

Hybrid Work Flexibility and Its Effects on Productivity and Stress in Tarakan City



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Abstract: This study examines the influence of hybrid work flexibility on employee productivity and stress levels within the regional context of Tarakan City, North Kalimantan. Using a quantitative explanatory design, data were collected from 120 respondents through purposive sampling. The analysis was conducted using multiple linear regression with separate models for each dependent variable. The results indicate that hybrid work flexibility has a positive and significant effect on employee productivity ($t = 6.845$, $p < 0.05$). In a separate model, hybrid work flexibility also shows a negative and significant effect on employee stress levels ($t = -3.276$, $p < 0.05$). The coefficient of determination shows that hybrid work flexibility explains 67.4% of the variance in productivity ($R^2 = 0.674$), while its explanatory power for stress levels is lower. These findings suggest that hybrid work flexibility is statistically associated with increased productivity and reduced stress levels among employees. The results provide empirical evidence on the role of flexible work arrangements in shaping employee outcomes in regional urban settings.

Keywords: Hybrid Work Flexibility; Employee Productivity; Stress Level Digital Transformation; Tarakan City.

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INTRODUCTION

The landscape of employment in Indonesia has undergone a fundamental transformation in recent years, largely driven by the COVID-19 pandemic, which accelerated digital integration and the adoption of flexible work arrangements. By 2026, Work from Anywhere (WFA) and hybrid work models have evolved from temporary responses into strategic organizational practices aimed at enhancing efficiency and adaptability. These models enable employees to perform their tasks across various locations, supported by advancements in information technology. From a theoretical perspective, workplace flexibility is closely associated with employee performance. Robbins and Judge (2017) argue that performance is a function of ability, motivation, and opportunity, where flexibility can provide the autonomy necessary to optimize individual potential. In addition, Hartono (2007), through the Technology Acceptance Model (TAM), emphasizes that perceived usefulness and ease of use of digital systems play a crucial role in shaping productivity outcomes.

Empirical studies at the global level have shown that hybrid work arrangements can improve both organizational performance and employee well-being. Bloom et al. (2023) found that hybrid systems maintain productivity while increasing employee retention. Similarly, Wang et al. (2021) reported that flexibility contributes to higher job satisfaction and lower levels of burnout. However, these findings are not entirely consistent. Other studies highlight that the blurring of boundaries between work and personal life in flexible arrangements may increase stress and work-life conflict, particularly in poorly regulated systems. This indicates that the relationship between hybrid work, productivity, and psychological well-being remains complex and context-dependent.

In the Indonesian context, existing studies also demonstrate mixed findings. While some research indicates that productivity remains stable or even improves under flexible work arrangements, there is evidence of increasing stress and anxiety among employees. This suggests that improved performance does not necessarily coincide with better psychological outcomes. Dessler (2020) further argues that the effectiveness of flexible work systems depends heavily on organizational policies and management practices, as unclear structures may lead to role ambiguity and reduced work quality. Despite the growing body of literature, most prior studies have predominantly focused on large urban or metropolitan areas, with limited attention to regional cities. This creates a significant research gap, particularly in understanding how hybrid work flexibility operates in smaller or developing urban contexts such as Tarakan City. Regional areas often face distinct challenges, including limited digital infrastructure, varying levels of technological readiness, and different organizational cultures. These contextual differences may influence how hybrid work affects both productivity and employee stress.

Furthermore, previous studies often examine productivity and stress separately rather than within a single framework. This approach limits a comprehensive understanding of the overall impact of hybrid work flexibility. Therefore, further research is needed to examine how hybrid work flexibility affects both employee productivity and stress levels simultaneously, particularly in regional contexts. Based on these gaps, this study aims to analyze the influence of hybrid work flexibility on employee productivity and stress levels in Tarakan City. Specifically, this study addresses the following questions: (1) Does hybrid work flexibility significantly affect employee productivity? and (2) Does hybrid work flexibility significantly affect employee stress levels? By addressing these questions, this study provides empirical evidence in a regional context and contributes to a better understanding of hybrid work practices.

LITERATURE REVIEW

Organizational Behavior Theory

From an organizational behavior perspective, individual performance is not solely determined by ability and motivation, but also by the work environment that enables performance (Robbins & Judge, 2017). In this context, work flexibility functions as a contextual factor that expands the “opportunity to perform.” However, existing literature suggests that this relationship is not always linear.

