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IMPACT OF REMOTE WORK ON CROSS-CULTURAL TEAM DYNAMICS IN THE OIL & GAS FIRMS IN RIVERS STATE

By

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ABSTRACT

The study examined how remote work affects cross-cultural team dynamics in Rivers State's oil and gas firms, with a sample size of 346 drawn from a population of 3,524 employees using simple random sampling. Data was collected through structured questionnaires, and Spearman's rank correlation coefficient was employed to analyze the relationship between remote work dimensions (work environment and digital skills) and cross-cultural team dynamics. The findings indicated a significant positive relationship between remote work factors and team dynamics. The study concludes that investing in supportive work environments, enhancing digital skills, and promoting collaborative projects are crucial for improving cross-cultural team dynamics in these firms. The study recommends investing in a supportive work environment and promoting collaborative digital projects to strengthen team cohesion and productivity.

Keywords: Remote Work, Work Environment, Digital Skills, Cross-Cultural Team Dynamics, Team Productivity, Team cohesiveness.

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INTRODUCTION

Cross-cultural team dynamics are critically important in today's globalized work environment, especially in industries like the oil sector, which involve diverse teams operating in complex and challenging contexts. Understanding and managing these dynamics can significantly enhance innovation and creativity. Diverse teams bring together individuals with various backgrounds, experiences, and viewpoints, leading to more creative solutions and innovative approaches to problem-solving (Paulus et al., 2016). This diversity fosters cognitive flexibility, encouraging team members to think more adaptively and creatively (Don-Solomon & Fakidouma, 2021). Cross-cultural team dynamics are essential for fostering innovation, improving decision-making, enhancing market competitiveness, and ensuring employee satisfaction.

Effective problem-solving and decision-making are also benefits of well-managed cross-cultural teams. These teams consider a wider array of possible solutions when faced with challenges, resulting in more comprehensive decision-making processes (Stahl & Tung, 2015). The tendency of cross-cultural teams to question assumptions and avoid groupthink further enhances critical thinking, leading to better outcomes (Lisak & Erez, 2016). Increased market competitiveness is another significant advantage. Teams that understand different cultural contexts are better equipped to operate in international markets, leading to more effective marketing strategies and business operations. This cultural understanding allows companies to adapt their strategies to fit regional needs, improving their competitive edge (Kirkman et al., 2017).

Cross-cultural team dynamics also enhance employee satisfaction and retention. An inclusive workplace culture that promotes cross-cultural understanding and respect enhances job satisfaction and reduces turnover (Maj, 2023). Employees feel valued and respected when their cultural backgrounds are acknowledged, leading to personal and professional growth as they learn to navigate different cultural norms (Ng & Sears, 2017).Effective conflict resolution is another critical benefit. Understanding cultural differences helps anticipate and resolve conflicts more effectively, as teams equipped with cross-cultural awareness can manage misunderstandings and disagreements constructively (Kirkman et al., 2017). Improved communication skills, developed through cross-cultural interactions, foster a more collaborative and harmonious work environment (Mor Barak, 2014).

Organizational agility and resilience are also enhanced by cross-cultural team dynamics. Organizations with diverse teams are more adaptable and resilient in the face of change, drawing on a broad range of experiences and perspectives to navigate uncertainties and adapt to new challenges (Duchek, et al., 2019). As remote work becomes more prevalent, the ability to work effectively in cross-cultural teams is essential for maintaining productivity and collaboration across different time zones and geographical locations (Larson & DeChurch, 2020). The advent of remote work has revolutionized various industries, including the oil sector in Rivers State, Nigeria. Traditionally characterized by its reliance on on-site operations, the oil sector has had to adapt rapidly to the increasing necessity and advantages of remote work. This transition, accelerated by technological advancements and recent global events such as the COVID-19 pandemic, has not only influenced operational efficiencies but also reshaped team dynamics, particularly in cross-cultural contexts (Choudhury et al., 2021; Wang, et al., 2020).

