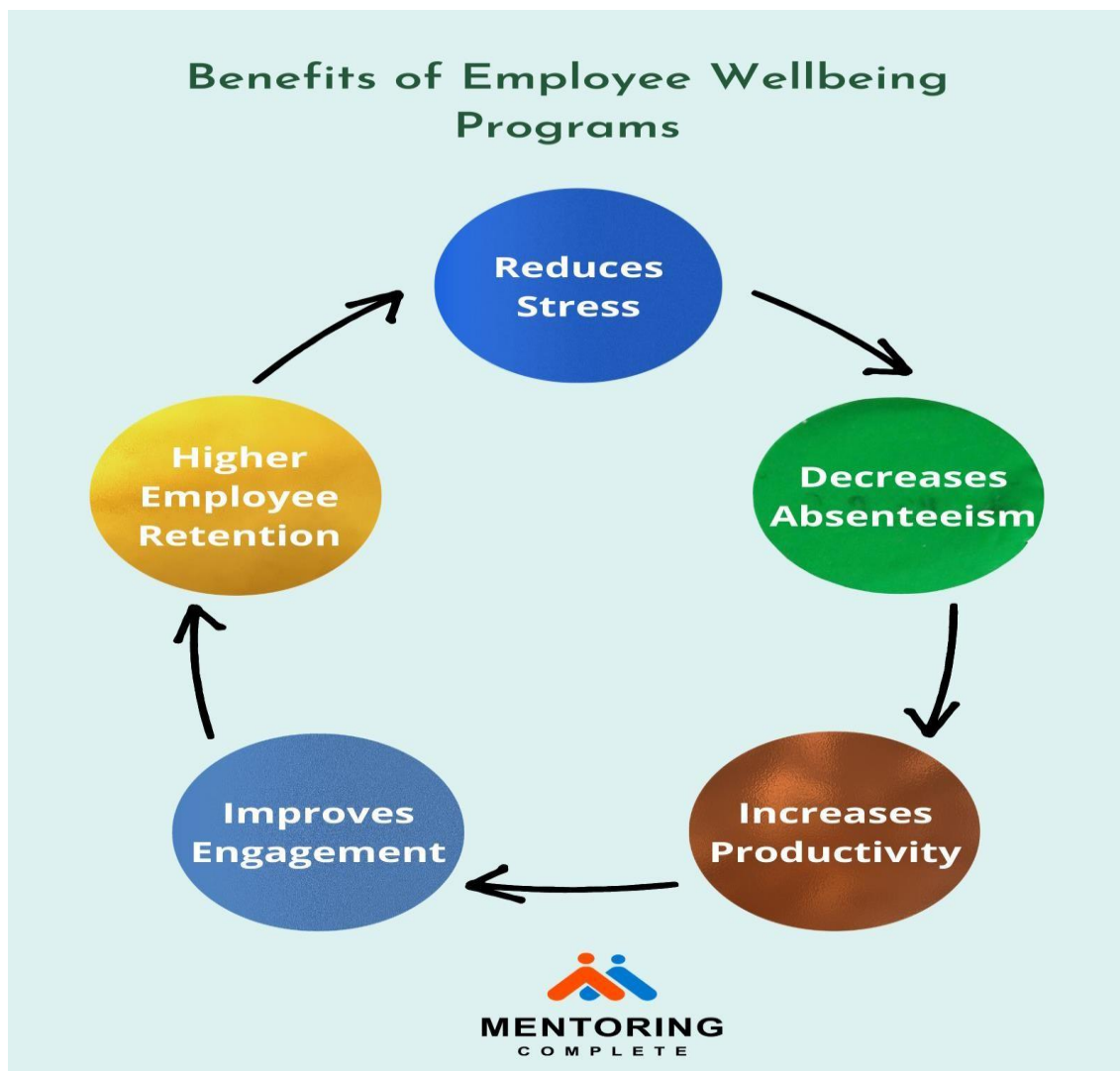
### **STRATEGIES FOR EFFECTIVE MANAGEMENT:**

Leveraging technology for seamless communication and collaboration: Organizations should invest in tools and platforms that facilitate effective communication and collaboration among remote and on-site teams.

Establishing clear goals and performance metrics: Setting clear expectations and performance metrics helps ensure alignment and accountability across hybrid workforces.

Cultivating a culture of trust, inclusivity, and empathy: Fostering a supportive and inclusive culture is essential for maintaining employee engagement and well-being in hybrid work environments.

### **PROMOTING EMPLOYEE WELL-BEING:**



Implementing flexible work schedules and policies: Offering flexible work arrangements allows employees to better balance work and personal commitments, improving overall well-being.

Providing resources for mental health support: Organizations should prioritize mental health initiatives and provide resources to support employees' emotional well-being, especially in remote work settings.

Encouraging social interaction and team bonding activities: Facilitating opportunities for social interaction and team bonding helps foster a sense of belonging and camaraderie among remote and on-site employees.

Managing hybrid workforces presents both challenges and opportunities for organizations. By addressing communication barriers, promoting flexibility, and prioritizing employee well-being, businesses can effectively navigate the complexities of hybrid work arrangements and foster a culture of collaboration.

When a firm aims to innovate, it is necessary to promote a climate at the workplace where employees interact, share goals, and share common understanding (Beaulieu et al. 2014). To develop this climate, a four-factor theory was proposed by Anderson and West (1998). The four factors in this theory are (Anderson and West 1998): (1) Participative safety: trust is essential if an employee will be involved in a team; (2) Support for innovation: new ways of working are encouraged; (3) Vision: refers to motivating factors such as higher goals and valued outcomes of innovation; (4) Task orientation: covers how employees achieve goals and strive for excellence (Beaulieu et al. 2014).

Innovation rate can be quantified using several metrics, such as the number of patents, total R&D expenditures, number of science- and technology personnel, number of science- and technology publications, total high-tech exports, capacity of internet bandwidth, number of broadband subscriptions, various customer experience metrics, and environmental metrics (Hao et al. 2017). In March 2020, the COVID-19 outbreak was characterized as a global pandemic (WHO 2023). However, businesses' R&D expenditures continued to grow worldwide in 2020, although the rate of growth was lower than 2019 (OECD 2021). The Organization for Economic Cooperation and Development (OECD) highlights that R&D investments were also aimed at other industries during this period, such as information and communication technology (ICT) and life sciences (OECD 2021). Interestingly, the number of patents applications in Sweden decreased in 2020, while the R&D expenditures continued to grow (OECD 2021).

Research on innovation in relation to the COVID-19 pandemic surrounds firms' ability to stay in business with help from reshaping and innovative activities (Montani and Staglianò 2022). As crisis occurs, a critical obstacle must be tackled with little time for decision making (Krehl and Büttgen 2022). Firms need to transform their practices to stay competitive by adopting work from home practices for employees (Arena et al. 2022; Chatterjee et al. 2022; Galanti et al. 2021; Jabeen et al. 2022). Innovative firms, such as younger firms or startups, adapted more successfully to the disruptions caused by the pandemic than non-innovators (Christa and Kristinae 2021; Krammer 2022). However, small and medium enterprises experience many obstacles in crises because they do not have resources, such as digital technology skills, to innovate quickly and adapt (Jabeen et al. 2022). Caballero-Morales (2021) means innovation could be regarded as the greatest resource for a firm to survive an event like the COVID-19 pandemic.

Kniffin et al. (2021) states that firms had to update work practices and change their ways of work (Kniffin et al. 2021). To successfully manage a digital transformation and to adopt innovative technology, several changes are required in the organizational structure (McKinsey & Company 2020). In the dramatic change due to the pandemic, employees were forced to work from home and interactions with colleagues went digital overnight. This affected innovation because informal face-to-face interactions are important when generating innovative ideas (Arena 2021), and many companies were unprepared for such events (McKinsey & Company 2020). Since collaboration is crucial for innovative work (Arena et al. 2017; Harvey 2014; Santamaría et al. 2021), there is an argument to examine if collaborative activities are affected by different work settings caused by the COVID-19 pandemic, and to explore if this is an underlying cause to the decrease in innovation.

According to Bayern (2020), 80% of US employers did not have remote work policies in operation before the global outbreak of the pandemic. However, a study of 4,000 respondents reveals that



–an expected long-term implication of the COVID-19 pandemic is that nearly half of employees will work remotely at least some of the time (Gartner 2020).

Lordan et al. (2021) further explains the need for firms to continue developing their digital tools and practices in their digital transformation. Similarly, digital maturity can be defined as –the degree to which an organization has transformed its digital processes, digital talent engagement, and digital business models (Bartsch et al. 2021).

In addition to digital maturity, an interesting aspect is how different work settings, affect and are affected by employees' personality traits. As the process generating innovation requires both introverted and extroverted activities (Swann 2009: 127), it is interesting to study how employees with extroverted- or introverted traits are affected when working from home or in a hybrid work setting. Some traits and activities could be better suited for certain work settings. A comparative study between traditional office work and hybrid work setting, where work from home is combined with regular office work, could generate guidance for firms selecting future work practices.

The research study presented herein, can give a valuable contribution to managers adjusting work settings. Interestingly, this study demonstrates that the pre-pandemic work setting enhanced all parts of collaboration, while working from home suppressed informal collaboration. Furthermore, in a hybrid work setting both formal collaboration and management's influence on collaboration is enhanced compared to the pre-pandemic setting. The study also demonstrates no clear differences between the different work settings and extroverted- and introverted individuals which previous research indicate (Parra et al. 2022). This clearly highlights that more research is required to gain better understanding on how different work settings affects different individuals, and how to facilitate future design of optimal work environment.

## **PREVIOUS RESEARCH**

To learn about the topic of this study and to acquire knowledge of what have been researched, a review of past literature was conducted. This section covers areas like collaboration, different work settings, personality traits, and innovation.

## **COLLABORATION AND WORK SETTINGS**

Collaboration has a positive impact on innovation (Nieto and Santamaría 2007). Research from the University of Tennessee reveals that innovation and collaboration are not mutually exclusive (Sunderland 2018), meaning that collaboration and innovation feed and breed upon each other.

Patel et al. (2012) offers a framework of factors influencing collaboration. Among the factors influencing collaboration are how management contributes to collaboration, such as organizational structure, goals, and decision-making. Furthermore, resources, roles, relationships, mutual respect between collaborative parties, and trust play an integral role in collaborative activities (Patel et al. 2012). Limited trust in collaborators is a major obstacle (Nielsen 2004), and effective communication is vital for collaborative interactions (Johns et al. 2021; Patel et al. 2012).

Larger firms aiming at successful innovative work must realize it is a social phenomenon (Arena et al. 2017). Other studies agree that collaborations are crucial in innovative work (Arena 2021; Santamaría et al. 2021). Arena et al. (2022) discusses the importance of proximity, and face-to-face interactions, generating flow of ideas through informal interactions at the workplace. Montani and Staglianò (2022) report that it is salient to maintain knowledge sharing during times like the COVID-19 pandemic, to enhance innovation. This can also decrease job stress induced by the pandemic

Collaborative creativity is essential when solving great challenges (Jarvenpää and Välikangas 2020). Important in creating innovative ideas are the different perspectives brought to the table by members of a group (Harvey 2014). To adapt businesses to disruptions, Arena (2021) states that managers need to value social interactions when assessing innovative ideas and insights. Face-to-face meetings are considered to offer the highest level of social presence (Gajendran and Harrison 2007). When working from home, the frequency of such interactions will change. Another social interaction is informal collaboration, which was often lost during the COVID19 pandemic (Pillai and Prasad 2023). Informal collaboration implies non-routine interactions helping future progress and change, happening beyond the team. Informal interactions occur casually when employees spontaneously share knowledge or resources. When working remotely, the role of informal relationships generating collaboration becomes even more vital (OrgMappe 2023). On the other hand, formal interactions contain routines and drive execution and support at the workplace (Arena 2022). Formal interaction often happens within a team at planned occasions and formal collaboration is often controlled by someone and takes off from a strategy where planned meetings are vital (Prendes Espinosa and Castañeda Quintero 2009). Formal collaboration often includes bilateral agreements, while informal collaboration, dependent on trust and reputation, often minimizes costs for collaborative activities (Terman et al. 2020).