Some studies indicate that flexibility enhances performance by increasing autonomy and job control (Bloom et al., 2023). In contrast, other findings reveal that without clear structures and coordination mechanisms, flexibility may reduce performance due to decreased

accountability and communication inefficiencies (Alfarizi et al., 2024). These contrasting findings suggest that the impact of flexibility is highly contingent on organizational context and support systems. Therefore, in regional settings such as Tarakan City, it is important to empirically examine whether hybrid work flexibility serves as a performance enabler or creates new inefficiencies.

Hybrid Work Flexibility and Technology Adaptation

Hybrid work flexibility extends beyond spatial arrangements and involves the effective integration of digital technologies. According to the Technology Acceptance Model (TAM), the success of flexible work systems depends on perceived usefulness and ease of use of technological tools (Hartono, 2007). Nevertheless, prior research presents mixed evidence. Hopkins and Bardoel (2023) argue that flexibility improves employee engagement and organizational resilience. Conversely, other studies highlight that limited digital infrastructure and low technological readiness may hinder the effectiveness of hybrid work systems, particularly in non-metropolitan areas. This indicates that the success of hybrid work is influenced not only by policy design but also by technological readiness and organizational culture. Thus, in this study, hybrid work flexibility is positioned as a variable whose impact on productivity and stress requires empirical validation within a regional context that differs from large urban centers.

Employee Productivity

Employee productivity is a multidimensional construct that reflects the efficiency and effectiveness of an individual's output relative to the resources utilized. Robbins and Judge (2017) emphasize that productivity is strongly influenced by the "opportunity to perform," which, in the contemporary work environment, is facilitated by flexible work arrangements. Empirical evidence, however, shows mixed results. Bloom et al. (2023) suggest that hybrid work models can enhance productivity by reducing commuting time and enabling more focused work periods. In contrast, Alfarizi et al. (2024) argue that productivity improvements are contingent upon adequate technological support and clearly defined performance metrics. These differing findings indicate that the effect of hybrid work flexibility on productivity is context-dependent and requires further empirical validation, particularly in regional settings such as Tarakan. Based on the theoretical framework and prior studies, the following hypothesis is proposed:

H1: Hybrid work flexibility has a positive and significant effect on employee productivity.

Stress Level

Stress level refers to a psychological condition arising from an imbalance between job demands and an individual's capacity to cope (Robbins & Judge, 2017). The Job Demands-Resources (JD-R) theory posits that work flexibility can function either as a resource that reduces stress or as a demand that increases stress, depending on how it is managed (Bakker & Demerouti, 2023). Previous studies also present inconsistent findings. Trevino Garcia and Christensen (2025) find that hybrid work reduces stress by improving work-life balance. Conversely, Xiao et al. (2021) highlight that increased digital connectivity and "always-on" expectations may elevate stress and burnout. These contrasting results suggest that the

relationship between hybrid work flexibility and stress remains inconclusive and context-specific. Accordingly, this study proposes the following hypothesis:

H2: Hybrid work flexibility has a negative and significant effect on employee stress levels.

The Integration of Productivity and Well-being

Recent management literature emphasizes that productivity and psychological well-being are interconnected outcomes influenced by organizational practices. Dessler (2020) argues that sustainable performance can only be achieved when organizations balance productivity demands with employee well-being. However, prior studies have largely examined productivity and stress as separate outcomes, resulting in a limited understanding of how hybrid work flexibility influences both dimensions. Moreover, methodological considerations indicate that standard multiple linear regression cannot simultaneously estimate the effect of a single independent variable on multiple dependent variables within a single model. Therefore, to ensure methodological consistency, this study examines the impact of hybrid work flexibility on productivity and stress levels using separate regression models for each dependent variable. Based on this approach, the following hypothesis is formulated:

H3: Hybrid work flexibility affects employee productivity and stress levels, tested through separate regression models.

METHOD

This study employs a quantitative approach with an explanatory research design to examine the causal relationships between hybrid work flexibility and employee outcomes. The independent variable in this study is hybrid work flexibility (X), while the dependent variables consist of employee productivity (Y1) and employee stress levels (Y2).

To ensure methodological clarity and accuracy, this study applies two separate multiple linear regression models, each corresponding to a single dependent variable. The first model examines the effect of hybrid work flexibility on employee productivity (Y1), while the second model analyzes its effect on employee stress levels (Y2). This approach is adopted because standard regression analysis is designed to estimate the relationship between one dependent variable and one or more independent variables within a single model.