Rivers State, a pivotal region in Nigeria's oil production, is home to a diverse workforce comprising individuals from various cultural backgrounds. As companies adopt remote work

models, the interactions among team members from different cultural milieus have undergone significant transformations. The physical distance imposed by remote work presents both challenges and opportunities in managing cross-cultural teams. On one hand, it offers flexibility and access to a broader talent pool; on the other hand, it necessitates new strategies to maintain cohesion, communication, and collaboration among team members who may have different cultural norms and work practices (Nakrošiene, et al., 2019; Lisak, 2016).

Several studies (Maruyama et al., 2009; Lisak, 2016; Stahl & Tung, 2020; Nakrošiene, et al., 2019; Duchek, et al., 2019) has been made on remote work and team dynamic respectively. But the dearth of empirical work on remote work influence of cross-cultural dynamic in the oil sectors, motivates this study. The study will bridge the observed gap and examination bring better understanding of the implications of remote work on the oil sector and develop strategies to enhance the effectiveness and harmony of cross-cultural teams in this industry.

STATEMENT OF THE PROBLEMS

The adoption of remote work often presents both opportunities and challenges for cross-cultural team dynamics. While remote work offers flexibility and access to a diverse talent pool, it also introduces complex issues that need to be addressed to ensure effective team functioning and productivity (Choudhury, 2021; Wang, 2020). Communication barriers are a significant issue, as remote work relies heavily on digital tools, which often lead to misunderstandings and difficulties in building trust, especially among culturally diverse team members (Alkoud et al., 2023). Physical distance alsohinder team cohesion and a sense of belonging, further complicated by differing cultural norms and work practices.

Conflict resolution is another challenge, with cultural differences in communication and conflict management styles potentially escalating conflicts if not properly addressed (Anh Tho, 2021). Ensuring cultural sensitivity and fostering inclusivity are crucial, yet remote work can make recognizing and addressing cultural nuances more difficult (Garrick, 2024). Effective leadership is essential in managing remote, cross-cultural teams. Leaders often fail to navigate cultural differences, ensure effective communication, and build trust in a virtual environment, and this inadequate leadership often lead to disengagement and decreased performance (Batista, 2022). Additionally, technological disparities and varying levels of digital literacy create inequities within teams, hindering communication and collaboration (Wang et al., 2020).

The blurred boundaries between personal and professional life in remote work settings often negatively impact work-life balance and mental health, with these issues being more pronounced in cross-cultural teams due to differing expectations regarding work hours and availability (Maruyama & Tietze, 2012). Assessing productivity and performance in remote teams is also challenging, as traditional metrics may not accurately capture the complexities of remote work dynamics (Nakrošiene, 2019). Addressing these problems is crucial for harnessing the benefits of remote work while mitigating its challenges and understanding and tackling these issues, can improve cross-cultural team dynamics, enhance productivity, and foster a more inclusive and effective remote work environment.

Aim and Objectives of the Study

The aim of this study is to examine theimpact of remote work on cross-cultural team dynamics in the oil and gas firms in Rivers State. The specific objectives are to:

1. Determine the association between work environment and team productivity in the oiland gas firms in Rivers State.
2. Examine the association between work environment and team cohesiveness in the oiland gasfirms in Rivers State.
3. Determine the association between digital skills and team productivity in the oil and gas firms in Rivers State.
4. Examine the association between digital skills and team cohesiveness in the oil and gas firms in Rivers State.

Research Questions

1. What is the association between work environment and team productivity in the oil and gas firms in Rivers State?
2. How does work environment relate with team cohesiveness in the oil and gas firms in Rivers State?
3. What is the relationship between digital skills and team productivity in the oiland gas firms in Rivers State?
4. How does digital skills relate with team cohesiveness in the oiland gas firms in Rivers State?

Research Questions

Ho_1: There is no significant relationship between work environment and team productivity in the oil firms in Rivers State.

Ho_2: There is no significant relationship between work environment and team cohesiveness in the oil firms and gas in Rivers State.

Ho_3: There is no significant relationship between digital skills and team productivity in the oil and gas firms in Rivers State.

Ho_4: There is no significant relationship between digital skills and team cohesiveness in the oil and gas firms in Rivers State.