## **REMOTE WORK AND WORK FROM HOME**



Chatterjee et al. (2022) describe remote work as arrangements, making employees able to work from other locations than the office. They also add work time flexibility and infrastructural flexibility to formulate the term remote work flexibility (Chatterjee et al. 2022). The development of ICT has made it possible for employees to work remotely, offering greater flexibility (Sharma et al. 2022). Firms are better equipped for the transition to remote work if located where high-speed internet is well-developed. The two main differences between virtual teams working remotely and conventional teams are the geographical distance, and that technology mediates communication (Krehl and Büttgen 2022). During a lockdown, remote work is limited to being performed at home.

To collaborate in a remote work setting, there are distances to overcome. Physical distance refers to not working at the same place and time, operational distance refers to team size, bandwidth, etc., and affinity distance refers to values, trust, and interdependencies (Dhawan and Chamorro-Premuzic 2018). When collaborating remotely, it is best to reduce the affinity distance, by communicating via video calls, rather than e-mails. Mastering remote communication can even grant an advantage over co-located teams

onsite (Dhawan and Chamorro-Premuzic 2018).

As discussed in the theory section, 3.1, Johansen's time-space matrix is a framework for studies on collaboration (Neumayr et al. 2021). When working remotely, with no co-located work, no face-to-face interactions or continuous work in a team room will happen. When collaborating remotely, video usage is correlated with inclusiveness. Remote meetings must still improve in several ways, one is to help participants to interrupt and receive the right to speak (Cutler et al. 2021). Collaboration when working remotely has been studied at Microsoft, where researchers found that remote work caused more static and siloed collaboration networks, making it more difficult for employees to acquire and share information across networks (Yang et al. 2022). Meetings with remote participants often suffer from social and cultural asymmetries, which need to be managed to ensure successful meetings in a hybrid work setting (Saatçi et al. 2019).

Highlights of work from home, are according to Pillai and Prasad (2023) lower stress and better balance between work and family. This is most distinctive for female employees (Pillai and Prasad 2023). Rodgers and Rodgers (1989) called, already in 1989 for changes in work practices when they proposed actions to be taken for better ways to combine business and family. Arena et al. (2022) and Chatterjee et al. (2022) state that firms adopting remote work systems, gain employee satisfaction and productivity. Galanti et al. (2021) confirmed employees' autonomy as positively affected by work from home. Another study finds that employees prefer remote work because of convenience and costs related to commuting (Saurombe et al. 2022).

On the other hand, studies report disadvantages related to work from home when closed childcare and schools inflicts interruptions on work tasks since children are staying at home (Como et al. 2021; Johns et al. 2021), or when employees suffer from social isolation (Galanti et al. 2021; Saurombe et al. 2022). Social isolation can, according to Nyberg et al. (2021), Pillai and Prasad (2023), and Sharma et al. (2022) reduce productivity, and affect collaboration negatively (Jarvenpaa and Välikangas 2020). Work from home can also generate increased attrition (Pillai and Prasad 2023), because employees must work longer hours to prove productivity (Saurombe et al. 2022), leading to decreased organizational coherence (Soga et al. 2022) with less effective communication (Pillai and Prasad 2023). Job engagement is negatively related to working from home, due to risks of reduced support and feedback from employers (Sardeshmukh et al. 2012). van der Lippe and Lippényi (2020) conclude that individual employees perform better when their colleagues do not work from home. Pillai and Prasad (2023) state that firms in India's IT-sector utilized 60% virtual work in April 2020. This number increased to 80% in August 2020, and is believed to reach nearly 100% in the future (Pillai and Prasad 2023).

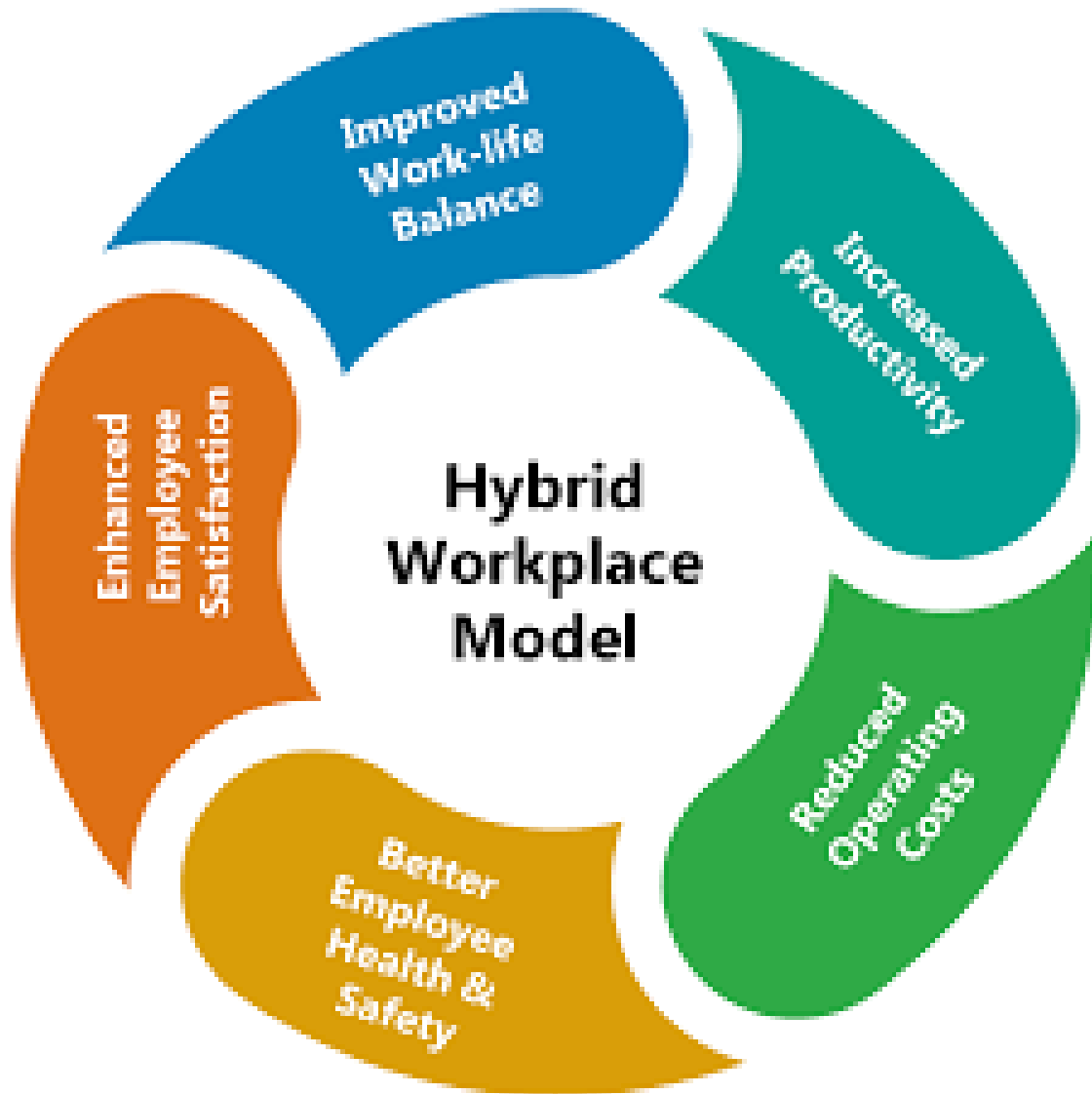
## **HYBRID WORK SETTING**





The COVID-19 pandemic caused swift development of technology, enabling remote work settings. When lockdowns eased, several firms organized a hybrid work setting (PwC 2023). Going back to the pre-pandemic workplace is not an option (Kane et al. 2021) as the hybrid work setting offers as much flexibility as possible, letting employees choose where to physically work (Chamorro-Premuzic 2021). When firms choose work setting, it is important to notice that informal communication contributes more to the firm's culture and practices than communication tools do (Lordan et al. 2021).

Iqbal et al. (2021) list several pros and cons when adopting a hybrid work setting. Among the advantages are maximized productivity because employees appreciate that the firm offers great flexibility for employees, reduced expenses regarding smaller office space and less commuting, and adoption of advanced technology (Iqbal et al. 2021). Disadvantages remind of the cons related to forced work from home; the risk of isolation and less physical interaction leading to less informal brainstorming, and risks regarding cyber breaches (Iqbal et al. 2021). Kane et al. (2021) proclaim firms need to evolve virtual work to continue knowledge sharing in organizations, as this has been an issue in innovation related to remote work. As discussed in the theory section, 3.1, Johansen's time-space matrix is a framework for studies on collaboration (Neumayr et al. 2021). Well-functioning ICT enables constant switching between the quadrants of the matrix when working in a hybrid setting. A team can switch between being co-located onsite, remote work, and a mix of the two (hybrid), making it possible to enjoy both effective collaboration and great flexibility (Neumayr et al. 2021). When employees are offered a hybrid work setting, it is recommended to schedule interactions to get them to meet both in physical meetings and at coffee breaks (Rockwell 2021). Rethinking the role of the office can be beneficial, where it is tilted toward becoming a place for collaboration and not solo work (Rockwell 2021). A previous study conducted amid the pandemic indicated that the vast majority of the survey respondents would prefer either to continue working from home, or in a hybrid work setting (Johns et al. 2021).

**PERSONALITY TRAITS AND WORK SETTINGS**

The Australian Council for Educational Research, ACER, offers a framework for developing collaborative skills (Scolar et al. 2020). In this framework, three strands are constructed from constituents covering collaborative aspects. In the first strand, aspects included surround communication, resource, and information pooling, and negotiating of roles and responsibilities. The second strand includes aspects regarding participating in the team, recognizing contribution of others, and engagement in responsibilities. The last strand about regulation covers aspects such as ensuring relevant contribution, maintaining shared understanding, resolving differences and adapt behaviors. When assessing personality traits, according to the big five factor representation, individuals possessing elevated levels of extroversion, openness, and conscientiousness can be skilled for tasks in the first strand because extroverts are talkative, open individuals caring for new things, and the conscientious spend time preparing (Mind Health 2023). Individuals high on

agreeableness can have great skills in tasks from the second strand because they show interest in other's contribution. For the final strand, individuals high on agreeableness and conscientiousness can be skilled.

Previous studies on personality traits in relation to the COVID-19 pandemic and the challenges brought upon employees, have been focused on their well-being and exhaustion (Ahmed et al. 2021; Parra et al. 2022), and productivity (Gavoille and Hazans 2022). In recent research by Gavoille and Hazans (2022), the Ten Item Personality Measure, TIPI, was used to estimate personality traits. The reason is this method contains ten questions, making it convenient in large-scale surveys, while other methods can include up to 260 questions (Gavoille and Hazans 2022). Research found that lower extroversion and higher neuroticism were associated with higher stress during the lockdowns (Ahmed et al. 2021). According to the findings of a study conducted by (Stock et al. 2016), people ranking high on openness are more prone to generate new product ideas. They also found that being introverted and conscientious is positively related to prototyping (Stock et al. 2016). A study conducted in Germany revealed that the lonelier individuals were before lockdown, the smaller was the increase in loneliness during times of lockdown (Entringer and Gosling 2022). This implies that extroverted individuals suffer more than introverted when forced to work from home.