The regression models are specified as follows:

Model 1 (Productivity):

$$Y1 = \alpha + \beta X + \varepsilon$$

Model 2 (Stress Level):

$$Y2 = \alpha + \beta X + \varepsilon$$

Where:

- Y1 = Employee Productivity
- Y2 = Employee Stress Level
- X = Hybrid Work Flexibility
- α = Constant
- β = Regression Coefficient
- ε = Error Term

This approach ensures that each dependent variable is analyzed independently, reducing potential misinterpretation and improving result validity. The study was conducted in Tarakan City, North Kalimantan, focusing on employees from various sectors who have implemented hybrid or Work-from-Anywhere (WFA) arrangements. Data were collected over a two-month period in 2026 using a structured questionnaire. The quantitative approach allows for objective measurement and statistical testing of the relationships between variables, following established methodological frameworks (Creswell, 2014; Sugiyono, 2019). The research population encompasses all employees operating under hybrid systems within the Tarakan region. Given the absence of an officially documented population frame of employees engaged in hybrid work arrangements in Tarakan City, this study employs a purposive sampling technique. This approach is considered appropriate because the target population is specific and cannot be clearly identified or enumerated, particularly due to the dynamic and informal adoption of hybrid work practices across sectors.

The selection of respondents is based on well-defined criteria to ensure data relevance and validity. Participants were required to have at least six months of experience in a hybrid work environment and to demonstrate adequate proficiency in using digital technologies for work-related activities. These criteria were established to ensure that respondents possess sufficient exposure and understanding of hybrid work systems, thereby enabling them to provide reliable and meaningful responses.

To strengthen the representativeness of the sample, respondents were drawn from diverse sectors, including public institutions, private companies, and service industries, reflecting the heterogeneity of hybrid work implementation in Tarakan. Although probability sampling could not be applied due to the lack of a clear population frame, this study ensures analytical adequacy by adhering to recommended sample size guidelines.

Referring to Hair et al. (2014), a minimum sample size of 100 is considered sufficient for regression analysis to achieve stable and reliable estimates. Accordingly, this study collected data from 120 respondents, exceeding the minimum threshold and enhancing the robustness of the statistical analysis. While the findings may not be generalized in a strict probabilistic sense, the sample is considered sufficiently representative of employees engaged in hybrid work practices in the regional context.

The empirical data consist of primary data collected through structured questionnaires using a five-point Likert scale, complemented by secondary data derived from relevant academic literature. To ensure instrument integrity, the questionnaire underwent stringent validity testing using Pearson's Product Moment and reliability verification through Cronbach's Alpha, with a requisite coefficient exceeding 0.70.

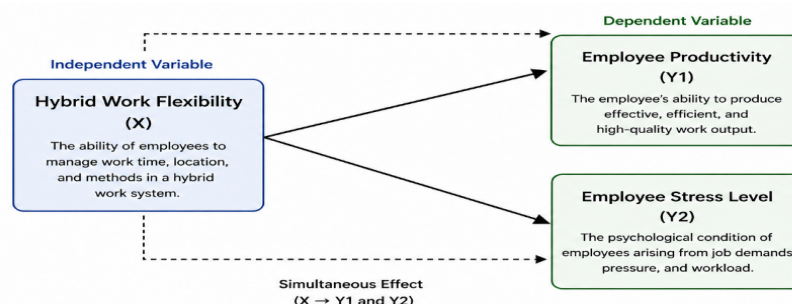


Figure 1. Research Framework

Analytical procedures were conducted utilizing SPSS software, incorporating descriptive statistics, classical assumption diagnostics, and linear regression analysis. Hypothesis testing was executed through the application of t-tests for partial influence assessment and F-tests for simultaneous effect evaluation. Furthermore, the coefficient of determination (R^2) was calculated to quantify the extent to which the independent variable accounts for the variance within the dependent variables. The core hypotheses under investigation involve the positive and significant impact of hybrid work flexibility on professional productivity, alongside its significant influence on managing psychological stress. Through this structural framework, the research seeks to offer a holistic perspective on how versatile work configurations reshape performance outcomes and psychological well-being within the contemporary labor landscape of Tarakan City.

ANALYSIS AND DISCUSSION

The participants in this study comprised 120 employees operating under a hybrid (work from anywhere) framework within Tarakan City. All respondents are actively engaged in digital-based, flexible professional activities, making their insights highly pertinent to evaluating hybrid flexibility, labor productivity, and psychological strain. The demographic profile reflects the contemporary workforce in Tarakan, which is increasingly adapting to technology-driven modern employment systems.

