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# Hybrid Work Practices and Employee Productivity of MSMEs in Abuja, Nigeria

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**Abstract**: *This research analyzed the effect of hybrid working arrangements on productivity among employees working in MSMEs in Abuja Nigeria. For guiding principles, the theory of Socio-Technical Systems was strongly grounded in both aim and methodology, which mainly constituted descriptive cross-sectional survey and quantitative data collection respectively. A population of 411 returned usable valid questionnaires, amongst which data analyses were carried out by means of descriptive statistics, Pearson Correlation analysis, and multilinear regression. Both remote working intensity and digital collaboration infrastructure were proved to be positively correlated and statistically significant with the employee productivity generated. The regression further showed that the variables 'remote work intensity' and 'collaboration infrastructure' had a positive significant effect on employee productivity at 5% significance level. Specifically, the strength of remote work intensity was uttermost in its account for 87.8% variation in employee productivity in hybrid work practices, followed by the effect exerted by digital collaboration infrastructure. On the contrary, although bivariate relationships showed a positive correlation between hybrid coordination and managerial support and productivity; the effect size was numerically insignificant; once the full model was carried out, hybrid coordination bore no effect (B = . 0101, p = . 678). The overall Math model was significantly significant at F(3, 407) = 973.343, while it explained 87.8% of the variations seen in employee productivity. Therefore, hybrid work enhancing productivity in MSMEs in Abuja strongly depends primarily on the adjustment of remote work intensity and the provision of strong digital collaboration platforms, while managerial support seems to play an impotent uncle in an indirect manner. The study recommends that MSME owners and managers prioritize the design of the hybrid work, the supportive digital collaboration environment, and the supervision system contextualization in facilitating prolonged productivity improvements.*

**Keywords:** hybrid work practices, remote work intensity, digital collaboration infrastructure, managerial support, employee productivity, MSM

## INTRODUCTION

The hybrid work model has ceased to be a reaction to the pandemic and begun to be instead the heart of management, for it redefines the organization, surveillance, coordination, and so forth of work. Mahadevan et al. (2025) suggest that the remote and digitally mediated work institutions have become an integral part of a greater transformation in how contemporary organizations are structured. McPhail et al. (2024) demonstrate that post-COVID work arrangements have made scholars and managers question their long-held assumptions on presence, control, and productivity. Another big headache for organizations is this: they no longer question the feasibility of partial offsite work; instead, they are preoccupied with concern over whether hybrid work can be invented that will improve performance without deteriorating cooperation, coordination, and accountability. Hybrid working has real gains, but these are not handed out. It was recently seen that a decent random control study discovered by Bloom et al. (2024) found that hybrid working initiatives made job satisfaction metrics better through job retention and improved job maintenance without harming performance. This rather bolsters the case for well-produced hybrid schedules eliciting benefits for both employees and for companies. Yet there is no consensus in the literature. Working with Toscano et al. (2025), it seems like working at home in a hybrid arrangement brings performance gains through improved day-to-day focus and an attitude to work, while Yang et al. (2022) show that working remotely might have negative side effects as well, with fissured, static collaboration networks complicating the sharing of knowledge and coordination. Such discord is important because it implies that hybrid work is likely to have diverse effects on productivity, with consequences based on the exact arrangement and support structure in place.

In the context of micro, small, and medium enterprises, the issue is even greater, where the provision and survival is often based on lean staffing, rapid communication, owner-manager monitoring with usage of scarce resources to the best advantage. For MSMEs, hybrid work is not a question of employee preference or workplace flexibility at all. Rather, it pertains to whether smaller firms are competent enough in terms of technology and management to have dispersed work at their disposal. Sagala and Őri (2024) recently expounded on the success of digital transformation in SMEs and the centrality of the alignment of technologies, leadership, collaboration, and organizational readiness. Further research from the fourth reference indicates that employee productivity is positively influenced by telework, but the relationship is stronger when knowledge sharing and digital business intensity are high. It is also found by Liao et al. (2024) that telework outcomes resulting from feedback are shaped by digital leadership, suggesting that work location alone does not explain performance; management capability and digital support are also needed.

PwC's MSME Survey 2024 has branded MSMEs the backbone of the Nigerian economy because they constitute 96.9%, 87.9%, and 46.32% of businesses, employment, and GDP, respectively. The same report outlines four challenges facing MSMEs: inadequate financing, unreliable electricity, multiplicity of taxes, and the pressure to digitize. Hence, in 2025, the World Bank approved its biggest financing in digital infrastructure to expand access to reliable broadband that would have direct and proven positive impacts on jobs, service delivery, and productivity in Nigeria. The productivity implications for hybrid work that would concern MSMEs in this respect have to be thought of in conjunction with operational realities of digital infrastructure, managerial coordination, and daily operational constraints.

Hybrid work appears not to be well studied in the context of non-African countries. This fact is due to the fact that the largest body of work on this topic comes from the exceptionally large, highly digitized organizations in other countries. There has been some empirical inquiry conducted in these very large corporations, but much of the literature has also used these organizations as benchmarks for the kind of technological and institutional support that could be regarded as outstanding and not reflective of the realities of an average Nigerian MSME. The research identified by Mele et al. (2023) in a recent journal issue was very congruent with this given the fact that this widely dispersed stream of literature is only too fragmented when it comes to addressing performance outcomes. Then again, Straus et al. (2023) show the problem of fluctuation in self-employment productivity when societies give personal, social, and organizational resources in relation to alternative work arrangements. It is then not only hybrid work that requires further study. The bigger concern winning in the low-resource area is whether the sophisticated hybrid work practices will matter at all in promoting the productivity of employed persons in MSMEs operating within the city of Abuja, being the locus where digital distinctions, infrastructure hinderances, supervisory alignments may emerge and lead to such findings.