### **COLLABORATION**



Collaboration can be defined as –a joint effort of multiple individuals or work groups to accomplish a task or a project (TechTarget 2016). Collaboration has several influential aspects, as it requires working together in teams. To organize collaboration, a theoretical framework, focused on in this thesis, was developed by

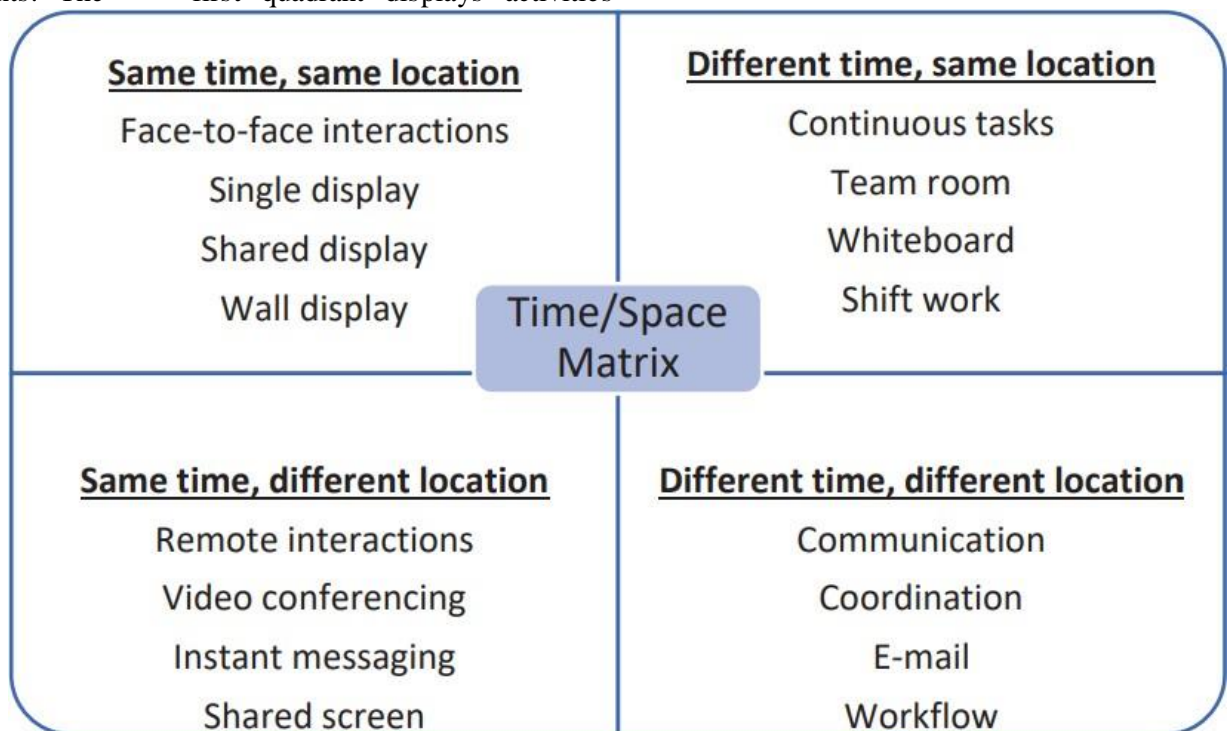
(Mattessich and Monsey 1992), containing six categories influencing the success of collaboration:

- **Environment:** history of collaboration, and political and social climate.
- **Membership:** Mutual respect and trust among collaborators, and ability to compromise.
- **Process:** Members share a stake in process and outcome, multiple layers of decision making, flexibility, and clear roles and policy guidelines.
- **Communications:** open and frequent, with established formal and informal links.
- **Purpose:** Concrete, attainable goals, shared vision, and unique purpose.
- **Resources:** Sufficient skills and funds.

Two perspectives of collaboration are formal and informal collaboration (Slack 2022). Formal interactions at the workplace rely on the official source of information, following a static, topdown flow of information often originating from a manager. On the other hand, informal activities are less rational, recognizing social needs underlying communications (Johnston et al. 1994).

There are several frameworks for studying collaboration and interactions between humans. One of the popular is Johansen's time-space matrix which includes four quadrants, see Figure 1 (Neumayr et al. 2021).

This theory, which this thesis focuses on, categorizes group activities temporally and locally, generating four quadrants. The first quadrant displays activities



happening at the same place and at the same time, such as face-to-face interactions. The second quadrant displays activities at the same place but at separate times, such as continuous work. The third quadrant exhibits activities at different places at the same time, such as remote work. Finally, the fourth quadrant covers activities at different places and different times, such as e-mails. This theory can explain how the influence of different work settings can admit or deny certain activities.

### **WORK SETTINGS**

When studying work settings, it is beneficial to notice characteristics of different work settings and how they are defined. When working from home, an employee sets up an office at their home (IONOS Inc. 2022), existing off equipment supplied by the employer. Remote work, on the other hand, is a work setting where the employer works at any other place, but a place operated by the employer (VMware Inc. 2023). This can be at home, a shared coworking office, or at any other place outside the office. A hybrid work setting is a combination of working remotely and working at the office provided by the employer (SAP 2023). After the COVID19 pandemic, when well-functioning ICT was present, firms in various industries chose to let employees work in a hybrid setting, aiming to offer great flexibility to employees.

The concept of working from home originates from telecommuting and was coined by Nilles (1975). Telecommuting, or teleworking, (Bailey and Kurland 2002) offered decentralization of large organizations by an increasing availability of communication tools (Nilles 1975). The benefits of telework were originally reduced real estate costs, lower costs for commuting to offices and less pollution caused by traffic (Kos sen and van der Berg 2022).

### **Company MICROSOFT**

#### **MISSION**

Microsoft Corporation's mission statement is **"to empower every person and every organization on the planet to achieve more."**

#### **VISION**



Microsoft Corporation's vision statement is **"to help individuals and businesses realize their full potential."**

The new logo includes four squares with the colors of the then-current Windows logo which have been used to represent Microsoft's four major products: Windows (blue), Office (red), Xbox (green) and Bing (yellow).

### **HISTORY OF MICROSOFT**

Childhood friends Paul Allen and Bill Gates sought to make a successful business utilizing their shared skills in computer programming. In 1972 they founded their first company, named Traf-O-Data, which sold a rudimentary computer to track and analyze automobile traffic data. While Gates enrolled at Harvard, Allen pursued a degree in computer science at Washington State University, though he later dropped out of school to work at Honeywell. The January 1975 issue of Popular Electronics featured Micro Instrumentation and Telemetry Systems (MITS) Altair 8800 microcomputer, which inspired Allen to suggest that they could program a BASIC interpreter for the device. After a call from Gates claiming to have a working



interpreter, MITS requested a demonstration. Since they didn't yet have one, Allen worked on a simulator for the Altair while Gates developed the interpreter. Although they developed the interpreter on a simulator and not the actual device, it worked flawlessly when they (in March 1975) demonstrated the interpreter to MITS in Albuquerque, New Mexico. MITS agreed to distribute it, marketing it as Altair BASIC: 108, 112–114 Gates and Allen officially established Microsoft on April 4, 1975, with Gates as the CEO. The original name of "Micro-Soft" was suggested by Allen. In August 1977 the company formed an agreement with ASCII Magazine in Japan, resulting in its first international office, "ASCII Microsoft". Microsoft moved to a new home in Bellevue, Washington in January 1979.

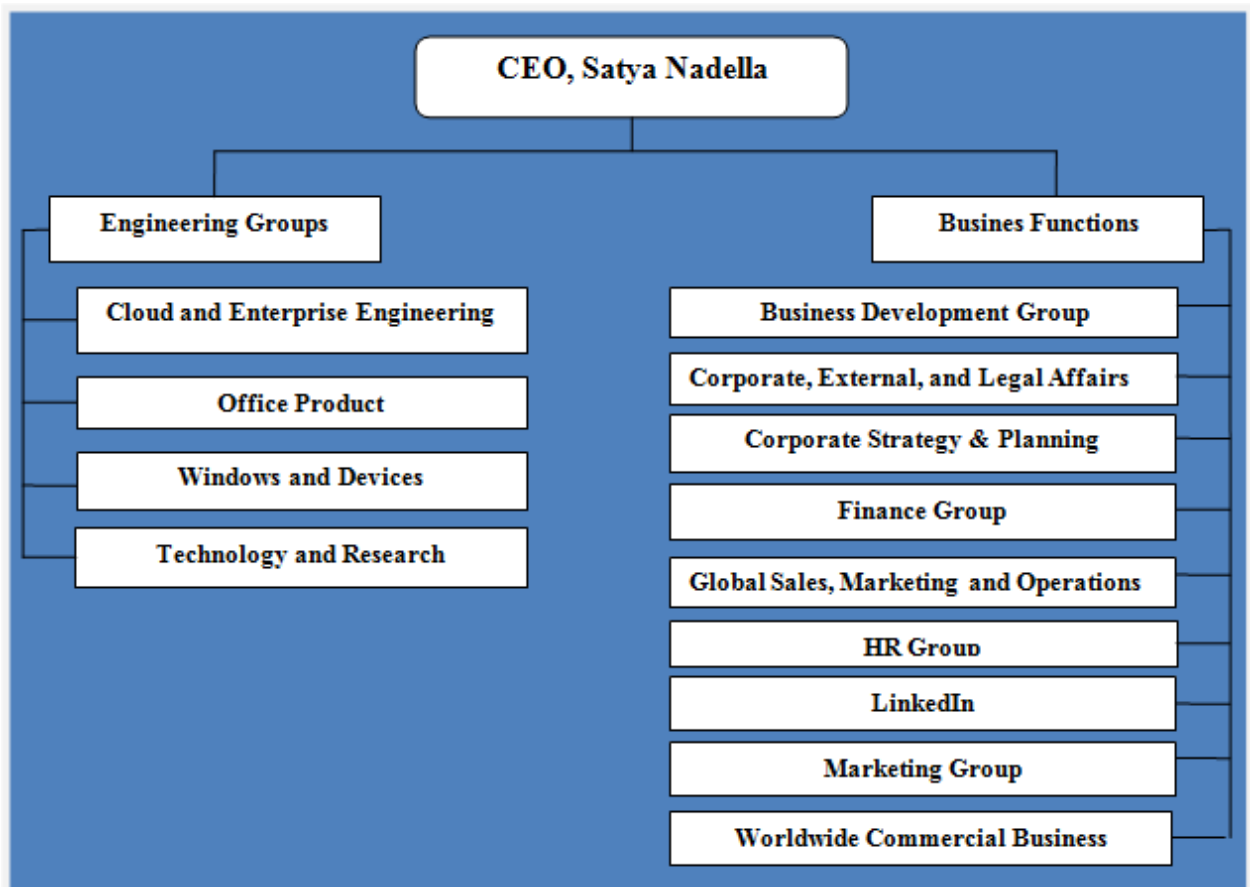
Microsoft entered the operating system (OS) business in 1980 with its own version of UNIX, called Xenix. However, it was MS-DOS that solidified the company's dominance. After negotiations with Digital Research failed, IBM awarded a contract to Microsoft in November 1980 to provide a version of the CP/M OS, which was set to be used in the upcoming IBM Personal Computer (IBM PC). For this deal, Microsoft purchased a CP/M clone called 86-DOS from Seattle Computer Products, which it branded as MS-DOS, though IBM rebranded it to PC DOS. Following the release of the IBM PC in August 1981, Microsoft retained ownership of MS-DOS. Since IBM had copyrighted the IBM PC BIOS, other companies had to reverse engineer it in order for non-IBM hardware to run as IBM PC compatibles, but no such restriction applied to the operating systems. Due to various factors, such as MS-DOS's available software selection, Microsoft eventually became the leading PC operating systems vendor. The company expanded into new markets with the release of the Microsoft Mouse in 1983, as well as with a publishing division named Microsoft Press. Paul Allen resigned from Microsoft in 1983 after developing Hodgkin's disease. Since the 1990s, it has increasingly diversified from the operating system market and has made a number of corporate acquisitions—their largest being the acquisition of LinkedIn for \$26.2 billion in December 2016, followed by Skype Technologies for \$8.5 billion in May 2011.

As of 2015, Microsoft is market-dominant in the IBM PC-compatible operating system market and the office software suite market, although it has lost the majority of the overall operating system market to Android.