Table 1. Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percentage
Gender	Male	65	54,2%
	Female	55	45,8%
Age	20–30 Years	52	43,3%
	31–40 Years	46	38,3%
	>40 Years	22	18,4%
Length of Service	< 2 Years	34	28,3%
	2–5 Years	56	46,7%
	> 5 Years	30	25,0%

Source: Data Processing Results (2026)

The data indicates a slight male predominance at 54.2% (65 individuals), though the gender distribution remains relatively balanced and representative of the general workforce. Age wise, the majority fall within the 20-30 range (43.3%), suggesting that younger generations, who typically possess higher digital literacy, are leading the shift toward hybrid models. Regarding tenure, 46.7% of respondents have 2 to 5 years of experience, indicating they are in a highly productive phase and have sufficiently adjusted to modern work systems.

Hypothesis Testing

Table 2. Partial Significance Test (t-Test) – Model 1

Model	Variabel	B	t	Sig.
1	(Constant)	1,245	2,312	0,023
	Hybrid Work Flexibility (X)	0,652	6,845	0,000
<i>Dependent Variable: Employee Productivity (Y1)</i>				

Source: SPSS Data Processing (2026)

Table 3. Partial Significance Test (t-Test) – Model 2

Model	Variabel	B	t	Sig.
1	(Constant)	1,245	2,312	0,023
	Hybrid Work Flexibility (X)	-0,318	-3,276	0,001
<i>Dependent Variable: Stress Level (Y2)</i>				

Source: SPSS Data Processing (2026)

Based on the partial test results:

1. Effect of Hybrid Work Flexibility (X) on Employee Productivity (Y1)
 The significance value is $0.000 < 0.05$ with a t-statistic of $6.845 > t\text{-table} (1.980)$, indicating that H1 is accepted. This result confirms that hybrid work flexibility has a positive and significant effect on employee productivity in Tarakan. Greater flexibility in work arrangements enables employees to optimize their performance and efficiency.
2. Effect of Hybrid Work Flexibility (X) on Stress Level (Y2)
 The significance value is $0.001 < 0.05$ with a t-statistic of $-3.276 < -t\text{-table} (-1.980)$, indicating that H2 is accepted. This demonstrates that hybrid work flexibility has a negative and significant effect on stress levels, meaning that increased flexibility contributes to reducing employee stress.

Table 4. Coefficient of Determination (R^2) – Model 1 Employee Productivity (Y1)

Model	R	R Square	Adjusted R Square
1	0,821	0,674	0,668

Source: SPSS Data Processing (2026)

Table 5. Coefficient of Determination (R^2) – Model 2 Stress Level (Y2)

Model	R	R Square	Adjusted R Square
1	0.562	0.316	0.308

Source: SPSS Data Processing (2026)

The coefficient of determination (R^2) is interpreted separately for each dependent variable. Therefore, this study applies two regression models: one for employee productivity (Y1) and another for stress level (Y2). The results show that the R^2 value for the productivity model is 0.674, indicating that 67.4% of the variation in employee productivity is explained by Hybrid Work Flexibility. The remaining 32.6% is influenced by other factors not included in this study.

Meanwhile, the R^2 value for the stress level model is 0.316, meaning that 31.6% of the variation in employee stress levels is explained by Hybrid Work Flexibility, while 68.4% is affected by other variables such as social support, workload, organizational culture, and technological readiness. These findings indicate that Hybrid Work Flexibility has a stronger explanatory power on productivity compared to stress levels. This suggests that while flexible work arrangements can effectively enhance employee performance, their impact on psychological conditions is more complex and influenced by additional external factors.

Impact of Hybrid Flexibility on Productivity

The statistical findings indicate that hybrid work flexibility has a positive and significant effect on employee productivity in Tarakan. This result supports the argument of Robbins and Judge (2017), who emphasize that autonomy enhances intrinsic motivation and improves performance outcomes. In the context of hybrid work, flexibility allows employees to align their work schedules with their peak productivity periods, thereby improving efficiency. However, this finding should not be interpreted as universally applicable. While Panjaitan et al. (2024) report similar positive effects, other studies suggest that productivity gains from hybrid work are highly conditional. For instance, Alfarizi et al. (2024) argue that without clear performance metrics and monitoring systems, flexibility may reduce accountability and lead to decreased output.