Many studies already exist that seem to treat hybrid work as a monolithic arrangement, whereas from more recent evidence it requires that examination be made of the specific practices through which these effects are brought forth. Nwankpa and Roumani (2024) show that digital business intensity, along with knowledge sharing, enhances the productivity payoffs of remote work. On the other hand, Gibbs et al. (2024) report that in cases where there is poorly managed coordination of any kind—whether or not hybridized—between time of work from home and office, the susceptibility of innovation loss is magnified. Olafsen et al. (2025) have further emphasized that remote work intensity would shape work performance and productivity indirectly through leadership and work motivation. These studies suggest that hybrid work should not be taken as a vacuous policy tag but should be deconstructed into measurable and managerially meaningful dimensions. This is what the current study aims to do. In this effort, remote work intensity, digital collaboration infrastructure, and hybrid coordination and managerial support are selected as the key dimensions for their promise of providing a clear view concerning the exact mechanisms through which hybrid working could potentially influence employee productivity in SMEs. Maity and Lee (2025) can be considered as reinforcing such, as they conclude that hybrid productivity in SMEs depends heavily on digital infrastructure, communication systems, and effective leadership, not just on encouraging flexibility.

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Given this background, the overriding objective of this study is to explore the impact of hybrid work setups on small and medium scale enterprises (MSME) employee productivity in Abuja, Nigeria. In particular, this study aimed to:

1. consider the impact of remote work intensity on employee productivity in MSMEs within Abuja, Nigeria.
2. invest the influence of digital collaboration infrastructure on the productivity of employees in MSMEs based in Abuja, Nigeria.
3. most importantly, assess the influence of hybrid coordination together with managerial support in influencing the performance of MSME employees in Abuja, Nigeria.

To guide the investigation, the study tests the following null hypotheses:
**$H_{01}$:** Remote work intensity has no significant effect on employee productivity of MSMEs in Abuja, Nigeria.
**$H_{02}$:** Digital collaboration infrastructure has no significant effect on employee productivity of MSMEs in Abuja, Nigeria.
**$H_{03}$:** Hybrid coordination and managerial support have no significant effect on employee productivity of MSMEs in Abuja, Nigeria.

This study is crucial because it extends recent hybrid-work scholarship into an underexamined African context of MSMEs whose productivity cannot necessarily be taken to respond in the same way as in larger or more technologically mature firms. This study is answering a practical management problem being faced by organizations in Abuja: how to organize work in forms that are flexible without, at the same time, under-ing employee output, communication quality, and operational effectiveness. Rather than looking at hybrid-work practices as a dimension within large organizations, the study is situated to provide data that are theoretically pertinent and relevant to MSMEs being run by their owners'/firms' management and policy- making actors in Nigeria.

## LITERATURE REVIEW

### Conceptual Review

### Hybrid Work Practices

Hybrid work practices' specifications are formalized work arrangements that combine employees' onsite and offsite settings within a rule-driven regime based on routines and supported by technology. No longer does it refer to intermittent work from home; rather, it accompanies a larger organization design base that defines the distribution of work within itself over places, communication between employees and teams, and yet still manages to deliver the performance peculiar to the composites of atmospheres. Remote and hybrid work should be seen, argue Mahadevan et al. (2025), as only one facet to a more comprehensive transformation of organizations while McPhail et al. (2024) indicate that hybrid work and remote work now take seriousness just because they impact control, coordination, and productivity. Bloom et al. (2024) go further to assert that hybrid work should be taken as an algorithmic performance system rather than an obscure welfare system, whereas Maity and Lee (2025) maintain that the efficiency of hybrid lenses, particularly in terms of the SMEs, entirely depends on how their systems are structured and supported. In effect, hybrid work practices here can be interpreted as formal or informal arrangements whereby MSMEs leverage off-dwelling/onsite setups in order to maintain high employee productivity.

**Remote Work Intensity**

Remote work intensity, according to the proposal, is the extent to which workers are engaged in their work away from the physical premises of their employer during one work cycle, metrically dictated by days or hours of performance while being present in the office. The need for this kind of intensity is perhaps because the reference to anything regarding hybrid work is not definitive and more occurs in many shades. Through Choudhury et al. (2024), it shows that hybrid arrangements vary in the real-time balancing of the office against telework, and through Toscano et al. (2025), it adds that there is also variability in job performance vis-a-vis days of home telework and days of office work within the very same hybrid arrangement. In the same vein, Yang shows that excessive remote work will shape new collaboration patterns, while Stenling et al. (2025) to support that it is the various levels of remote work intensity providing influence upon working performances through leadership behavior and motivation of an argumentative nature for testing in the research. In this study, remote work intensity is referred to the extent to which employees of MSMEs in Abuja have divided their work time between remote and on-site settings in an organization Hybrid Work Configuration.

**Digital Collaboration Infrastructure**

Digital collaboration infrastructure refers to the array of digital tools, platforms, connectivity systems, and technology-supported processes that enable workers scattered across locations to communicate, share information, coordinate tasks, and get things done. It defines working beyond the confines of device ownership, with reliability, accessibility, and usability of systems powering hybrid working as part of the business model. Sagala and Őri (2024) illustrate how SMEs succeed in digital transformation when technology supports collaboration, learning, and leadership. Nwankpa and Roumani (2024) further contend that digital business intensity increases a positive relationship between remote work and employee productivity, whereas Liao et al. (2024) suggest that digital leadership makes a difference between telework in performance. While relay and hybrid work only provide variable no-good productivity within SMEs as inadequate communications and weak digital infrastructure, Maity and Lee (2025) Digital collaboration infrastructure therefore refers to the availability and adequacies of all digital resources required for MSME workers in Abuja to work productively under the hybrid arrangement.