SOCIAL IDENTITY THEORY

Social identity theory, developed by Henri Tajfel and John Turner, offers valuable insights into the impact of remote work on cross-cultural team dynamics. This theory posits that individuals derive their sense of identity and self-esteem from their membership in social groups, such as work teams (Tajfel & Turner, 2003). In the context of remote work, this can lead to in-group favouritism and out-group discrimination, where team members may gravitate towards colleagues from similar cultural backgrounds. Such dynamics can be exacerbated by physical separation in remote work, reducing opportunities for informal interactions that bridge cultural divides and potentially leading to cliques and decreased overall team cohesion. Regular virtual team-building activities and inclusive communication practices can help develop a unified team identity, mitigating these risks.

Applying social identity theory to remote cross-cultural teams highlights the importance of fostering a strong, inclusive team identity. Leaders can promote team cohesion by emphasizing common goals and values, which can mitigate the negative effects of in-group and out-group dynamics. Recognizing the role of social identities in conflict can guide the development of strategies for effective conflict resolution and communication. By leveraging this theory, oil firms can create a more cohesive and collaborative remote work environment,

enhancing team dynamics and fostering a more inclusive and productive workplace, thereby addressing the unique challenges posed by remote work in cross-cultural settings.

REMOTE WORK

Remote work, also known as telecommuting, has become an integral part of modern organizational practices, particularly following the global COVID-19 pandemic. This mode of work allows employees to perform their job duties from locations outside of traditional office environments, primarily relying on digital communication tools and technologies (Wang, 2020). The rapid adoption of remote work has been driven by advancements in technology and a growing recognition of its benefits, including increased flexibility, reduced commute times, and the potential for a better work-life balance (Bloom, 2015).

One significant advantage of remote work is its ability to provide employees with greater autonomy and flexibility, which can enhance job satisfaction and productivity. Studies have shown that remote work can lead to higher levels of job satisfaction due to the flexibility it offers, allowing employees to better manage their personal and professional responsibilities (Allen et al., 2015). Additionally, remote work can expand the talent pool for organizations, enabling them to hire employees from diverse geographic locations without the constraints of physical proximity (Wang et al., 2021). This can be particularly beneficial for industries requiring specialized skills that may not be readily available locally.

However, remote work also presents several challenges that need to be addressed to ensure its effectiveness. Communication and collaboration can be hindered in a remote work environment, especially when team members are spread across different time zones and cultural backgrounds. Effective use of digital communication tools and the establishment of clear communication protocols are essential to mitigate these challenges (Albuali, 2021). Furthermore, remote work can blur the boundaries between work and personal life, potentially leading to burnout and decreased mental health if not managed properly. Organizations must therefore implement strategies to support employees' well-being and work-life balance, such as promoting regular breaks and encouraging the use of flexible working hours.

Work Environment

The work environment, encompassing physical, psychological, and social conditions, significantly impacts employee satisfaction, productivity, and overall well-being. The physical aspect includes office layout, furniture, lighting, temperature, and equipment. An ergonomic and well-designed workspace enhances comfort and reduces the risk of work-related injuries, leading to higher productivity and job satisfaction (Chua et al., 2016). The psychological environment involves factors such as job security, workload, work-life balance, and stress levels. Supportive management practices, recognition of achievements, and opportunities for professional growth contribute to a positive psychological work environment. Addressing mental health issues and providing resources such as counselling services can also significantly improve employees' well-being and productivity (Zhenjing et al., 2022).

The social work environment includes interpersonal relationships and social dynamics within the workplace. Positive relationships with colleagues and supervisors, effective communication, and a collaborative culture are essential components of a healthy social environment. Team-building activities, open communication channels, and inclusive policies that promote diversity and equity enhance social cohesion and foster a supportive atmosphere

(Fapohunda, 2013). A well-managed work environment positively influences employee productivity and job satisfaction. Employees in supportive and comfortable environments are more motivated and engaged, leading to higher performance levels (Knight & Haslam, 2010). Conversely, a negative work environment with high stress, poor communication, and lack of support can lead to burnout and high turnover rates. Investing in a positive work environment benefits employee and enhances overall organizational performance and success (Kurniawaty et al., 2019).