This suggests that the relationship is influenced by contextual factors such as job type, organizational support, and digital readiness in Tarakan. In this regional context, hybrid flexibility appears to reduce logistical constraints such as commuting time, which may contribute to increased focus and efficiency. However, it is also possible that productivity improvements are not solely driven by flexibility itself, but by supporting factors such as technology adoption and managerial practices. Therefore, while the findings confirm a positive relationship, they should be interpreted with caution, as the effect of hybrid work on productivity is not inherently uniform across different organizational settings.

Impact of Hybrid Flexibility on Stress Levels

The results also show that hybrid work flexibility has a negative and significant effect on employee stress levels, indicating its role as a stress-reducing factor. This finding is consistent with the Job Demands-Resources (JD-R) theory, which positions flexibility as a resource that helps employees manage work demands more effectively (Bakker & Demerouti, 2023). Several prior studies support this conclusion. Ariyanti et al. (2025) highlight that flexible work arrangements improve mental well-being by enabling better work-life balance. In the case of Tarakan, flexibility allows employees to manage their time more independently, potentially reducing fatigue associated with rigid work schedules.

Nevertheless, contrasting evidence must also be considered. Xiao et al. (2021) warn that hybrid work may increase stress due to blurred boundaries between work and personal life, particularly in environments characterized by “always-on” digital expectations. This suggests that flexibility can simultaneously function as both a resource and a demand. In the context of this study, the stress-reducing effect of hybrid work may indicate that employees in Tarakan experience flexibility in a relatively controlled and supportive environment. However, without proper organizational policies, such as clear working hours and communication

boundaries, the long-term impact of hybrid work on stress may differ. Thus, the findings should be understood as context-specific rather than universally generalizable.

The Simultaneous Influence on Productivity and Stress

The findings of this study demonstrate that hybrid work flexibility is associated with increased productivity and reduced stress levels. However, it is important to clarify that these effects are identified through separate analytical models, and not through a single simultaneous estimation. From a theoretical perspective, this dual outcome supports the argument that employee performance and well-being are interconnected (Dessler, 2020). A work environment that provides autonomy and flexibility may enhance productivity while also reducing psychological strain. However, prior studies have shown that this relationship is not always balanced. In some cases, increased productivity may come at the cost of higher stress levels, particularly when flexibility leads to longer working hours or increased expectations.

In the context of Tarakan, the findings suggest that hybrid work flexibility currently functions as a supportive mechanism for both performance and well-being. This may be attributed to relatively moderate work demands and the absence of excessive digital pressure compared to larger metropolitan areas. However, this condition may evolve as digital adoption intensifies. Therefore, rather than viewing hybrid flexibility as a universally beneficial strategy, it should be understood as a context-dependent organizational practice. Its effectiveness depends on how well it is managed, particularly in terms of workload distribution, performance evaluation, and boundary setting.

CONCLUSION, LIMITATIONS, AND RECOMMENDATION

This study examines the effect of hybrid work flexibility on employee productivity and stress levels among 120 employees in Tarakan City in 2026. The findings show that hybrid work flexibility increases productivity and reduces stress levels. These results suggest that greater flexibility in work arrangements is associated with improved task efficiency and lower perceived work-related stress within the observed sample. However, the findings should be interpreted within the specific context of this study. The influence of hybrid work flexibility on productivity and stress may vary depending on factors not included in this model, such as technological readiness, organizational support, and individual work characteristics. Therefore, while hybrid flexibility contributes meaningfully to both outcomes, it does not fully explain all variations in employee performance and psychological well-being.

Overall, this study provides empirical evidence that hybrid work flexibility plays a measurable role in shaping employee productivity and stress levels in Tarakan City, without extending conclusions beyond the scope of the data analyzed. The theoretical and practical contributions of this study offer vital insights, particularly regarding the optimization of digital based labor and the vital role of mental health as a performance driver. The evidence indicates that simply adopting hybrid tools does not guarantee improved results; rather, it is the flexibility and trust embedded within the system that drive substantive progress. Consequently, these insights can inform institutional policies in Tarakan to move toward output-based performance evaluations and more empathetic management frameworks that prioritize employee resilience alongside productivity.

Despite its contributions, this study is not without constraints. A primary limitation is the reliance on a relatively localized sample within Tarakan City, which may affect the generalizability of the findings to larger metropolitan or different industrial contexts. Additionally, the cross-sectional nature of the data limits the ability to observe long-term psychological shifts over several years. Future research should consider incorporating longitudinal designs to assess the sustainability of hybrid models over time. Furthermore, subsequent inquiries could explore "Digital Leadership Style" or "Internet Infrastructure Quality" as moderating variables to provide a more granular understanding of what enables or hinders flexibility in regional settings.

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