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**Hybrid Coordination and Managerial Support**

Hybrid coordination and managerial support point toward the policies, the information changing hands, the scheduling formats, and the performance-management initiatives through which managers can align microbusiness employees, tasks, and expectations within a hybrid work set-up. This matters for hybrid work in that flexibility on its own is not pulling in good results. Instead, it is the way leaders are able to maintain a stable job across workstations, and employees know exactly what is expected of them. Metselaar's et al. (2023) work supports the assumption that the perceived performance of the employee tends to improve when the support for autonomy and work-life balance is good. Lewis et al. (24) Testified that telework outcome depends on the effectiveness of the leadership in communication and monitoring work through a digital means. Myllymäki et al. (24) and Stenling et al. (25) respectively posit important conclusions about the crucial changes to performance evaluation symbolized in the link to mobile teleworking and why, through what route, leadership behavior influences performance, as critical in determining the contribution of remote work intensity. In this context, hybrid coordination and managerial support refer to the systems and supervisory practices to provide the grounds for structuring, guiding, and monitoring hybrid work through which MSMEs in Abuja would maturely ensure the employees' productivity.

**Employee Productivity**

Employee productivity is translated by the efficiency and effectiveness exhibited by an employee in translating his or her energy, effort, knowledge, and resources into output values that meet identified quality, time, and completion standards expected in any given work role. In the hybrid work research, productivity is not just seen as output speed or volume, but goes hand-in-glove with attention, harmony, innovation, and goal attainment out of varying working conditions. Bloom et al. (2024) see productivity in relation to sustained performance during hybrid schedules, whereas Straus et al. (2023) showed that perceived productivity in remote settings relies heavily on available resources of support to employees. Liao et al. (2024) link job performance in telework settings to embeddedness and leadership conditions, and Nwankpa and Roumani (2024) show that telework can enhance productivity when the knowledge-sharing and digital-intensity factors are strong. In the present study, employee productivity means the degree to which employees of MSMEs in Abuja successfully accomplish expected work results efficiently, accurately, and consistently under the hybrid work practices.

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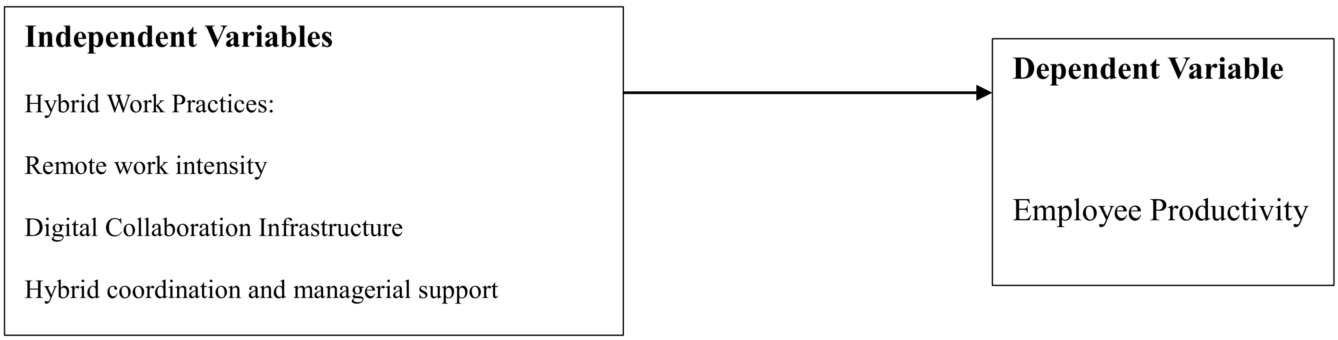
**Conceptual Framework**




Source: Authors Computation, (2025)

**Theoretical Review**

Viewed in the context of managing work on a hybrid mode, the Socio-Technical Systems Theory offers an informed stance from which to explore how organizations reorganize concepts of work systems, interfaces, and societies for hybrid work owing to the social relationship between actors vibrant together. A strong theoretical focal point of this study is the proposition that the performance of the organization is a result of the extensive integration of technical and social work dimensions. Govers and Amelsvoort (2023) on the perspective that organizational performance is stronger when its many technologies, work structures, and human relations are being jointly optimized than looking at them as separated entities. From this point of view, the social subsystem encapsulates the leadership, communication, coordination, supervision, and work relations, while the technical subsystem is smart platforms, workflow systems, tools, and task arrangements. Vartiainen and Vanharanta (2014) further state that hybrid work is a future-thing systemic organizational arrangement and should be recognized as such, instead of an ill-separated one between non-office and office locations. This theoretical perspective seems to apply particularly to this study as regards hybrid work in MSMEs, which is not merely a matter of allowing employees to work from particular locations, but it represents aligning work location, systems, and management processes in ways supporting their productivity. In the presence of Bloom et al. (2014), let me draw one conclusion-properly planned hybrid schedules are able to sustain performance. But then the Socio-Technical Systems Theory maintains that such results are less likely if governance, interaction, and collaboration structures are continuously nullified by the weakness in system design.