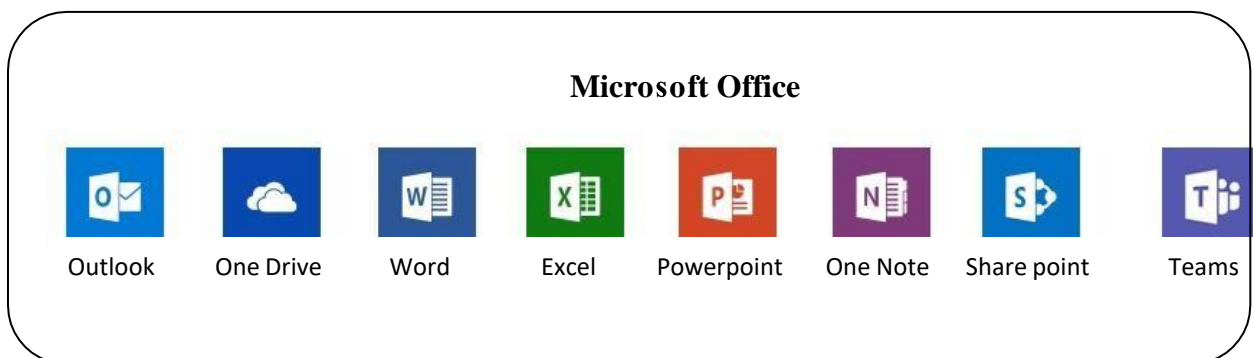
## MICROSOFT'S CORPORATE STRUCTURE

Microsoft Corporation has a product type divisional organizational structure. This structure involves divisions that are based on certain computer hardware and software products, or organizational outputs. The following characteristics are significant in Microsoft's organizational structure:

1. Product type divisions (most dominant structural feature)
2. Global corporate groups
3. Geographic segments



## PRODUCT LIST



## CLIENT LIST

ABC International Bank PlcABC News  
Aberdeen Ass e t Management Accenture  
Accor Gro up  
Air New Zealand  
Al Jaze e ra International Ltd Alliance Healthcare  
AMAZON (previously LOVEFiLM)AMEC Group  
Amey plc  
Anglo American  
Bank Of America Merrill LynchBank of England  
Bank of Ireland  
Bank of London & the Middle East Bank of New York Mellon  
BANK OF TOKYO-MITSUBISHI  
Barbican Insurance Group Barnardo 's  
Barne t Home s BaxterSto re y  
BG Group - bought by Shell (BSBD account)Brit Insurance  
Britis h Ame rican To bacco Britis h Trans port Police Bupa  
Burberry  
Bus iness Training Partne rship NO LONGER TRADING C2C Rail  
Cambridge Univers ity Hospital  
Canon Europe  
CHELSEA AND WESTMINSTER HOSPITAL  
Chevron Products UK Limite d  
Chubb Ins urance Company o f Euro pe SE Compass  
Credit Suisse  
De Agos tini UK Ltd Debenhams  
Defence Scie nce and Technology Laboratory DHL  
Financial Services Autho rity Fo od Standards Agency Kingfisher  
Knauf DrywallKo dak Limite d  
London Luton Airport London Stock Exchange Macmillan Publishers Ltd Marie Curie Cance r Cae Markit  
Marks and Spe ncer  
Marks and Spe ncer Mo ne y McDo nald's Restaurants Ltd Metropo litan Po lice  
MF Global (NO LONGER TRADING)  
Micros oft PUMA  
Sage Pay  
Sage Publishers Sainsburys PLC Samsung Ele ctronics UK  
Scottis h & Southern Energy S kype  
Smith & Nephew

Smith & Williamson So ny Euro pe  
So nyDADC

Special Olympics Great Britain

St Geo rge 's University of London STA Travel

Standard Chartere d Bank State Street IMS

Te sco Mo bile The Body Shop

The Capita Group Plc Toyota

Transport for LondonUnile ve r

UNISON

Unite d Utilities PLC Univers ity of Birmingham Univers ity of Cambridge

## ABOUT MICROSOFT SERVICES

Empowering your Enterprise to do more and achieve more in a mobile - first, cloud-firs t world.

### Commitment to enterprise customer satis.faction

Microsoft is committed to maintaining high le vels of satisfaction among our enterpris e custome rs and partners . We work to understand your needs and use your feedback to drive innovation and the highest quality customer experience.

## LITERATURE REVIEW

The literature revie w provides a comprehensive overview o f existing res earch, the orie s, and empirical studies related to the challenges and oppo rtunities of managing remote and on-s ite teams within hybrid work e nvironments. By synthesizing and analyzing relevant literature, this review aims to identify key the mes, insights, and gaps in kno wledge to inform the co mparative analys is of remote and o n-site teams 'manage ment in hybrid wo rk settings .

### Evolution of Workfo rce Dynamics :

His to rical context: The evolution of remote work and its impact on traditio nal wo rk arrangements.

Emergence of hybrid work mode ls : Factors driving the adoption of hybrid wo rk arrangements and their implicatio ns for organizational structures and manage ment practices.

### Remote Work Challenge s and Oppo rtunities :

Communication and co llabo ration: Studie s e xamining communication challenges in remote teams and strategies fo r fostering co llaboration and co he sion.

Perfo rmance management: Re search o n remote work performance metrics, monito ring mechanisms , and strategies for enhancing accountability and productivity. Employee well-being: The impact o f remote work on e mployee well-being, including s tres s, burno ut, and s trate gies for promoting work-life balance and mental health.

### On-site Wo rk Challe nge s and Opportunities :

Organizatio nal structures : The influence of traditional hie rarchical structures o n o n- s ite te am dynamics and inno vation.

Flexibility and adaptability: Studie s exploring the limitations of on-site work arrangements in accommo dating changing needs and preferences and s trate gies fo r promoting flexibility and agility.

Work-life balance: Res e arch o n the challenges o f maintaining wo rk-life balance in on-site wo rk enviro nments and interventio ns to s upport employees ' well-being.

**Hybrid Workforce Management Strategies:**

**Technology adoption:** The role of technology in facilitating communication, collaboration, and seamless integration between remote and on-site teams.

**Leadership and culture:** The importance of leadership in fostering a culture of trust, inclusivity, and empathy to support hybrid work environments.

**Performance measurement:** Strategies for establishing clear goals, performance metrics, and evaluation criteria to ensure alignment and accountability across hybrid teams.

**Employee Well-being in Hybrid Work Environments:**

**Flexible work policies:** The impact of flexible work policies on employee satisfaction, retention, and engagement in hybrid work settings.

**Mental health support:** Initiatives and resources to promote mental health and well-being among remote and on-site employees, including counseling services, mindfulness programs, and stress management techniques.

**Social interaction:** The role of social activities, team-building exercises, and virtual events in fostering a sense of community and belonging among hybrid workforce members.

The literature review highlights the multifaceted nature of managing remote and on-site teams within hybrid work environments, encompassing challenges related to communication, collaboration, performance management, and employee well-being, as well as opportunities for leveraging technology, fostering organizational culture, and promoting work-life balance. By synthesizing existing research and identifying gaps in knowledge, this review provides a foundation for the comparative analysis and offers insights into effective strategies for managing hybrid workforces in the digital age.

**Dahlia Baker (2021)** finds the pandemic has noncontinuous nearly each facet of our lives, together with tasks as basic as getting to work. The modification has brought with it each opportunities and challenges. The use of digital services to carry conferences, webinars Associate in Nursing conferences has enhanced at an avalanche like pace. Before the pandemic took hold, there was an additional ancient read of labor - with the general perception that employment tasks ought to be performed within the workplace. As a stark distinction to the present more ancient read of labor, nearly seventy five p.c of Swedish workplaces was forced to change to operating remotely in a very short time and lots of believe that this can result in permanent changes in however Swedish offices square measure designed. There square measure varied indications that the majority individuals wish to continue operating in offices within the future further. On the opposite hand, the Operating lifetime of the future is characterized by Associate in Nursing enhanced demand for versatile solutions. analysis exhibited that most structure and work variables were significantly connected with the end result measures productivity and work satisfaction, whereas individual and social unit variables were considerably less correlated. For organizations, this is often immensely useful, since structure and work related characteristic variables square measure so much easier influenced by procedures and time unit policies rather than individual work vogue and social unit factors.

**Kanwar Muhammad Javed Iqbal, Farooq Khalid, Sergey Yevgenievich Barykin(2021)** says that the hybrid geographical point may be an idea on the lips of each industry trend within the world nowadays. With digitalization changing into additional normalized across each sphere within the world village. each geographical point must maximize and transcend obstacles and innovations to ease into the hybrid geographical point. The COVID-19 pandemic brought a wave for associate degree inflated world like for a hybrid geographical point. though some countries have relaxed the imprisonment in the states, businesses are taking their time to line up an additional formidable work arrangement. several are already operational the hybrid system whereas others are running totally remote. The pandemic has tutored the work a lesson of preparation and designing. on the far side that's additionally the lesson of flexibility and adaptableness within the geographical point. In prioritizing the long run of labor, there's



the necessity to embrace the hybrid geographical point model. Indeed, the long run of labor would possible be the hybrid geographical point model.

**Patrícia Vasconcelos, Elizabeth Furtado, Plácido Pinheiro(2015)** says that The thought of telework is said to the accomplishment of distance work with the support of technology. It needs associate degree execution model of labor activity in programme of flexible Work distance (FW), staff and rules for conducting this execution. This analysis was applied to a company that established an FW project. For analysis of the alternatives of FW models we have a tendency to apply 2 ways of Verbal decision Analysis (VDA). the primary technique was accustomed classify the standards and therefore the second to ordain them with the target of realize a ranking of the alternatives in step with the preferences of concerned.

**Prithwiraj (Raj) Choudhury, Tarun Khanna, Christos A. Makridis, Kyle Schirmann(2022)** tells that Hybrid work is rising as a unique kind of organizing work

globally. This paper reports causative proof on however the extent of hybrid work—the variety of days worked from home relative to days worked from the office—affects work outcomes. Collaborating with a company in Asian nation, we tend to randomised the quantity of days that individual staff worked from the workplace for 9 weeks within the summer of 2020. Our leads indicate that associate intermediate variety of days within the workplace results in a lot of emails sent, the next variety of email recipients, and augmented novelty of labor merchandise. Our check for underlying mechanisms suggests that hybrid work may represent the —best of each worlds, providing staff bigger work-life balance, while not the priority of being isolated from colleagues.

**Danijela Sokolic(2022)** tells that Remote work, particularly performing from home, has become the foremost common kind of add the third decade of the twenty first century. What started at the start of the millennium as Associate in Nursing experimental apply in some corporations (mainly within the IT industry) has become widespread and unintentional in **2020 and 2021**, because of Covid nineteen pandemic. It modified a number of the foremost important options of the roles, like the communication patterns and also the conception of the workplace, leading not solely to vital changes within the method work is completed, however conjointly to a different psycho-emotional perception of labor within the context of adjusting socialization patterns. The need to transition to a virtual setting forced each corporations and staff to do out different ways of operating (e.g., managing virtual groups, guaranteeing infrastructure and access to work resources, managing groups, workspaces, etc.). The paper addresses a number of the key factors that influence work performance at the structure and individual levels. It presents how technological developments and growing awareness of different approaches to figure organizations measure dynamical companies' perceptions of managing their Most worthy resource, human potential, and discuss potential failures in teleworking policies. The goal of this study is to supply insight on the impact of geographical point flexibility on work and also the broader implications for each corporations and staff.

**Monika Grzegorzczak, Mario Marinello, Laura Nurski and Tom Schraepen (2021)** tells that With the roll-out of COVID-19 vaccines, countries square measure commencing to imagine a future in which workers' and employers' decisions don't

seem to be conditioned by the pandemic. The crisis hit everyone one way or another however

additionally generated a chance. it's shown that employees with appropriate jobs will with efficiency work remotely, with no negative implications for his or her productivity or performance. Telework could even unlock new operating processes with the final word impact of increasing productivity. The pandemic crisis has additionally stressed the necessity for the creation of safeguards at intervals the work surroundings to safeguard employees' well-being. Associate in Nursinging to make sure an economical mixing of remote and on-the-scene workers, with no variations within the method they're treated or their career opportunities.

**Antoni Wontorczyk, Bohdan Roznowski(2022)** tells that With the COVID-19 pandemic having no continuous economies, businesses, and individual activities, it's vital to look at however completely different varieties of work have an effect on worker behavior. This study applies work engagement (the key construct in organisational psychology) because the dependent variable and considers its

determinants within the type of stress factors and attitudes toward remote work. The selection for the study was purposive. Standardised survey questionnaires were utilized in the study: UWES-9, Stress Management Standards, and Attitudes toward Remote Work. The obtained results indicate that there have been no vital differences between teams in terms of the intensity of labor engagement, however work engagement was explained by alternative variables that are a unit completely different in every of the studied teams. Relationships and use of social media were the foremost vital factors among remote staff. For on-the-spot staff, the most important factors were management and role definition. For practitioners, the results indicate that aspects of labor ought to be thought of so as to take care of high levels of labor engagement once employees are unit transferring to alternative varieties of work.