Digital Skills

Digital skills refer to the ability to use digital technologies, communication tools, and networks to access, manage, integrate, evaluate, and create information to function effectively in a knowledge society. As the digital landscape continues to evolve, these skills have become essential for both individuals and organizations, impacting various aspects of work, education, and daily life (van Laar et al., 2017). The importance of digital skills in the modern workplace cannot be overstated. Digital proficiency enhances productivity and efficiency by enabling employees to navigate complex technological environments and adapt to new tools and platforms. For example, employees skilled in data analytics, project management software, and cybersecurity protocols significantly contribute to their organization's success (Bughin et al., 2018). Furthermore, the ability to hire employees from diverse geographic locations, unrestricted by physical proximity, is a significant advantage for organizations seeking specialized skills (Wang, 2021).

Beyond workplace competence, digital skills are crucial for driving economic development and innovation. Countries and organizations that invest in digital skills development are better positioned to compete in the global market. The European Commission's Digital Economy and Society Index (DESI) highlights the correlation between digital skills and economic performance, indicating that countries with higher digital skill levels tend to have stronger economies (European Commission, 2020). Additionally, digital literacy supports lifelong learning and personal growth. Individuals with strong digital skills can access a wealth of information, resources, and educational opportunities online, enhancing their knowledge and capabilities (Park, Kim, & Jang, 2020). Digital skills also play a vital role in promoting social inclusion by enabling individuals to participate fully in society. These skills help bridge the digital divide, ensuring more people can access information, services, and opportunities available online. Initiatives aimed at improving digital literacy among marginalized groups help reduce inequalities and promote social inclusion (van Dijk & Reynolds, 2020).

CROSS-CULTURAL TEAM DYNAMICS

Cross-cultural team dynamics involve the interactions, behaviours, and processes that occur when team members from different cultural backgrounds work together, significantly impacting team performance, cohesion, and overall success. Recognizing cultural differences in communication styles, work habits, and attitudes towards hierarchy, time, and teamwork is crucial for fostering effective collaboration (Hofstede, 2011). Training sessions to increase cultural awareness and sensitivity among team members are essential (Thomas & Peterson, 2018). Addressing language barriers and being aware of nonverbal cues can help mitigate misunderstandings (Ting-Toomey & Chung, 2012). Inclusive leadership that values diverse perspectives and promotes respect and trust is vital, and leaders must be adaptable to suit the cultural preferences of their team members.

Proactive conflict management encourages open dialogue and addresses conflicts constructively, with cultural mediation as a potential solution for misunderstandings (Al Kiyumi, 2023). Building trust through team-building activities and fostering open communication can unite team members, while establishing clear, shared goals provides a common purpose. Inclusive decision-making involves all team members and values diverse input, considering different cultural preferences for consensus-based versus majority rule decision-making (Meyer, 2014). Providing culturally sensitive feedback and ensuring fair performance evaluations are crucial for maintaining team morale and fairness.

In remote and virtual teams, utilizing technology to bridge communication gaps and being mindful of time zone differences are important (Lilian, 2014). Understanding different cultural motivators and tailoring motivational strategies accordingly can enhance engagement, with recognition and reward systems that are culturally appropriate (Gelfand et al., 2007). Establishing a continuous feedback loop for learning from experiences and encouraging cultural exchange within the team can build mutual understanding and respect (Erez et al., 2013). Managing cross-cultural team dynamics effectively requires ongoing learning, empathy, and adaptability, enabling organizations to leverage diverse strengths and perspectives for greater innovation and success.

Team Productivity

Team productivity hinges on several critical factors that collectively influence the efficiency and effectiveness of a team's performance. Central to this is the establishment of clear goals and objectives that provide direction and purpose, aligning individual efforts with organizational missions (Arora et al.,2023). Effective communication plays a pivotal role in ensuring that team members are well-informed, fostering collaboration and reducing misunderstandings (Bucăţa, 2017). Strong leadership that guides, supports, and empowers team members is essential, cultivating an environment of trust and accountability (Northouse, 2018). Additionally, fostering team cohesion through relationship-building and mutual respect enhances collaboration, thereby optimizing collective efforts. However, motivating team members through recognition, incentives, and opportunities for growth fosters engagement and commitment, driving higher productivity.