The theory illuminates also audibly about the core aspects of the study--digital collaborative infrastructure and hybrid coordination plus management support-by establishing them as technological and social sides of hybrid working system, respectively. Digital collaborative infrastructure sounds the technical part through connectivity, communication platforms, file access, and shared digital workspaces, while hybrid coordination and management support are due to social subsystems through supervisory clarity, scheduling, feedback, and performance monitoring. Applied to that line of thinking, Liao et al. (2024) argue that telework performance is leveraged best, with strong digital leadership ethics confirming minimal in so little a technology such as computers without the right managerial mechanisms. As Maity and Lee would cite in their conclusion, on the other hand, productivity in SMEs through remote and hybrid working works in tandem with communication systems, the quality of infrastructures, and support during implementations, just as Stenling et al. (2025) would reveal the moderating influence of tie between intensity of remote work in work performance with leadership behavior and employee motivation. Together, these arguments purport that employee productivity in Abuja MSMEs will be the most if remote work intensity, digital collaboration infrastructure, and managerial support are carefully designed as their reinforcing counterparts to constitute a cohesive socio-technical system.

**Empirical Review**

Huang et al. (2022) carried a study on forced telework and its outcomes on employee in a Swiss regional public administration. It was tried in a cross-sectional survey design. They used structured questionnaires to collect data from 1,373 employees. Data analysis was done using the job demands-resources framework through the regression method. The study discovered increased autonomy and work-life balance, which came along with the downs of collaboration and rise in perceived performance. These results can be of interest to management because they correlate with issues of telework and performance. It is, however, different from this present study, as the study focused on forced telework in public administration, in contrast to the hybrid nature of work in Abujan SMEs.

Yang et al.'s (2022) study delved into the impact of widespread remote work on the essential aspect of collaboration among information workers. The study followed a natural-experiment design. Data were obtained from 61,182 Microsoft employees in the first half of 2020. Emails, calendars, messages, calls, and work-hour records were analyzed using network and causal techniques. The findings showed that remote work made networks more siloed, reduced synchronous communication, and increased asynchronous communication. The study is relevant because it links remote work to coordination and productivity, but it differs from the present study because it used a large technology-firm sample rather than Abuja MSMEs.

There are studies that examine the negative effects of telework on employees who did not telework, such as Maier et al. (2022) The study used a survey design in one organization with telework arrangements. The sample included 269 respondents and was supported by preliminary interviews. Data were collected through questionnaires and analyzed with a social-comparison model. Findings revealed an increased envy and dissatisfaction among teleworking disparity leading to turnover intentions and reduced job performance. The aforementioned study is relevant as it exemplifies that fairness can affect performance; however, it differs in that it was focused on disparities in perception rather than the hybrid work in MSMEs in Abuja. Fischer, et al. (2023)

assessed how resources shape the experience of public employees telecommuting from Germany. A survey-based quantitative design was followed in this study. Data were collected from 1,189 public employees from the 380 retained for analysis. The study involved online composite questionnaire analysis and multivariate modelling exercises about resilience. What was inferred was an improvement in resilience and work functioning when digital and organizational resources were strong. This study is relevant because it underscores the importance of support systems, whereas previous research focused on resilience of public organizations rather than MSMEs' work functioning. In a study conducted recently, Straus et al. (2023) examined how remote workers' resources impacted well-being, engagement, and perceived productivity. A longitudinal diary study was employed in the study. Daily data were collected across five working days from 2,222 respondents in the first instance and 1,268 in the second instance. These repeated diary questionnaires were analyzed using longitudinal modelling. The study revealed that within the context of the functionalities identified for the home-office, self-efficacy, social support, experience, and adequate resources grown productivity and engagement in the course of time. The study's relevance is found in the connection made between support and productivity, but it was far from this study in that it was aimed in a broader dimension on remote employment instead of hybrid working in those MSMEs in Abuja.

Metselaar et al. (2023) explored how the location of teleworking relates to the perception of performance. The study adopted a cross-sectional survey in a Dutch public-sector organization. A total of 873 employees made up the sample. Questionnaire data were analyzed using structural equation modelling. The results showed that teleworking at home led to no improvement in perceived performance by autonomy work-life balance, while those at other places did not. The study is relevant because data published in this study suggest the direct performance mediators, but this is where it differs from the present survey in that a great deal more focus was put on public-sector telework and not on hybrid working in MSMEs.

Bloom et al. (2024) investigated whether engaging in hybrid work influences retention and performance in a Chinese technology company. This study has lasted six months using the RCT method. The sample constitutes 1,612 cases wandering within the years 2021-2022. Performance was measured through HR records and reviews, coded outputs, promotions and external surveys. The results show that hybrid work enhances job satisfaction, decreases turnover rates, and does not impair performance. This study is of great interest because it supplies rigorous evidence. Nonetheless, the current study is different because the study was conducted in a large tech firm as opposed to Abuja MSMEs.

Choudhury et al. (2024) found a way to control variables because their study provided a rather greater broad range of perceptions and practices on performance interests that are very relevant. In the case of Bangladesh, a field experiment with various aspects of hybrid intensity was conducted. Assortment of office-attendance days of about nine weeks was randomly scheduled. This helped to discover some ambiguity-and-bonding content within the articles. Data on attitudes was noted as being happier when an employee was in the office for about two days a week, yielding an exceptional performance rating. The study itself is a different case because it directly confronts the question of hybrid intensity; however, we in our current study shifted in the context of Abuja MSMEs cites.

To examine the impact of telework on satisfaction and turnover intentions, Lewis et al. (2024) carried out a study among U. S. federal workers. A quasi-experimental design was applied to the program. Data were drawn from the Federal Employee Viewpoint Surveys. An analysis of the data was done using Multivariate and quasi-experimental techniques. The reports showed that with frequent telework, satisfaction goes up and turnover intentions go down. The study is indubitably relevant because it points out the supportive way as to how telework can work, unlike the present study which focused more on productivity and implementation.