## **OBJECTIVE OF THE STUDY**

- To Identify and examine the distinct characteristics, advantages, and drawbacks of remote and on-site teams in the context of hybrid work arrangements.
- To explore the key challenges faced by managers in effectively managing remote and on-site teams, including communication barriers, performance monitoring, and employee well-being.
- To investigate the opportunities presented by hybrid work models, such as flexibility, access to global talent, and enhanced resilience, and their implications for organizational structures and management practices.
- To analyze strategies and best practices for optimizing productivity, fostering collaboration, and promoting employee well-being in hybrid work environments, drawing upon existing literature, empirical studies, and industry insights.
- To provide practical recommendations and guidelines for organizations to navigate the complexities of managing hybrid workforces effectively, including leveraging technology, cultivating a supportive organizational culture, and implementing flexible work policies.
- To Offer insights into the evolving landscape of hybrid work arrangements and their implications for future research, policy development, and practice in workforce management.

## **RESEARCH METHODOLOGY**

This research will employ a mixed-methods approach, combining quantitative and qualitative data collection methods. Potential methods include:

**SURVEYS:** Distributed to both remote and on-site employees at Microsoft to gather data on work experiences, communication preferences, and perceived challenges and benefits of the hybrid model.

**INTERVIEWS:** Conducted with managers and team members from both remote and on-site teams to gain deeper insights into their perspectives and experiences.

**DOCUMENT ANALYSIS:** Examining internal Microsoft documents related to hybrid work policies, communication strategies, and performance management practices.

### **RESEARCH DESIGN**

The research design section provides a detailed explanation of the study's design, including the rationale behind the chosen methods and techniques. It discusses the strengths and limitations of the research approach and provides insights into the reliability and validity of the findings.

### **SAMPLE SIZE**

The sample size consisting of 156 respondents will select for the study.

### **SAMPLING DESIGN**

Since it is difficult to contact the entire population, sampling technique was adopted. The employees were interviewed using convenience sampling techniques.

### **QUESTIONNAIRE DESIGN**

Questionnaire was designed in consultation with the experts of Company in such a manner that it would facilitate the respondents to reveal maximum information.

### **LIMITATIONS OF THE STUDY**

While this study endeavors to provide valuable insights into the challenges and opportunities of managing remote and on-site teams within hybrid work environments, it is important to acknowledge certain limitations that may impact the generalizability and comprehensiveness of its findings. These limitations include:

**Sample Bias :** The study's findings may be influenced by the characteristics and experiences of the sampled organizations, which may not fully represent the diversity of industries, organizational sizes, and geographic regions. This could limit the generalizability of the findings to broader populations of organizations.

**Time Constraints :** Due to time constraints inherent in conducting research, the study may not capture the most up-to-date developments and trends in hybrid work arrangements and workforce management practices. As the field continues to evolve rapidly, there may be emerging challenges and opportunities that are not addressed in this study.

**Data Collection Methods:** The study relies primarily on existing literature, empirical studies, and industry best practices to inform its analysis. While these sources provide valuable insights, they may be subject to biases, limitations in scope, and inconsistencies in methodologies that could impact the reliability and validity of the findings.

**Self-Reporting Bias:** In cases where empirical studies rely on self-reported data from participants, there may be inherent biases such as social desirability bias or recall bias, which could influence the accuracy and reliability of the findings.

**Contextual Factors:** The effectiveness of management strategies and practices in hybrid work environments may be influenced by contextual factors such as organizational culture, industry norms, regulatory requirements, and technological infrastructure. These contextual factors may not be fully accounted for in the study's analysis.

**Ethical Considerations:** While efforts have been made to ensure the ethical conduct of the study, including maintaining confidentiality and respecting participants' rights, ethical considerations such as privacy concerns and data security may still pose potential limitations.

## DATA ANALYSIS AND INTERPRETATION

The survey generated 156 responses over two weeks. Among the respondents, 63% are men, 36.5% women, and 0.5% non-binary. Several age groups are represented, and the greatest are 35 to 44 years old (42%) and 45 to 54 years old (27%). Most respondents reside in Sweden (76%), followed by the USA (27%). 90% of the respondents work as full-time employees and 31% have a PhD or higher, 26% have a master's degree, 19% a bachelor's degree, and 10% a high school, or a GED degree. 84% of respondents worked from an office prior to the COVID-19 pandemic, while 83% worked from home during the pandemic.

There are several industries represented in the study and the industries in the final dataset are visualized in Figure 3 where the most represented industries are Energy, Education, Biotechnology, and Engineering. Industry and sector are the only demographic indicators offering any patterns when examining the dataset, as described below.

Industries

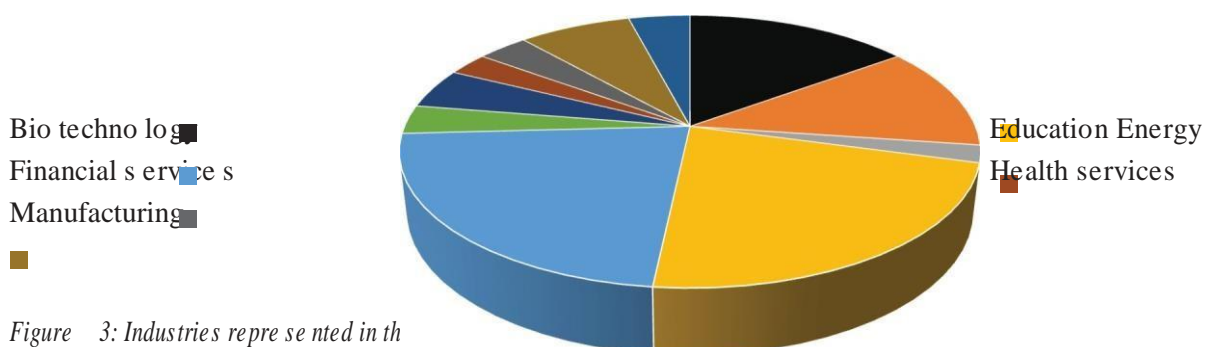


Figure 3: Industries represented in the study

Breaking out three indicators and comparing mean values for responses from Public and Private sector displays differences regarding formal and informal collaboration, and the aspect of mutual respect and trust in collaborative work, when working in the pre-pandemic setting, see

Figure 4. Even though a notable difference in sample size for the two groups was observed, the result can still provide valuable information. Respondents to the survey working in the private sector are more likely to rate formal and informal collaboration, and the aspect of mutual respect and trust in collaboration, higher.

comparisons over industries

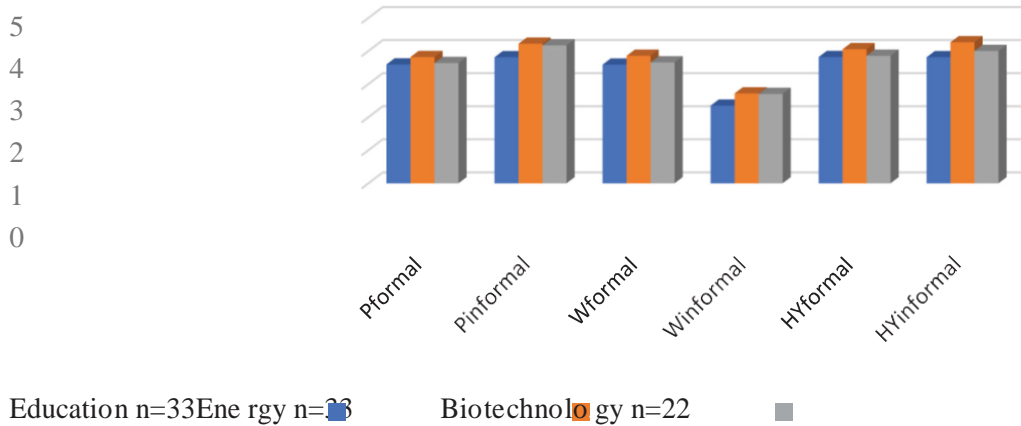


Figure 5: Comparison of formal and informal collaboration; mean values in three industries.

According to demographics, there are no significant differences in opinions on any work setting related to whether respondents have children or not. Similarly, there are no differences when studying differences in responses related to firm size.

Respondents are asked how their work is set up today. Today's work setups are displayed in Figure 6. Most work in a hybrid setting or at an office.

Respondent's work setup today

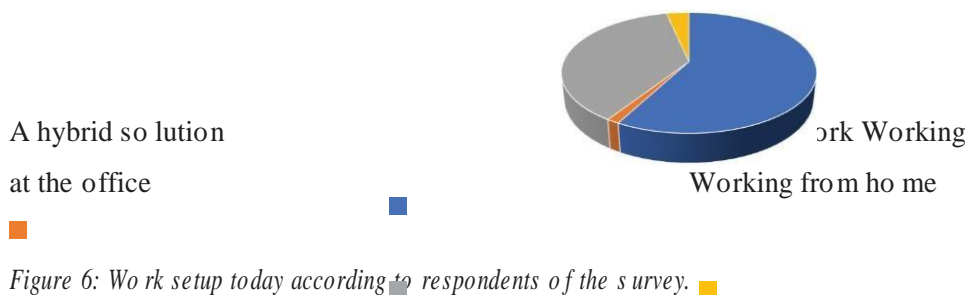


Figure 6: Work setup today according to respondents of the survey.

Regarding demography, results display a diversified sample of respondents to the survey. This makes it difficult to interpret or apply other results than displayed above to a specific industry, firm size, or any other demographic aspect. However, notable was that no vast differences was observed between respondent's residing in Sweden and USA which could have been anticipated due to differences in work culture (Cain 2017).



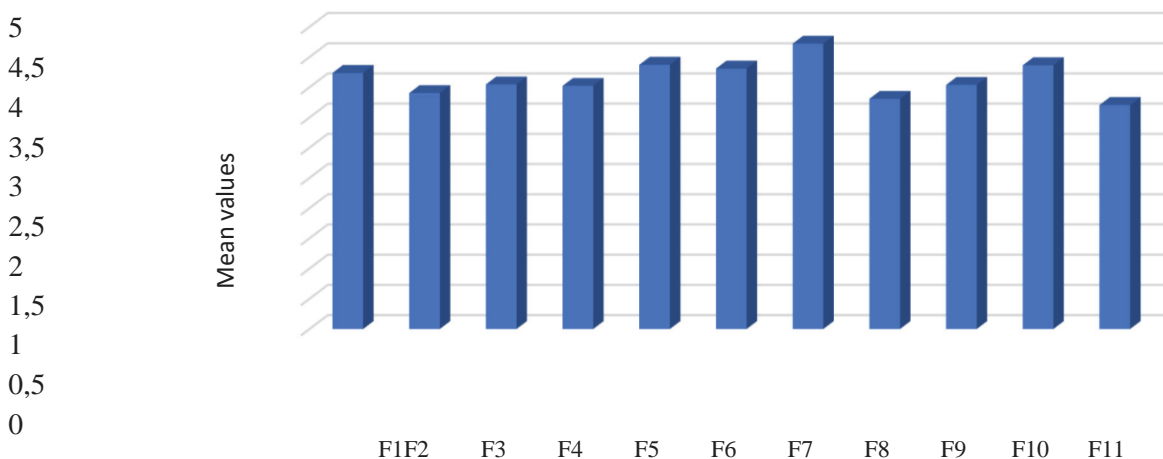
### 1.1. Descriptive statistics

Descriptive statistics for all indicators and latent variables are presented in Table

15 in Appendix A. A Swilk-test displays indicators measuring what generally influence collaboration, F1 – F11, which were non-normally distributed because p-values were under 0.05, while other indicators were a mix of both normally and non-normally distributed variables.

When assessing the indicators measuring what influences collaboration, presented in Figure 7, it was noted that F7, covering mutual respect and trust when collaborating was top rated. This was in line with studies concluding trust to be a main concern when collaborating (Harman 2008; Nielsen 2004). Results were also supported from the theory proposed by Mattesich and Monshey (1992) where factors for successful collaboration are presented. Other indicators regarded as particularly important when collaborating was F1, F5, F6, and F10. F1 covers face-to-face interactions fostering collaboration, supported by (Ceci et al. 2021). F5 covers setting clear goals when collaborating, supported by (Schöttle and Tillmann 2018). F6 surrounds developing competencies described by [www.wvdevelopment.org](http://www.wvdevelopment.org) (2023) as important in a successful team. Finally, F10 covers communication tools, described as important when collaborating (Oliveira et al. 2015).