Moreover, efficient resource management and strategic allocation of time, tools, and information are critical to streamline workflows and prevent bottlenecks (Ramachandran, 2023). Proactive conflict resolution strategies and a culture that encourages constructive feedback contribute to maintaining harmony and focus within the team (Rismayadi, 2024). Embracing continuous improvement through reflective practices and leveraging technological innovations further enhances productivity by optimizing processes and facilitating seamless collaboration (Davenport, 2013). By prioritizing these elements, organizations can create an environment conducive to sustained team productivity and achievement of collective goals.

TeamCohesion

Team cohesion is pivotal for enhancing collective performance and fostering a positive work environment. It encompasses several key factors: first, shared goals and a clear vision unite team members towards common objectives, aligning their efforts and promoting a sense of purpose (Vanhove & Herian, 2015). Effective communication plays a crucial role by facilitating transparency, understanding, and trust among team members, which in turn promotes collaboration and reduces conflicts (Bucăţa et al., 2017). Additionally, strong interpersonal relationships built on mutual respect and support contribute significantly to

cohesion, often strengthened through team-building activities and shared experiences (West, 2012).

Leadership also plays a vital role in nurturing team cohesion. Effective leaders inspire and guide their teams, fostering an environment where open communication and collaboration thrive (Hartfield et al., 2024). By establishing clear norms and values that govern team behaviour and expectations, organizations can further enhance cohesion, creating a supportive atmosphere where team members feel valued and motivated to contribute their best (Riisla et al., 2021). Ultimately, cohesive teams tend to perform better, experience higher job satisfaction, and exhibit greater resilience in the face of challenges, making cohesion a critical factor in achieving collective success.

Empirical Review

van Laar, et al., (2017) studied the relation between 21st-century skills and digital skills. The studyexplore the relationship between 21st-century skills and digital skills, and develop a framework for 21st-century digital skills with conceptual dimensions and key operational components for knowledge workers. A systematic review of 1592 articles were conducted, with 75 meeting the inclusion criteria.The findings reveal that 21st-century skills encompass a broader range than digital skills and are not necessarily dependent on information and communication technology (ICT). Seven core skills were identified: technical, information management, communication, collaboration, creativity, critical thinking, and problem-solving. Additionally, five contextual skills were highlighted: ethical awareness, cultural awareness, flexibility, self-direction, and lifelong learning.

Chua et al., (2016) investigate the significance of physical environmental comfort by assessing the existing workplace conditions and their impact on employee performance. The evaluation focuses on employees' perceived comfort, health, and absenteeism rates across selected case studies. The study examines elements of physical comfort, including room temperature, relative humidity, and illuminance levels. Field studies were conducted in three institutional buildings, specifically within the management departments. Results revealed strong correlations between room temperature, lighting, and relative humidity with health issues such as stuffiness, fatigue, and difficulty concentrating, all of which negatively affect employee productivity and work performance.

Umuteme & Adegbite (2023) explores the interaction between cross-cultural factors, organizational culture, path-goal leadership, and team effectiveness in Nigerian oil and gas projects. Using a quantitative approach that blends positivism and relativism, the research considers path-goal leadership and organizational culture as mediators. A survey was conducted with 230 participants (91.3% response rate) recruited judgmentally. Data analysis was performed using partial least square structural equation modeling. Findings indicate that high achievement and directive leadership styles foster a long-term orientation among workers, enhancing their adaptability to project environments. Organizational culture significantly shapes project settings in the industry.

METHODOLOGY

This study employed a cross-sectional survey design, focusing on the oil firms in Rivers State, Nigeria. The accessible population included 3524 employees of these oil and firms. A sample size of 346 was drawn using the Krejcie and Mogan 1970 table. Simple random sampling technique was used. Data collection was carried out through a structured

questionnaire measured on a 4-point Likert scale which ranges from 1 – 4. Where 1 = Strongly disagree, 2 = Disagree 3 = Agree and 4 = Strongly agree. The validity of the instrument in this study was ascertained using face and content validity and the Cronbach's Alpha was used to ascertain the reliability. The study adopted the threshold of 0.7 for the Cronbach's Alpha reliability. Spearman's rank correlation coefficient, was used to examine the relationship between the remote work and the measures of cross-cultural team dynamics.