Liao et al. (2024) studied the connection between teleworking and job performance, taking digital leadership as interacting moderator. The study was based on multilevel survey design involving 36 enterprise teams and 328 members, with 308 useable responses. Data were analyzed using multilevel regression, mediation, moderation, and bootstrapping methods. It was found that teleworking does not diminish performance, whereas digital leadership emphasizes teleworking resources and assists in reducing telework demands. This study is unique in that it appreciates the essence of digital leadership yet quite diverse relative to the present study, which has up to now focused only on team-level mechanisms of Abuja MSMEs.

Nwankpa and Roumani (2024) focused on examining remote work, productivity, and innovation augmented with knowledge sharing and digital intensity as moderations. The survey design was used in the research. Around 231 remote workers were approached as a sample in the United States. Data was collected using structured questionnaire and analyzed using partial least squares. The research shows that remote work causes and enhances productivity and innovation, especially when knowledge sharing and digital intensity are toward the higher end. The study implies a significant contribution, agreeing not to contradict with this study only in geographical and professional milieus, considering remote workers of the U. S. working from home rather than one of the hybrid-minded contexts of the geographically localized MSMEs of Abuja.

Haines et al. (2024) explored the relationship among different pathways between flexible work arrangements and employees' turnover intention. The study employed a mixed-level design. A total of 1,505 employees nested in 64 work units were explored. Data from surveys were analyzed through multi-level structural equation modeling. Results suggested flexibility working increases autonomy and engagement, although telecommuting helps in the indirect increase in work-family conflict and turnover intention. The study has importance in that it showed both positive and negative paths, but it was significantly different from the present paper in that it concentrated more on turnover intention instead of productivity.

Myllymäki et al. (2024) presented an empirical qualitative examination of evaluating managerial performance of employees in the mobile telecommuting scenario by their supervisors. This study discusses the evaluation by an employer and focuses on the cognitive (attention-based perspective). The findings draw attention to technology facilitating assessment but simultaneously make it more complicated by bombarding managers with a rush of discrete signals. This study is relevant in terms of managerial coordination but different from the present research, which focused on managerial being more rather than employee productivity concerning MSMEs.

Gubernator et al. (2024) have assessed the effectiveness of well-being-oriented human resource management in teleworking scenarios. This study was a two-stage survey design that involved German employees who were part of a sample of 1,980 respondents. Online questionnaire data were analyzed for teleworking and non-teleworking scenarios. The results show that well-being-oriented HRM correlates positively with happiness and health-related well-being under teleworking conditions. The study is significant as it suggests that there is utility in organizational support at a distance; this difference in opinion, though, lies in the evaluative focus: between well-being and productivity.

Perelman et al. (2024) examined the effect of teleworking vis-a-vis health and productivity among workers in southern Europe. This was a cross-sectional type of study, and data were collected from 1,069 respondents from 25 Portuguese companies and an extra panel. These were analyzed with logistic regression. According to their findings, most people liked their telework and claimed to have increased productivity, except those who were negatively affected by poor housing. It is relevant because it is most directly and immediately able to connect working conditions to the condition of productivity, but it was also another study simply concentrating in Portugal in search of hybrid working in Abuja MSME.

Mühl and Korunka (2024) assessed the difference of a four-day compressed schedule on employee outcomes. The longitudinal design was employed on the research. The sample comprised 247 workers from a construction firm. The data was analyzed using latent change score modeling. The results revealed quality of life improved, while tiredness, which is a time-consuming task, also lagged downward. Productivity was maintained. The study related reasonable concerns when discussing the impact of flexibility on quality of life without a good return on productivity but does not directly answer the present study's questions since those pertain to hybrid variations and compressed schedules elsewhere. The ultimate intention and question for investigation enveloped the hypothesis "Flexibility stigma mediates the relationship between support and flexible scheduling"; thus followed the implementation to hook the examination barely to refit the purpose, whereas the colleagues emphasized the questions and preliminaries based on information:

Lee and Kim (2025) examined flexibility stigma, supervisory support, and the use of flexible work arrangements in the public sector. The study used data from the Federal Work-Life Survey conducted in 2017 of U. S. federal government employees. The distinction included flextime, stuff, and content on an even path. The data thus analyzed the role of support on the behavior and implementation of flexible scheduling. The findings showed that flexibility stigma decreased its usage, while supervisory and organizational support softened negative effects. The study is relevant because it emphasizes managerial support, whereas in the present study, the focus was on usage and stigma rather than on productivity.

Berkery et al. (cellulose-based plasticizer) examined how flexi-time adaptability translated in favor of better organizational performance seen through 22 countries. The cross-national quantitative design was adopted for this study. It drew on the data provided by the CRANET. Coming in as institutional moderators were formal institutions and informal institutions. Analysis included curvilinear modeling; there was investigation of moderation effects. Findings suggested, therefore, that outcomes for flexi-time are different for cultures of tightness as well as labor legislation. This study has made an important contribution toward the significance of context for the effects of flexibility. Still, in a contrast to this study, absenteeism and turnover, not actually productivity, was the subject matter in the case of Abuja MSMEs.

Stenling et al. (2025) looked into the influence of remote work intensity on work performance through leaders and motivation. The study has made use of a longitudinal design, with data collected in three waves. The study also explored the relationships between on-site remote work intensity, leadership behavior, motivation, and performance. The study showed that higher on-site remote work intensity predicted that the leader would be more supportive and that motivation would enable greater proficiency, adaptability, and proactivity. This study is very relevant as it examines remote work intensity as a predictor of performance, but the geographical focus does differ a bit, as Stenling et al. studied Norwegian employees while we have focused on the Abuja MSMEs.