Indicators F1 – F11, mean values



Indicators

Figure 7: Mean values of what respondents regard as important for collaboration, indicators F1 – F11.

A comparison of indicators for the three different work settings is presented in Figure

8. Notably, indicator 14, about how well communication tools offered functionality was higher rated in work from home setting than in pre-pandemic or hybrid setting. However, indicator 1, covering informal face-to-face interaction was rated lower for the work from home setting than in a pre-pandemic or hybrid setting.

Comparisons work settings, mean values

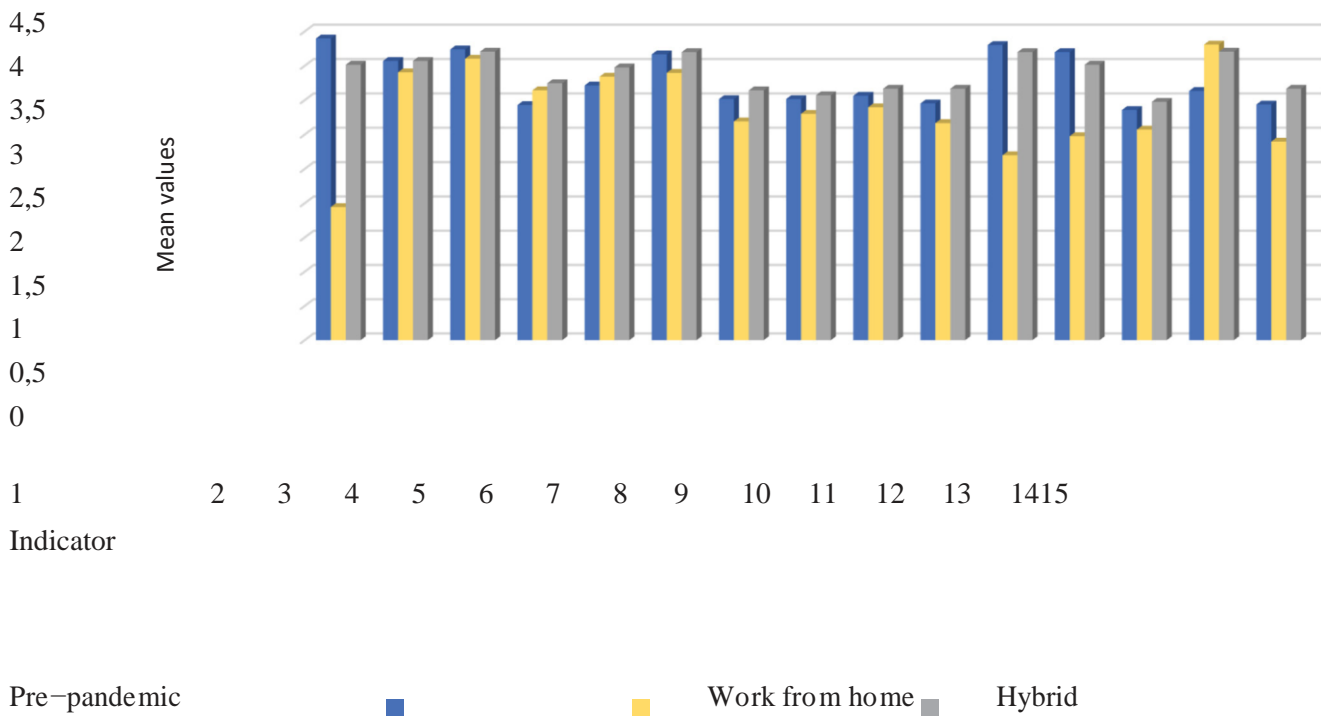


Figure 8: Mean values for all indicators for the different work settings.

When inspecting the dataset, correlations between indicators give useful information. In Table 16, Table 17, and Table 18 put in Appendix B, correlations between indicators are displayed. The higher the number, the more correlation between the indicators. There are obviously several indicators related to each other. Correlations partly support the latent variables created, as some indicators forming a latent variable also correlate. Causality can be the reason for higher ratings when changing from work from home to hybrid work setting. The high rating for the hybrid work setting can be caused by the less desired work from home setting.

## 1.2. Factor analysis

Factor analysis for the pre-pandemic setting, displayed in Table 4 retained four factors, resembling the latent variables created earlier. The KMO values, displaying the value from the Kaiser-Meyer-Olkin measure of sampling adequacy, displayed that all indicators were suited for factor analysis. The factor analysis stated that these four factors explained 62.31 % of the complete variance of the indicators constructing the model.

After comparing factors with the survey questionnaire, the factors were labelled. The first factor, labelled Management had high factor loadings on indicators P7 – P10. Notably the indicator P10 related to competence development had the greatest influence on this factor. Factor 2 covered indicators on informal collaboration. Indicators on spontaneous interactions were the most influential factor on informal collaboration in this work setting. In factor 3, labelled Respect, indicators P2 and P3 were at similar level. In the last factor with indicator 14 covering formal collaboration measuring effectiveness of communication tools had the highest influence.

Table 4: Factor analysis for pre-pandemic indicators : P1 - P15. Extraction method: Principal components factoring.

	Factor1	Factor2	Factor3	Factor4	
Indicator	Management	Informal	Respect	Formal	KMO
P1	0.236	0.730	-0.001	-0.188	0.678
P2	0.103	0.086	0.772	0.129	0.728
P3	0.185	0.254	0.761	0.087	0.770
P4	0.327	-0.096	0.301	0.601	0.768
P5	0.404	0.081	0.163	0.519	0.688

					0.5
P6	0.240	0.188	0.658	0.084	0.824
P7	0.807	0.089	0.166	0.032	0.891
P8	0.770	0.145	0.124	0.273	0.881
P9	0.810	0.031	0.204	0.031	0.802
P10	0.854	0.076	0.054	0.037	0.817
P11	0.143	0.788	0.264	-0.119	0.637
P12	-0.030	0.854	0.138	0.259	0.648

P13	0.125	0.232	0.128	0.540	0.672
P14	-0.038	-0.067	0.103	0.666	0.680
P15	0.487	0.347	-0.293	0.435	0.808

As the following SEM analysis required less indicators in relation to the study's sample size, the four factors retained, predicted four new variables, labelled PmanagementF, PinformalF, PrespectF, and PformalF. In each variable, all indicators were included but weighted according to the factor loadings. All indicators except P4, P5, and P15 could be included in SEM analysis because all other indicators display factor loadings above 0.5.

Factor analysis for the work from home setting, displayed in Table 5 retained four factors. The KMO values, displaying the value from the Kaiser-Meyer-Olkin measure of sampling adequacy, displayed that all indicators are suited for factor analysis. The factor analysis explained 61.82 % of the complete variance of the indicators building the model for the work from home setting.

The factors were labelled according to the structure from the survey questionnaire. The first factor, labelled Management had high factor loadings on indicators W7 – W10. W7 – W9 indicated similarly high influence on this factor. Factor 2 covers indicators on formal collaboration. Indicator on planned meetings generating collaboration was most influential on formal collaboration in this work setting. In factor 3, labelled Informal, indicators W11 and W12 were at a similarly elevated level. In the last factor covering mutual respect at the workplace, Indicator W3 had the highest influence.



Table 5: Factor analysis for indicators on work from home: W1 – W15. Extraction method: Principal components factoring.

	Factor 1	Factor 2	Factor 3	Factor 4	
Indicator	Management	Formal	Informal	Respect	KMO
W1	-0.140	0.179	0.458	-0.062	0.513
W2	0.077	0.040	0.157	0.838	0.561
W3	0.170	0.121	-0.064	0.855	0.630
W4	0.178	0.767	0.118	0.119	0.748
W5	0.241	0.791	0.113	0.043	0.755
W6	0.233	0.567	0.196	0.29	0.8

				6	8
					9
W7	0.839	0.171	0.138	0.027	0.083
W8	0.820	0.275	0.057	0.102	0.082
W9	0.829	-0.102	0.043	0.241	0.078
W10	0.779	0.276	0.089	0.024	0.087
W11	0.129	0.047	0.863	0.037	0.059
W12	0.115	0.140	0.848	0.080	0.060
W13	0.130	0.385	0.393	0.439	0.083
W14	0.001	0.429	-0.335	0.262	0.056
W15	0.280	0.388	0.128	-0.190	0.077

As the following SEM analysis required less indicators in relation to the study's sample size, the four factors retained, predicted four new variables, labelled WmanagementF, WformalF, WinformalF, and WrespectF. In each variable, all indicators are included but weighted according to the factor loadings. All indicators except W1R, W13, W14, and W15 could be included in SEM analysis because all other indicators display factor loadings above 0.5.

Factor analysis for the hybrid setting, displayed in Table 6 retained four factors. The KMO values, displaying the value from the Kaiser-Meyer-Olkin measure of sampling adequacy, indicated that all indicators are suited for factor analysis. The factor analysis states that four factors explained 66.58 % of the complete variance of the indicators building the model for the hybrid setting.

The factors were labelled according to the structure from the survey questionnaire. The first factor, labelled Management had high factor loadings on indicators HY7 – HY10. This factor is also influenced by indicators on formal meetings. Factor 2 covers indicators on formal collaboration in combination with indicators regarding mutual respect in collaborative work. HY2 and HY3 were the indicators most influential on this factor. In factor 3, labelled Informal, indicators HY1, HY11 and HY12 were at an elevated level. In the last factor, labelled Formal, indicator HY14 and HY15 had high influence.

Table 6: Factor analysis for indicators on hybrid work setting: HY1 – HY15. Extraction method: Principal components factoring.

	Factor1	Factor2	Factor3	Factor4	
Indicator	Management	Respect	Informal	Formal	KMO
HY1	0.075	0.083	0.760	0.143	0.765
HY2	0.176	0.704	0.205	0.143	0.828
HY3	0.171	0.716	0.227	0.029	0.807
HY4	0.545	0.494	0.089	0.035	0.899
HY5	0.578	0.461	0.152	0.180	0.818

					9 1
HY 6	0.315	0.591	0.28 4	0.1 60	0 . 8 7 6
HY 7	0.872	0.068	0.00 7	0.0 61	0 . 8 1 4
HY 8	0.828	0.204	0.10 7	0.1 32	0 . 8 9 8
HY 9	0.867	0.182	0.12 4	0.0 11	0 . 8 7 5
HY 10	0.731	0.074	0.08 1	0.3 39	0 . 8 7 3
HY 11	0.022	0.058	0.90 9	- 0.0 08	0 . 5 9 3
HY 12	0.183	0.255	0.79 6	0.0 50	0 . 7 3 1
HY 13	0.383	0.547	- 0.03 1	0.0 86	0 . 9 0 4
HY 14	-0.037	0.450	0.01 9	0.7 21	0 . 7 4 4
HY	0.331	-	0.10	0.7	0

15		0.069	1	95	.
					8
					2
					6

As the following SEM analysis required less indicators in relation to the study's sample size, the four factors retained, predicted four new variables, labelled HYmanagementF, HYrespectF, HYinformalF, and HYformalF. In each variable, all indicators were included but weighted according to the factor loadings. All indicators could be included in SEM analysis because all other indicators display factor loadings above 0.5.

Factor analysis for influencers on collaboration, displayed in Table 7 retained four factors. The KMO values, displaying the value from the Kaiser-Meyer-Olkin measure of sampling adequacy, displayed that all indicators are suited for factor analysis except the first indicator. The indicator was retained as KMO was close enough to 0.5 and nuances of the analysis could be missed if the first indicator was deleted (IBM Support 2020). The factor analysis stated that four factors explained 59.6 % of the complete variance of the indicators building the model.

The factors were labelled according to the structure from the survey questionnaire. The first factor, labelled Formal had high factor loadings on indicators F2 and F8 - F10. Factor 2 covers indicators on management's influence on collaboration. F3 and F4 were the indicators most influential on this factor. In factor 3, labelled Respect, indicators F6 and F7 were influential. In the last factor, labelled Informal, indicator F1 had high influence.

Table 7: Factor analysis for indicators that influence collaboration: F1 – F11. Extraction method:

	Factor 1	Factor 2	Factor 3	Factor 4	
Indicator	Formal	Management	Respect	Informal	KMO
F1	0.009	0.055	0.021	0.902	0.4251
F2	0.677	0.305	0.125	0.127	0.6815
F3	0.136	0.817	0.044	0.149	0.6162
F4	0.0	0.803	0.15	0.052	0.