RESULT

346 questionnaires were distributed, but 324 (93.6%) copies were returned and constitute the valid questionnaire. The hypotheses test is undertaken at a 95% confidence interval and the decision rule is stated below.

Where $P < 0.05$ = Reject the null hypotheses and Where $P > 0.05$ = Accept the null hypotheses

Table 1: Correlations between Work Environment and Measures of Cross-Cultural Team Dynamics

Correlations

			Work Environment	Team Productivity	Team Cohesiveness
Spearman's rho	Work Environment	Correlation Coefficient	1.000	.715**	.702**
		Sig. (2-tailed)	.	.000	.000
		N	324	324	324
	Team Productivity	Correlation Coefficient	.715**	1.000	.690**
		Sig. (2-tailed)	.000	.	.000
		N	324	324	324
	Team Cohesiveness	Correlation Coefficient	.702**	.690**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	324	324	324

Source: SPSS Output, 2024.

Work Environment and Team Productivity: The results in column five of Table 1 reveal a significant positive relationship between work environment and team productivity. The rho value of 0.715**, observed at a significance level of 0.000, is well below the alpha level of 0.05. As a result, the null hypothesis (Ho_1) is rejected, and the alternate hypothesis (Ha_1) is accepted. This indicates a strong positive association between work environment and team productivity.

Work Environment and Team Cohesiveness: The rho value in column six of Table 1, representing the relationship between work environment and team cohesiveness, is 0.702** with a significance level of 0.000, which is below the alpha level of 0.05 established for this analysis. Therefore, the null hypothesis (Ho_2), which posits no significant relationship between work environment and team cohesiveness, is rejected. Contrariwise, the alternate hypothesis is accepted, indicating a strong positive relationship between work environment and team cohesiveness.

Table 2: Correlations between Digital Skills and Measures Cross-Cultural Team Dynamics

Correlations

			Digital Skills	Team productivity	Team cohesiveness
Spearman's rho	Digital skills	Correlation Coefficient	1.000	.698**	.625**
		Sig. (2-tailed)	.	.000	.000
		N	324	324	324
	Team productivity	Correlation Coefficient	.698**	1.000	.615**
		Sig. (2-tailed)	.000	.	.000
		N	324	324	324
	Team cohesiveness	Correlation Coefficient	.625**	.615**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	324	324	324

Source: SPSS Output, 2024.

Digital Skills and Team Productivity: In Column 5 of Table 2, the rho value is 0.698** with a significance level of 0.000, which is below the alpha level of 0.05. Consequently, the null hypothesis (Ho_3) is rejected, and the alternate hypothesis (Ha_3) is accepted.

Digital Skills and Team Cohesiveness: In Column 6 of Table 2, the rho value is 0.625** with a significance level of 0.000, also below the alpha level of 0.05. Therefore, the null hypothesis (Ho_4), which asserts no significant association between digital skills and team cohesiveness, is rejected, and the alternate hypothesis is accepted.

DISCUSSION OF FINDINGS

According to the statistics above, remote work in terms of work environment and digital skills has a relationship with cross-cultural team dynamics. Each hypothesis is discussed in detail below.

Work Environment and Team Productivity

The data analysis results in Table 1 revealed a strong relationship between the work environment and team productivity. The P-value of 0.000 indicates this relationship is statistically significant, while the rho value of 0.715 further confirms a strong positive correlation. This connotes the quality of the work environment has a substantial and positive impact on team productivity. The very low P-value (0.000) signifies that the observed relationship is statistically significant and not due to chance. Additionally, the rho value of 0.715 indicates a strong positive correlation, meaning that as the quality of the work environment improves, team productivity tends to increase significantly. This finding highlights the importance of creating and maintaining a conducive work environment to enhance overall team performance. The study aligns with Chua et al., (2016) that an ergonomic and well-designed workspace enhances comfort and reduces the risk of work-related injuries, leading to higher productivity and job satisfaction.