**Literature Gap**

Though various empirical research has contributed to the understanding of teleworking, remote work, and hybrid work arrangements; according to Yang et al. (2022) Bloom et al. (2024), and Lewis et al. (2024), much of the empirical research in this area is concentrated mostly in large firms, public administration settings, and technologically advanced environments, creating a wide contextual gap as these environments are vastly different from MSMEs in Abuja in terms of technological infrastructure-proofing, management structure, and infrastructure dependency. As a result, the present MSME situation is very different from that of Microsoft, Trip.com, federal or European public agencies; hence, generalization of findings taken from these sectors to small Nigerian firms under very restricted environment and control/supervisory standards falls intensely into a void. Another sinkhole regarding the objective is in its rather lateral nature as many of the existing works dealt with telework or remote work per se as a broad work arrangement or through isolated dimensions such as collaboration, satisfaction, innovation, and well-being. For instance, Yang et al. (2022) casted their study under the rubric of collaboration networks, Nwankpa and Roumani (2024) looked at productivity and innovation in remote-work locations, and Myllymäki et al. (2024) concentrated heavily on remote performance evaluation, but these works did not operate in a collective framework addressing remote work intensity, digital collaboration infrastructure, and hybrid coordination and managerial support in the same study. Furthermore, yet another gap in outcome-related issues is noticeable in that many recent studies place importance on satisfaction, engagement, alienation, turnover intention, and well-being, rather than employee productivity itself. Haines et al. (2024) investigated IT on turnover intentions; Gubernator et al. (2024) discussed well-being; and Lee and Kim (2025) examined flexibility stigma and flexible work arrangements. In those few instances where performance is looked to, the evidence is usually indirect or deeply buried in the organization, rather than being directly addressed in the context of employee productivity within the MSMEs. The current study, therefore, takes it upon itself to investigate these gaps, examining whether remote work intensity, digital collaboration infrastructure, and hybrid coordination and managerial support significantly impact employee productivity in MSMEs in Abuja, Nigeria.

## METHODOLOGY

This study was cross-sectional and descriptive in design and quantitative in approach. It was conducted to determine the impact of hybrid practices on employee performance in MSMEs in Abuja. The design of the study was apt because the variables were measured at a certain point in time and could mathematically be analyzed. The study was set in Abuja, FCT, and surveyed the six area councils where MSME formal activities are concentrated. One of the areas had so many disaggregated records about the MSMEs, adding up to a figure of 98,000 MSMEs in all. These were stratified into micro enterprises (70,560), small enterprises (20,580), and medium enterprises (6,860) since they affect digital capacity, managerial structure, and work flexibility.

A sample size of 398 was selected following Yamane's formula considering a 5% error margin. Including 438 persons provided coverage against possible non-responses by 10%. Proportional allocation has divided participants into 315 for micro, 92 for small, and 31 for medium enterprises, whereas stratified sampling was used across enterprises to ensure representation among the strata. Primary data collection was conducted using a structured questionnaire for employees of the MSMEs selected. Section A sought demographic data while, under an application on scale of five, Section B aimed at exploring: Remote work intensity, digital collaborative infrastructure, hybrid coordination and managerial support, and employee productivity. The instrument was examined for face and content validity through expert review and pretesting while internal reliability using Cronbach's alpha exceeded the threshold of 0.70. Data were coded and analyses were realized in SPSS. Descriptive statistics such as frequency, percentage, mean, and standard deviation summarized the responses, and the hypotheses were tested at the 5% level of significance. Pearson correlation and regression were used for this analysis. The regression model is expressed as
$EP = \beta_0 + \beta_1 RWI + \beta_2 DCI + \beta_3 HCMS + \varepsilon$,
where EP = Employee productivity, RWI = Remote working Intensity, DCI = Digital Collaboration Infrastructure, and HCMS = Hybrid Coordination and Managerial Support.

## RESULTS AND DISCUSSION

This section presents the descriptive, correlational, and multivariate results for the study and interprets them in relation to the study objectives and hypotheses.

**Table 1**
*Descriptive Statistics for Study Variables*

| Variable | N | Mean | SD | Variance | Skewness | SE | Kurtosis | SE |
|---|---|---|---|---|---|---|---|---|
| EP | 411 | 2.002 | 1.221 | 1.490 | 1.119 | .120 | .177 | .240 |
| RWI | 411 | 2.075 | 1.311 | 1.719 | 1.022 | .120 | -.214 | .240 |
| DCI | 411 | 1.893 | 1.312 | 1.720 | 1.359 | .120 | .448 | .240 |
| HCMS | 411 | 2.331 | 1.296 | 1.680 | .690 | .120 | -.673 | .240 |

*Note. EP = employee productivity; RWI = remote work intensity; DCI = digital collaboration infrastructure; HCMS = hybrid coordination and managerial support.*

Informally named Table 1, every one of the 411 questionnaires showed up to be utilized for statistics. The arithmetic means of dependent variables suggest a relatively low average score, except for hybrid coordination and managerial involvement. From the results in Table 1, we could see a repeated pattern where the privileged average of the sample started on hybrid coordination and managerial involvement and ended at the lower extreme of the digital collaboration infrastructure. This shows whether the timing of the key change is due in order of importance in the sampled MSMEs, but with lesser involvement on the end of the technological construction essential for effective hybrid work. The measures of dispersion as well show a wide response range, meaning that Abuja's MSMEs are not uniform in their experiences with hybrid work practices. From an interpretive level, the overall descriptive results denoted a fragmented hybrid-work milieu, yet one that may enjoy promissory support from managerial intentions to sustain, but it is relatively underdeveloped on the tech and operational fronts necessary for generating performance.