	83		9		6
					4
					4
					8
F5	0.050	0.464	0.408	0.094	0
					7
					5
					6
					3
F6	0.066	0.215	0.705	0.018	0
					6
					9
					6
					5
F7	0.147	-0.041	0.805	-0.034	0
					6
					2
					7
					5
F8	0.633	-0.205	0.204	0.299	0
					6
					5
					4
F9	0.754	0.036	0.131	-0.078	0
					6
					8
					8
					4
F10	0.625	-0.026	0.279	-0.308	0
					6
					5
					0
					7
F11	0.108	0.221	0.414	0.438	0
					6
					6
					7
					5

As the following SEM analysis required less indicators in relation to the study's sample size, the four factors retained, predicted four new variables, labeled F<sub>formalF</sub>, F<sub>managementF</sub>, F<sub>respectF</sub>, and F<sub>informalF</sub>. In each variable, all indicators were included but weighted according to the factor

loadings. All indicators except F5, and F11 could be included in SEM analysis because all other indicators displayed factor loadings above 0.5.

SEM analysis

To examine how work settings are rated, four models were estimated in SEM. The first model estimates formal collaboration, the second informal collaboration, the third management's influence on collaboration, and finally the last model, estimating the role of mutual respect and trust on collaboration. Estimating a full model with all indicators from the original dataset does not generate a good model fit. Therefore, the predicted factor scores serve as indicators in SEM analysis (DiStefano et al. 2009).

Models are displayed in Appendix C, Figure 11 to Figure 14, and constructed around latent variables, representing collaboration in a work setting. Arrows point from the latent variable towards factor scores for work settings because the factor scores reflect the latent variable. Arrows were reversely directed towards the latent variable from the factor score representing what influence collaboration because the latent variable reflected what was deemed to influence the latent variable.

In formal collaboration, presented in Table 8, all relationships between work settings and formal collaboration were positive, meaning that if the variable influencing formal collaboration, FformalF, would increase, formal collaboration perceived in the work settings would also increase. The structural effect on formal collaboration from what influence formal collaboration FformalF was 0.208, meaning that if formal collaboration would increase by one unit, FformalF would increase by 0.208. This path was also significant, displaying a p-value of 0.005. As the p-value was significant, the indicator FformalF was a significant predictor of formal collaboration. The model has a p-value of 0.7115, displaying significance. Formal collaboration generated the greatest impact on the work from home setting followed by the pre-pandemic setting. All relationships are significant on a 0.05 level. The pre-pandemic setting was constrained and set to 1. This variable sets the scale for the rest of the coefficients.

Table 8: Result of SEM analysis for formal collaboration.

Formal collaboration	Coefficient	p
<b>Structural</b>		
Formal collaboration		
FformalF	0.208	0.005
<b>Measurement</b>		
Pre-pandemic		
formal collaboration	1	1
Work from home		
formal collaboration	1.201	0.012
Hybrid		

formal collaboration	0.7	0.0 17
LR, chi2 = 0.68	Prob > CHI2	0.7 115

In informal collaboration, presented in Table 9, all relationships between work settings and informal collaboration are positive except for work from home. This implies that if the rating on what influence informal collaboration increases, the rating on the work from home setting will decrease. The structural effect on informal collaboration from what influence informal collaboration  $F_{\text{informalF}}$  was 0.269, meaning that if informal collaboration would increase by one unit,  $F_{\text{informalF}}$  would increase by 0.269. This path was significant, displaying a p-value of 0.002. As the p-value was significant, the indicator  $F_{\text{informalF}}$  was a significant predictor of informal collaboration. The model was significant, displaying a p-value of 0.3241. Informal collaboration has the greatest impact on the hybrid work setting followed by the pre-pandemic setting. Both these relationships were significant on a 0.05 level, while the relationship between work from home and informal collaboration was non-significant. The pre-pandemic setting was constrained and set to 1. This variable sets the scale for the rest of the coefficients.

Table 9: Result of SEM analysis for informal collaboration.

Informal collaboration	Coefficient	p
<b>Structural</b>		
Informal collaboration		
$F_{\text{informalF}}$	0.269	0.002
<b>Measurement</b>		
Pre-pandemic		
Informal collaboration	1	1
Work from home		
Informal collaboration	-0.008	0.97
Hybrid		
Informal collaboration	1.129	0.007
LR, chi2 = 2.25	Prob >CHI2	0.3241

For management's influence on collaboration, presented in Table 10, all relationships between work settings and management's influence on collaboration are positive, meaning that if management's influence on collaboration is increased, the indicators in the model are also increased. The structural effect on management's influence on collaboration and what influence the same aspect of collaboration  $F_{\text{managementF}}$  was 0.21, meaning that if management's influence on collaboration would increase by one unit,  $F_{\text{managementF}}$  would increase by 0.21.

This path was also significant, displaying a p-value of 0.008. As the p-value is significant, the

indicator  $F_{\text{management}}$  is a significant predictor of this aspect of collaboration. The model is significant, displaying a p-value of 0.7998. The relationships between the work settings and management's influence on collaboration were alike. There were slight differences and the greatest impact on management's influence on collaboration was the hybrid work setting followed by the pre-pandemic setting. All relationships were significant on a 0.05 level. The pre-pandemic setting was constrained and set to 1. This variable sets the scale for the rest of the coefficients.

Table 10: Result of SEM analysis for how management influences collaboration.

Management's influence on collaboration	Coefficient	p
<b>Structural</b>		
Management's influence on collaboration		
$F_{\text{management}}$	0.21	0.008
<b>Measurement</b>		
Pre-pandemic		
Management's influence on collaboration	1	1
Work from home		
Management's influence on collaboration	0.988	0
Hybrid		
Management's influence on collaboration	1.018	0
LR, $\chi^2 = 0.45$	Prob > $\chi^2$	0.7998

For mutual respect and trust influencing collaboration, presented in Table 11, all relationships between work settings and this aspect of collaboration are positive. The structural effect on mutual respect and trust influencing collaboration and what influence the same aspect of collaboration  $F_{\text{respect}}$  is 0.108, though not significant at a 0.05-level. The model displays a significant p-value at 0.4455. The relationships between the work settings and mutual respect and trust influencing collaboration are alike. There were slight differences and the greatest impact on mutual respect and trust influencing collaboration was the work from home setting followed by the hybrid setting. All relationships were significant on a 0.05 level. The pre-pandemic setting was constrained and set to 1. This variable sets the scale for the rest of the coefficients.

Table 11: Result of SEM analysis for how mutual respect and trust influence collaboration.

The influence of mutual respect and trust on collaboration	Coefficient	p
<b>Structural</b>		
The influence of mutual respect and trust on collaboration		
Respect	0.108	0.091
<b>Measurement</b>		
Pre-pandemic		
The influence of mutual respect and trust on collaboration	1	1
Work from home		
The influence of mutual respect and trust on collaboration	1.287	0
Hybrid		
The influence of mutual respect and trust on collaboration	1.082	0
LR, $\chi^2 = 1.62$	Prob > $\chi^2$	0.4455

Table 12 displays the fit indices provided by Stata. All models exhibited acceptable values for all fit indices where  $p > \chi^2$  is above 0.05, RMSEA is below 0.08, CFI is close to 1, TLI is above 0.95, and SRMR is below 0.05.

Table 12: Fit indices for the SEM models.

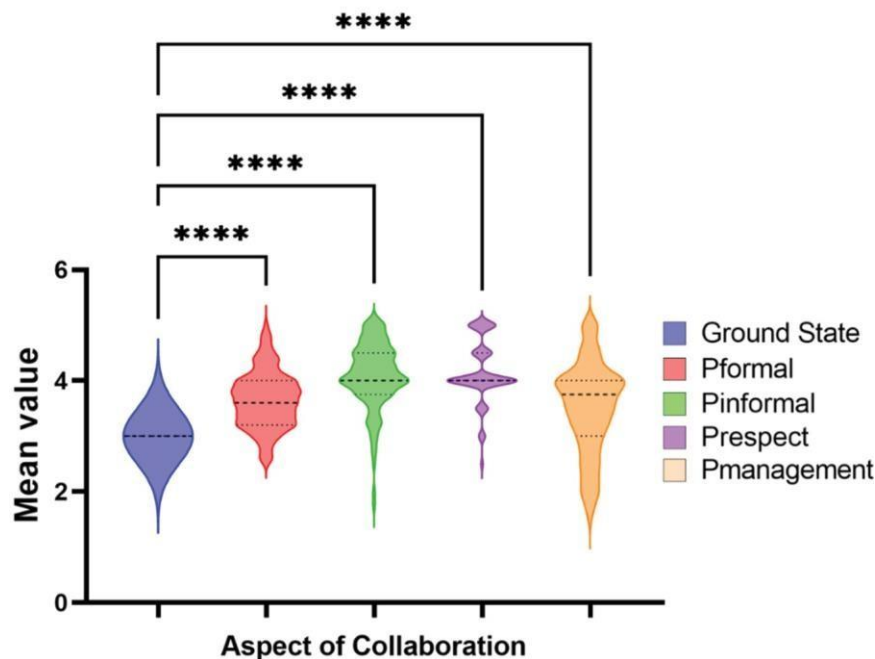
Model	$p > \chi^2$	RMSEA	CFI	TLI	SRMR
Formal collaboration	0.711	0	1	1.16	0.018
Informal collaboration	0.324	0.032	0.991	0.974	0.034
Management's influence on collaboration	0.8	0	1	1.02	0.009
The influence of mutual respect and trust on collaboration	0.445	0	1	1.014	0.024

				3	
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## Statistical test

The indicators covering the same aspects of collaboration were combined into latent variables, as described in the method section. The estimated internal consistency of latent variables, Cronbach's Alpha, indicates internal consistency with values over the threshold of 0.7, except for the latent variable measuring informal collaboration in work from home setting, Winformal. A probable cause for the low value is that the indicators included in Winformal do not correspond to the latent variable good enough. All estimates for Cronbach's Alpha can be found in Table 19 in Appendix D.

## Collaboration pre-pandemic vs. ground state



When testing significant differences between latent variables in different work settings, Anova tests were conducted. Full results from the Anova test are displayed in Table 20 in Appendix E. To evaluate how the respondents perceive the pre-pandemic state, a one-way Anova test was conducted against a –Ground State|| set to 3, neutral, on the Likert scale, presented in Figure 9. It is clearly observed that latent variables in the pre-pandemic work setting are significantly higher than the ground state. In addition, greatest differences were detected for Prespect and Pinformal with mean values of 4.15 and 4.08, respectively. As two latent variables on pre-pandemic collaboration; Pformal and Pmanagement not being normally distributed, the Wilcoxon Signed-Rank tests were conducted to support the Anova tests. The Wilcoxon Signed-Rank tests presented comparable results as the Anova tests, confirming all aspects of pre-pandemic collaboration as higher rated than the ground state. The Wilcoxon Signed-Rank test is displayed in Table 21 in Appendix F.



Figure 9: One-way Anova for latent variables in the pre-pandemic setting in relation to the ground state. The results are further used to support and enable more solid conclusions when

statistical analyses are performed on the latent variables of collaboration.

When testing significant differences between pre-pandemic setting and the two other settings, visualized in Figure 10, one-way Anova test displays the significant differences regarding formal collaboration between the hybrid setting and the pre-pandemic setting, and regarding informal collaboration between pre-pandemic setting and work from home setting. No other significant differences could be found.