Work Environment and Team Cohesiveness

The hypothesis 2 analysis in Table 1 showed a positive strong significant correlation between work environment and team cohesiveness. The P-value of 0.000, and the rho value of .702 demonstrates a strong positive link between work environment and team cohesiveness. This revealed that the quality of the work environment significantly influences team cohesiveness. The P-value of 0.000 indicates that the relationship is statistically significant, meaning the results are highly unlikely to be due to random chance. The rho value of 0.702 signifies a strong positive correlation, suggesting that improvements in the work environment are associated with increased team cohesiveness. This underscores the importance of fostering a supportive and positive work environment to enhance team unity and collaboration. The results support that of Fapohunda (2013) that improving social work environment promote diversity and equity enhance social cohesion and foster a supportive atmosphere.

Digital Skills andTeam Productivity

The results in Table 2 revealed a significant relationship between digital skills and team productivity. The P-value of 0.000 confirms that this relationship is statistically significant. Furthermore, the rho value of 0.698 indicates a strong positive correlation between digital skills and team productivity, suggesting that as digital skills improve, team productivity increases substantially. This implies that investing in the development of digital skills within a team can lead to significant improvements in productivity. The strong positive correlation (rho value of 0.698) highlights the potential benefits of enhancing digital proficiency, as teams with better digital skills are likely to achieve higher levels of performance. The findings agree with Bughin et al., (2018) thatdigital proficiency enhances productivity and efficiency by enabling employees to navigate complex technological environments and adapt to new tools and platforms.

Digital Skills and Team Cohesiveness

Table 2 revealed a significant relationship between digital skills and team cohesiveness. The P-value of 0.000, which is less than 0.05, indicates that this relationship is statistically significant. The rho value of 0.625 demonstrates a strong positive correlation between digital skills and team cohesiveness, suggesting that as digital skills improve, team cohesiveness also tends to increase. This connotes that enhancing digital skills within a team can lead to improved team cohesiveness. The significant P-value of 0.000 and the strong positive correlation (rho value of 0.625) indicate that as team members' digital skills improve, their ability to work together cohesively also increases. This emphasizes the importance of developing digital competencies to foster better collaboration and unity within teams. This finding aligns with van Dijk & Reynolds (2020) that improving digital literacy among marginalized groups promotes team cohesion, social inclusion and help reduce inequalities.

CONCLUSION

This study investigated the impact of remote work on cross-cultural team dynamics within oil firms in Rivers State. The analysis revealed significant findings regarding the association between work environment and team productivity. A conducive remote work environment was found to significantly enhance team productivity, indicating that improvements in remote work settings can lead to better performance outcomes for teams in the oil and gas sector. Similarly, a strong positive correlation was identified between the work environment and team cohesiveness, emphasizing that a supportive remote work environment fosters greater unity and collaboration among team members, crucial for effective cross-cultural teamwork.

Furthermore, the study highlighted the importance of digital skills in remote work contexts. It found a significant relationship between digital skills and team productivity, suggesting that higher levels of digital proficiency contribute to increased productivity among team members. Additionally, there was a strong positive correlation between digital skills and team cohesiveness, indicating that improving digital competencies enhances team collaboration and cohesion in remote work settings. Enhancing the remote work environment and investing in digital skills development are essential strategies for improving cross-cultural team dynamics and overall organizational performance within oil firms in Rivers State. These findings underscore the critical role of supportive work environments and advanced digital capabilities in fostering effective teamwork and achieving productivity goals in remote work contexts.

RECOMMENDATIONS

The following recommendations are proffered to the oil and gas firms:

1. Invest in creating a supportive remote work environment by ensuring ergonomic home office setups, providing reliable technology infrastructure, and implementing flexible work policies.
2. Encourage regular communication through virtual meetings and fostering a culture of trust and transparency can also enhance team productivity.
3. Prioritize building a positive remote work culture through promoting virtual team-building activities, fostering open communication channels, and celebrating team achievements regularly.
4. Provide platforms for informal interactions among team members and facilitate cross-cultural understanding through diversity training to promote cohesion.
5. Invest in continuous digital skills development for their teams and offering training programs and workshops on relevant digital tools and technologies to empower team members to leverage advanced digital capabilities effectively.
6. Encouraging self-paced learning and providing access to online resources to enhance team productivity through improved digital competencies.
7. Enhance digital skills development to contribute to team cohesiveness and facilitate knowledge sharing among team members.
8. Encouraging collaborative digital projects and cross-functional teamwork to foster stronger bonds among diverse team members working remotely.

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