**Table 2**
*Pearson Correlations Among Study Variables*

| Variable | EP | RWI | DCI | HCMS |
|---|---|---|---|---|
| EP | 1.000 | .908** | .812** | .440** |
| RWI | .908** | 1.000 | .718** | .353** |
| DCI | .812** | .718** | 1.000 | .595** |
| HCMS | .440** | .353** | .595** | 1.000 |

*Note. N = 411. ** p < .01 (two-tailed).*

Table 2 shows that employee productivity has a positive and significant relationship with the three variables. The degree of association is most apparent for employee productivity and intensity for remote working, followed by digital collaboration infrastructure; hybrid coordination and management support are more distant yet still significant. These three variables seem to be connected in expected directions, but unfortunately, their synergies in terms of productivity seem in influential directions: work arrangement and technology play more powerful roles than personnel support alone. In a greater sense, the correlations imply that hybrid employment practices and outcomes are not mere organizational structures but, instead, have intimate significance for the productivity of employees.

**Table 3**

*Model Summary for the Regression of Employee Productivity on Hybrid Work Practices*

| Model | R | $R^2$ | Adjusted $R^2$ | SE Estimate | $\Delta R^2$ | F | Durbin–Watson |
|---|---|---|---|---|---|---|---|
| 1 | .937 | .878 | .877 | .42854 | .878 | 973.343 | 1.204 |

*Note. Dependent variable = EP. Predictors = RWI, DCI, and HCMS.*

Table 3 elucidates the very powerful predictive power of this regression model. A multiple correlation coefficient value of . 937 indicates a near perfect association between the predictor variables and employee productivity, whereas an R square value of . 878 would denote a 87.8% explanation of the variance in the dependent variable, namely, employee productivity, by remote working intensity, digital collaboration-infrastructure systems, hybrid coordination, and managerial support. This percentage is unique and quite substantial in behavioral and applied research. It also suggests that the variables chosen did indeed capture the basic underlying mechanisms by which the hybrid work arrangement impacts productivity in the sampled MSMEs. The low adjusted R square (R square = . 877) correctly indicates that this model is robust even after the total number of covariates has been accounted for. In other words, the model summary suggests that hybrid-work design is not a peripheral issue for MSMEs in Abuja; rather, it is at the center of performance themes.

**Table 4**

*ANOVA for the Regression Model*

| Source | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 536.253 | 3 | 178.751 | 973.343 | < .001 |
| Residual | 74.744 | 407 | .184 | | |
| Total | 610.998 | 410 | | | |

*Note. Dependent variable = EP.*

Table 4 verifies that the regression model is statistically significant overall as $F(3, 407) = 973.343$, $p < .001$. This implies that the joint effect of remote working intensity, digital collaborative infrastructure, and hybrid coordination and managerial support on employee productivity [sic] is significantly different from randomness, thus validating the model section-by-section and enabling a detailed explicatory analysis of each variable. So, hybrid work practices, taken as a whole, become pertinent predictors of employee productivity in Abuja MSMEs and thus deserve a strategic organizational, rather than administrative, consideration.

**Table 5**
*Regression Coefficients for Predicting Employee Productivity*

| Predictor | B | SE | β | t | p | Decision |
|---|---|---|---|---|---|---|
| Constant | .110 | .049 | | 2.237 | .026 | |
| RWI | .627 | .023 | .673 | 26.767 | < .001 | Reject H01 |
| DCI | .300 | .027 | .322 | 11.005 | < .001 | Reject H02 |
| HCMS | .011 | .020 | .011 | .527 | .598 | Do not reject H03 |

*Note. Dependent variable = EP. Regression equation: EP = 0.110 + 0.627(RWI) + 0.300(DCI) + 0.011(HCMS) + ε.*

Table 5 offers the most robust test of the hypothesis, assessing individual set of variables while controlling for the others. The findings summarize that remote work intensity has the most powerful positive effect on employee productivity-from a statistical near-zero level of 2.057 in Model 1 to a statistically significant, positive, non-zero value of 0.627 in the full model. Thus, DCI is next to create a significant positive impact on employee productivity in the models. Here, the contribution of hybrid coordination and managerial support will not strongly affect the model. The complete statistical findings can be given according to the regression equation: EP=0.110+0.627(RWI)+0.300(DCI)+0.011(HCMS)+e. The productivity improvement from the hybrid work arrangement in the given MSMEs is mainly due to the intensive design of work and digital capability, with regard to managerial support as an isolated factor.

**Test of Hypotheses**

***Hypothesis One***
Through the use of HTML version, an unexceptionable hypothesis stating that the work intensity of an employee has no significant impact on the productivity of an employee in the MSMES located in Abuja Nigeria must be denied. According to Table 5, work intensity of the remote clearly resulted in the high increase of the productivity of employees (B = 0.627, β = . 673, t = 26.767, p < . 0001). By seeing the standardized beta value, it can be presumed that of all the factors, the work intensity seems to contribute the most in variance. This means that increases in work intensity led to a significant increase in performance, even keeping all other variables constant from the model. From the implication of the results, properly structured managerial motivation will act as a key lever of performance for MSMEs in Abuja.

***Hypothesis Two***
To reject the null hypothesis, stating no impact on employee productivity occurs, from digital collaboration infrastructure to MSMEs in Abuja, Nigeria, at the point of the conclusion of this work. The regression coefficient has a positive and statistically significant value for digital collaboration infrastructure (B = 0.300, beta = 0.322, t = 11.005, p.