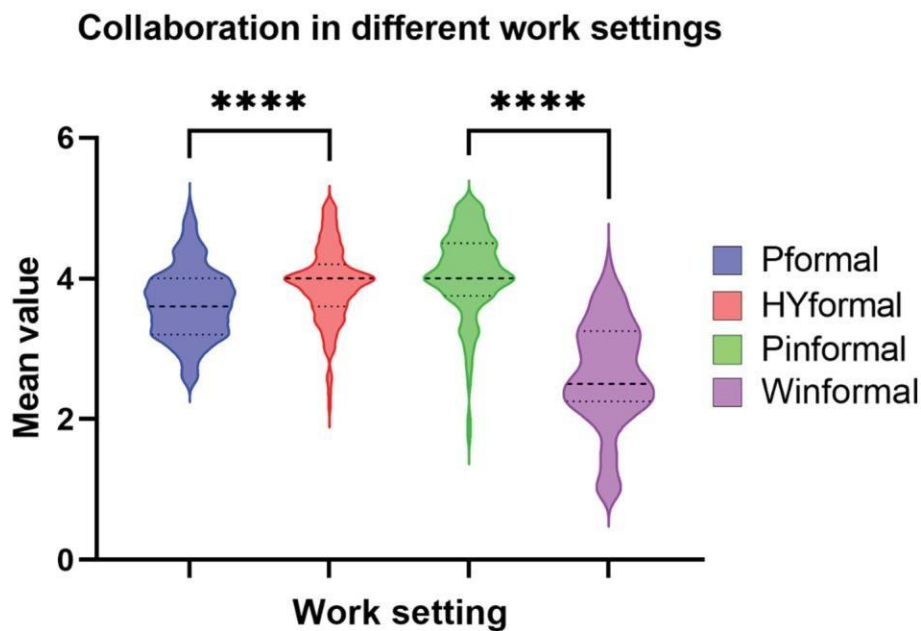


Figure 10: Significant differences for collaboration in the three work settings, according to one-way Anova.

To examine further, Anova tests are conducted on individual indicators, to determine if any indicator influences the results of Anova test on latent variables more than others. The results are presented in Table 20 in Appendix E. Notable results are the major and significant differences between indicators regarding communication tools for pre-pandemic and hybrid setting, and informal face-to-face interaction for pre-pandemic and work from home setting.

The Wilcoxon Signed-Rank Test compares the difference between two samples. The columns Positive ranks and Negative ranks state the number of responses in favor for the first and second variable in the comparison. Ties state the number of responses rating the compared variables at the same level. Table 13 displays the results from the Wilcoxon Signed-Rank tests of latent variables. There are significant differences between all latent variables except for two. Notable differences can be found regarding informal collaboration between pre-pandemic setting and work from home setting and regarding informal collaboration between hybrid setting and pre-pandemic setting.

Pmanagement was in significant Wilcoxon Signed-Rank tests but were non-significant in the one-way Anova tests. An explanation for this can be Pmanagement is non-normally distributed. Non-normal data is better reviewed in tests utilizing median values, rather than mean values such as the Anova test, as described in the section covering methodology.

Table 13: Results from the Wilcoxon Signed-Rank Test comparing latent variables.

	Positive ranks	Negative ranks	Ties	p-value
Comparison	n	n		
Pformal vs. Wformal	43	59	24	0.0619
Pformal vs. HYformal	27	80	19	0
Pinformal vs. Winformal	106	6	14	0
Pinformal vs. HYinformal	60	33	33	0.0068
Pmanagement vs. Wmanagement	67	24	35	0
Pmanagement vs. HYmanagement	35	56	35	0.0142
Prespect vs. Wrespect	43	17	66	0.001
Prespect vs. HYrespect	32	21	73	0.2229

### 1.3. Correlation extroverted personality trait

A correlation matrix, visualized in Table 14, displays no correlation between latent variables regarding aspects of collaboration in different work settings and the extroverted personality trait. Therefore, it does not serve any purpose to perform regression. A reason for this could be that only 33 of 126 respondents labelled themselves as introverts. Respondents are considered introverted if the y score below 4 on the extroverted personality trait, TSCORE. 4 is equal to –neither agree, nor disagree in the survey.

Table 14: Correlation between TSCORE and latent variables for different work settings.

	TSCORE		TSCORE		TSCORE
TSCORE	1.000	TSCORE	1.000	TSCORE	1.000
Pformal	0.177	HYformal	0.093	HYformal	0.093
Pinformal	0.190	HYinformal	0.049	HYinformal	0.049
Prespect	0.053	HYrespect	0.174	HYrespect	0.174
Pmanagement	0.245	HYmanagement	0.127	HYmanagement	0.127

## FINDINGS

### Remote Team Management Challenges :

Communication barriers were identified as the most prominent challenge, followed by monitoring and accountability issues.

Strategies for addressing these challenges included regular virtual meetings, utilizing collaboration tools, and implementing clear communication protocols.

Opportunities in managing remote teams included increased flexibility for employees, access to a wider talent pool, and potential cost savings.

### On-site Team Management Challenges:

Overreliance on traditional hierarchical structures emerged as a significant challenge, along with limited flexibility and adaptability.

To overcome these challenges, respondents highlighted the importance of fostering a culture of innovation, empowering employees, and implementing agile work practices.

Opportunities in managing on-site teams within a hybrid work environment included strengthening team cohesion, facilitating face-to-face collaboration, and promoting a healthy work-life balance.

### Hybrid Workforce Management Strategies :

Strategies for integrating remote and on-site teams included leveraging technology for virtual collaboration, implementing flexible work policies, and promoting cross-functional teamwork.

Respondents emphasized the importance of setting clear performance metrics, providing training on remote work tools, and fostering open communication channels to support hybrid workforce management.

### General Perception of Hybrid Workforce Management:

Overall, respondents rated the effectiveness of hybrid workforce management as somewhat effective, citing both successes and areas for improvement.

Suggestions for improvement included enhancing communication channels, providing more comprehensive training on remote work practices, and refining performance evaluation processes.

### Additional Comments :

Some respondents expressed concerns about maintaining team cohesion and company culture in a hybrid work environment.

Others highlighted the need for ongoing support and resources for remote employees, such as mental health initiatives and virtual team-building activities.

Several respondents emphasized the importance of leadership visibility and support in navigating the challenges of hybrid workforce management.

These findings provide insights into the challenges and opportunities of managing remote and on-site teams within a hybrid work environment, as perceived by stakeholders within the organization. They can inform decision-making and guide the implementation of strategies to optimize hybrid workforce management practices.

## RECOMMENDATION

Based on the findings of the comparative analysis of managing remote and on-site teams within a hybrid work environment, the following recommendations are proposed to enhance hybrid workforce management:

**Invest in Technology:** Organizations should invest in robust communication and collaboration tools to facilitate seamless interaction between remote and on-site teams. This includes video conferencing platforms, project management software, and virtual collaboration tools to ensure effective communication and coordination across dispersed teams.

**Foster a Culture of Inclusion:** Promote a culture of inclusivity and belonging by actively involving remote employees in team activities and decision-making processes. Encourage open communication, celebrate team achievements, and provide opportunities for remote employees to showcase their contributions to the organization.

**Provide Comprehensive Training:** Offer comprehensive training programs to equip both managers and employees with the skills and tools needed to thrive in a hybrid work environment. This includes training on remote work best practices, effective communication techniques, and virtual collaboration tools to ensure that all team members are equipped to succeed in their roles.

**Establish Clear Performance Metrics:** Define clear performance metrics and expectations for remote and on-site teams to ensure accountability and alignment with organizational goals. Regularly review performance metrics and provide feedback to team members to support their professional development and growth.

**Promote Work-Life Balance:** Prioritize employee well-being by promoting work-life balance and flexibility in work arrangements. Offer flexible scheduling options, provide resources for managing stress and burnout, and encourage employees to take breaks and disconnect from work when needed to recharge.

**Encourage Social Interaction:** Foster opportunities for social interaction and team bonding activities to build rapport and camaraderie among remote and on-site team members. This can include virtual team-building exercises, virtual coffee breaks, and social events to help strengthen team cohesion and morale.

**Lead by Example:** Leadership should lead by example by embracing hybrid work practices and actively supporting remote and on-site team members. Demonstrate flexibility, accessibility, and empathy in leadership communication and decision-making to build trust and confidence among team members.

**Continuously Evaluate and Adapt:** Regularly evaluate the effectiveness of hybrid workforce management strategies and adapt them as needed based on feedback and evolving organizational needs. Stay informed about emerging trends and best practices in hybrid work management to ensure that the organization remains agile and responsive to changing circumstances.

## CONCLUSION

The hybrid work model presents a complex landscape for managers, demanding a thoughtful approach to bridge the gap between remote and on-site teams. While challenges exist in fostering communication, maintaining culture, and ensuring fairness, the opportunities for employee satisfaction, talent acquisition, cost reduction, and even productivity are significant. By embracing technology, establishing standardized processes, promoting inclusivity, and equipping managers with the necessary skills, organizations can create a thriving hybrid work environment that unlocks the full potential of a geographically dispersed workforce. As the future of work unfolds, mastering the art of managing a hybrid team will be a key differentiator for organizational success.

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## APPENDICES

### QUESTIONNAIRE

1. What gender do yo u identify as ?
  - Fe male
  - Male
  - No n-binary
  - Other, please specify:
  - Prefer no t to s ay
2. What is yo ur age?
  - 18 to 24 ye ars old
  - 25 to 34 ye ars old
  - 35 to 44 ye ars old
  - 45 to 54 ye ars old
  - 55 to 64 ye ars old
  - 65 to 74 ye ars old
  - 75 o r olde r
  - Prefer no t to s ay
3. Please specify yo ur e thnicity.
  - White or Caucasian
  - Black or African-American



- Asian or Pacific Islander
  - Latino or Hispanic
  - Other, please specify:
  - Prefer not to say
4. Where do you currently reside?
- Sweden
  - Europe (*not Nordic countries*)
  - Nordic countries (*not Sweden*)
  - USA
  - North America/Central America (*not USA*)
  - South America
  - Africa
  - Asia
  - Oceania
  - Other, please specify:
  - Prefer not to say
5. How many children do you have?
- None
  - 1
  - 2-4
  - More than 4
  - Prefer not to say
6. Are you married or live in cohabitation (*samboförhållande*)?
- Yes
  - No
  - Prefer not to say

#### Work related

7. What is the highest degree or level of education you have completed?
- Some High School
  - High School/GED
  - Some College

- Associate Degree
- Bachelor's Degree
- Master's Degree
- Ph.D. or Higher
- M.D. or Higher
- Trade School
- Other, please specify:
- Prefer not to say

8. What is your employment status ?

- Employed Full-time
- Employed Part-time
- Seeking opportunities
- Retired
- Other, please specify:
- Prefer not to say

9. Which of the following best describes your role in the industry?

- Entry level
- Hourly employee
- Intern
- Manager
- Owner/sole proprietor
- President or CEO
- Salaried employee
- Scientist
- Student
- Other, please specify:
- Prefer not to say

10. The organization you work for is in which of the following:

- Public sector (e.g., government)
- Private sector (e.g., most businesses and individuals)
- Not-for-profit sector
- Other

- Prefer not to say
11. What is the size of the organization you work for?
- 1-10 employees
  - 11-50 employees
  - 51-100 employees
  - 101-500 employees
  - 501-1000 employees
  - 1001-5000 employees
  - 5001+ employees
  - Prefer not to say
  - N/A
12. What industry does your organization operate in?
- Advertising & Marketing
  - Airlines & Aerospace
  - Biotechnology
  - Chemical industries
  - Construction
  - Defense
  - Education
  - Financial services; professional services
  - Forestry; wood; pulp and paper
  - Government
  - Health services
  - Hotel & Food/Beverage Services
  - Insurance
  - Legal Services
  - Manufacturing
  - Mechanical and electrical engineering
  - Mining (coal; other mining)
  - Non-profit
  - Oil and gas production; oil refining

- Real estate
- Retail
- Seeking opportunities
- Software engineering
- Transportation & Delivery
- Utilities (water; gas ; electricity)
- Other, please specify:
- Prefer not to say

Working situation		1	o
s	13. Did you work from home during the COVID-19 pandemic?	y	f
	• Yes	o	f
	• No	u	i
	14. How much time on average did you work from home before the COVID-19 pandemic (before 2020)?	r	c
	• 0% (almost nothing)	•	e
	• 1 – 25%	W	o
	• 26 – 50%	w	r
	• 51 – 75%	o	k
	• 76 – 100%	r	i
	• Sorry I do not remember	k	n
	15. How much time on average did you work from home during the COVID-19 pandemic (2020 – 2022)?	s	g
	• 0 – 25%	e	m
	• 26 – 50%	t	o
	• 51 – 75%	u	s
	• 76 – 100%	p	t
	• Remote work from various locations, outside the office	•	l
	• A hybrid solution: a mix of different work setups (both at the office and remote)	?	y
	16. H	W	f
	o	o	r
	w	r	k