***Hypothesis Three***

We fail to reject the null hypothesis suggesting that hybrid coordination and managerial support bear no significant effect on employee productivity within before-mentioned category of businesses situated in The Federal Capital Territory. Although the coefficient is positive: the estimate is displayed as 0.011 - let us not forget that the small effect is very weak at the 5% significance level, with a t of 0.527 and p of. 598; it implies that, in terms of determining remote work intensity and digital collaboration infrastructures, a hybrid set-up and managerial support independent of each other cannot add up to mean much for the employees' productivity. In other words, good old managerial cheerleading is good, but not good enough; it may be one stage removed, working indirectly or requiring a set of much stronger technology or systems, before its productivity impacts can actually be felt.

## DISCUSSION OF THE FINDINGS

Differential revealed that work intensity directly links with the increased performance of the employee. A hybrid schedule goes by just fine after maintaining performance while gaining a high number of positive results (Bloom et al., 2024). Similarly, also leading to the high intensity associated with the hybrid work shows how it can provide favorable results in attitudes without having to detract from performance. Another qualifier is offered by Stenling et al. (2025) indicating the buddy-up of leadership behaviors and employee motivation, which affect the work intensity of remote workers and, in the same way, on performance. One result is an outlier on the growing set of knowledge showing that remote work does not depress the performance "par sec;" rather, the effect of performance depends on how it is configured. The positive coefficient amongst Abuja MSMEs implies that high levels of remote work intensity may result in improved productivity for the employees when given a chance to achieve flexibility, reduce commuting constraints, and focus on the completion of the given task under an appropriate hybrid structure. Work location must be considered as a component of a larger system within Socio-Technical Systems Theory.

Within the record of economic digital infrastructure, the first suggestion is that the digital collaborative tools had a significant positive effect on the overall employee effectiveness. Digital intensity is shown as improving productivity by Digalectis et al. (2024), whereas resources and leadership in the digital world are said to sustain better performance. Sagala and Ori (2024) argue that the successful transformation of an SME toward the digital realm is only possible if sophisticated IT systems work together with collaboration and organizational readiness. This study's finding that the digital collaborative infrastructure coefficient is significant would suggest that hybrid work would land Abuja MSMEs as more productive when workers can communicate, access both stored data and documents, collaborate on tasks, and maintain some form of workflow continuity across locations. From this perspective, the STS Theorem argued that the natural subsystem is not just supportive; rather, it turns into the infrastructure that operationalizes distributed work.

Thirdly, the findings suggest that through laggardly employer support, none at all, and hybrid coordination, impact factors positively co-relate with employee performance improvement. This is not, not statistically valid, or in other words not independently valid once we control for other variables. Lewis et al. (2024) review that good supervision communications and monitoring of supervisor are still required in telework settings. According to Myllymaki et al. (2024), performance assessment is more intricate in a digital telework setup because managers need to infer the signals from the disjointed yet technology-aided network. Stenling et al. (2025) offer a further demonstration that there are leadership behaviors that only affect performance indirectly by lengthening motivation. That suggests that although very important, manager support could be less explicit, conditional, or oppressive to some other structural variables in SMEs from Abuja. Principally, supervision can hardly substitute for inadequate digital structures nor remote work settings that inadequately calibrated.

The collective evidence forerunning Socio-Technical Systems Theory seems fairly robust but not homogenous. According to this principle, Govers and van Amelsvoort (2023) claim that organizational performance can excel when the social and technical subsystems are optimized together, which is substantiated by the present finding, namely that the technical and job content dimensions of hybrid work carry substantially superior explanatory power for work productivity. The model also displays a low direct effect of hybrid coordination and managerial support towards explaining employee productivity, which implies that the social subsystem may function more as an assisting or enabling force rather than an autarkic driver. That is, the theory has not been wholly discarded; rather, the finding suggests that the socio-technical balance in Abuja MSMEs may first be constructed from functional and operational remote intensity and reliable digital systems, only after which managerial support could under build and stabilize the created commencement.

## CONCLUSION AND RECOMMENDATIONS

Consequently, the study established that the intensity of hybrid work procedures are strong predictors of staff productivity in small and medium businesses in Abuja, Nigeria. However, effects are not the same for all: Strong, positive coefficients were found for remote work intensity and digital collaboration infrastructure. Nonetheless, the greatest predicted influence on all predictors emerged for remote work intensity while the technological and structure combinations show negligible to nonexistent effects. In view of the pattern of results, the conclusion may be derived that the form and technology of a hybrid work option are indispensable factors governing productivity in Abuja MSMEs, leaving managerial support as a probable indirect or additional influence.

Based on these results, it is recommended that hybrid practices need to be formalized by MSME owners and directors within the context of a given task, operational routine, and employee position. They need to allow for the optimization of remote working in accordance with specific task requirements as they invest in the necessary digital infrastructure for collaboration: reliable connectivity as well as communications platforms, shared file-systems, and file access. These resources are deemed central for any institution aiming to stand the test of time under the hybrid arrangement. Though the regression model showed that managerial support was not of independent significance for hybrid productivity, management should focus on maintaining role clarity, discipline to maintain communication, and guidance to sustain or better hybrid working.

**Suggestions for further studies**

Hybrid organization and coordination with managerial support should be looked into further to explore the indirect impact it has on increase in employee productivity--through motivation, work engagement, trust, or knowledge sharing. It can also be extended further into Lagos City or any other sectors in Nigeria destined to see whether Abuja's MSMEs model is capable of being generalized across different institutional and infrastructural settings. In this case, further experts can draw upon future collaborative studies with diagnostics of collinearity, mediation analysis, and longitudinal designs, thus tapping causality on the structural routes running from hybrid working practices to productivity with soundness.

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