






“Does teleworking affect physical activities, dietary patterns, job stress, and productivity of Indonesian employees? A moderated mediation analysis”

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DOES TELEWORKING AFFECT PHYSICAL ACTIVITIES, DIETARY PATTERNS, JOB STRESS, AND PRODUCTIVITY OF INDONESIAN EMPLOYEES? A MODERATED MEDIATION ANALYSIS

Abstract

The progression of teleworking in the post-pandemic era and its diverging effects on employees are widely debated among global businesses. This study evaluates the impact of teleworking on employees' physical activities, dietary patterns, job stress, and productivity through a moderated mediation approach. The research objectives are achieved by collecting data through a survey of 443 employees working in banking, insurance, health, and manufacturing institutions in Indonesia. The selection of these sectors was guided by their growing economic contribution to long-term developmental plans (2025–2045) and existing teleworking regulations for their employees. The findings show that teleworking has a significant positive effect on dietary patterns (SE = 0.481; UE = 6.458) and employee productivity (SE = 0.515; UE = 8.508), a significant negative effect on job stress (SE = -0.220; UE = -5.216) and an insignificant positive effect on physical activities (SE = 0.381; UE = 7.257). The mediation result confers that physical activities (SE = 0.436) and dietary patterns (SE = 0.517) have a significant positive impact on the productivity of teleworking employees. However, the mediating effect of job stress (SE = -0.321) shows an insignificant and negative impact on the productivity of teleworking employees. It is also observed that organizational culture plays a significant, positive moderating role (SE = 0.552) in enhancing the productivity of teleworking employees. These findings contribute to developing hybrid working policies for managers looking to address problems of maintaining employee health and productivity in the workplace.

Keywords

teleworking, post-pandemic, employee productivity, work stress, dietary patterns, physical activities, organizational culture

JEL Classification

D20, D23, M12, M14

INTRODUCTION

The subsiding of the COVID-19 pandemic has led to massive transformations in almost all aspects of life, including health, society, the economy, and business (Auton & Sturman, 2024). Notably, teleworking is recognized as a prevalent working mantra among the employees of global business entities (A. Kramer & K. Kramer, 2020). Teleworking, also described as working-from-home, remote working, virtual working, distributed working, and telecommuting, refers to leveraging modern technological tools and devices to perform work from a remote location instead of visiting a physical work location (Allen et al., 2015; Baruch, 2001). These days, employees desire and prefer to telework two-thirds of the time, breaking down the stereotype that teleworking may become an alien or stigma for firms in a post-pandemic world (Adrjan et al., 2021). Despite its popularity, businesses and their employees have experienced diverging economic, financial, and per-

sonal effects, increasing their dilemma of whether to subscribe to or decline teleworking (Barkowski et al., 2020; Baudot & Kelly, 2020; Gibbs et al., 2023; McLaughlin et al., 2020).

The ongoing trend in teleworking has become an interesting research theme for academics, practitioners, and corporations in the post-pandemic era for two main reasons. First, teleworking and its impacts on employees' physical and mental health and productivity are relatively under-explored research themes despite existing for more than six decades (U.S. Census Bureau, 2021). Second, global business entities have established essential teleworking policies and allocated massive investments to achieve economies of scale and contribute to the economic recovery process by activating effective teleworking systems in the post-pandemic era. Therefore, analyzing the impact of teleworking on employees' physical and mental health and productivity is crucial for evaluating the effectiveness of current teleworking policies and identifying the required adjustments so that firms may achieve their strategic goals (Gibbs et al., 2023; Messenger, 2019; Morikawa, 2021).

1. LITERATURE REVIEW AND HYPOTHESES

The academic literature has classified teleworking into three major research themes. The first stream outlines the technical features, requirements, and policies of teleworking. According to the International Labour Organization (ILO) (2020), teleworking requires utilizing computers/desktops, laptops, smartphones, and tablets, also known as ICT-powered devices, to perform work outside of the employer's premises. The seminal studies reveal that early beneficiaries of teleworking were ICT-intensive companies and white-collar employees working from home-based offices (Pratt, 1984). Initially, a few information technology (IT)-driven industry giants such as Facebook and Microsoft created temporary remote positions and policies. Subsequently, Twitter (current X), Salesforce, and Spotify revolutionized teleworking by introducing permanent positions and announcing formal policies allowing employees to work full-time from anywhere during the pandemic. The investigation of tools essential for teleworking highlighted that regardless of work mode, Google (Meet, Calendar, Drive, and One Drive) and Microsoft (Teams, Skype, Outlook, Dropbox, Word, Excel, and PowerPoint) software have remained the cornerstone of efficient teleworking for the employees and the businesses (Ziemba et al., 2023).

The second stream of literature analyzed the role of organizational and employee characteristics in teleworking. Several firms have started experimenting with teleworking and evaluating its impact on employees' performance as well as their

profitability (Angelici & Profeta, 2024). Some studies recommended implementing a moderate level of teleworking to improve firms' and their employees' performance. On the one hand, it will help firms achieve financial efficiency by cutting the utilities and other costs of physical offices. On the other hand, it may create economic benefits for the employees (Anik & Habib, 2025). However, excessive teleworking is characterized as an adverse working arrangement for employees and their firms, especially when they are seeking to achieve ambitious and strategic goals (MacRae & Sawatzky, 2020). A few scholars argued that the nature of the firm determines the possibility of teleworking and labeled it as teleworkability, which refers to the ability of employees to remotely provide input into an economic process (Sostero et al., 2020). Thus, all jobs are not teleworkable, inferring that the nature of the job plays a crucial role in teleworking. A few studies also argued that organizational characteristics are not accurate predictors of teleworking and its impact on employees' physical and mental health, as the employees of certain industries, such as childcare, indicated a considerable increase in their productivity while teleworking (Ozimek, 2020). The experimental surveys in some countries projected a promising future outlook for teleworking, due to an exceptionally better experience of employees than anticipated, large-scale investments in acquiring ICT infrastructure for teleworking during the pandemic, and a surge in organizational innovation during teleworking (Barrero et al., 2021).

The third key research theme is the impact of teleworking on employees' physical and mental

health and productivity. Studies analyzing the influence of teleworking on employees indicate that it is beneficial for maintaining a proper work-life balance and enhancing job performance (Campo et al., 2021; Akinwande et al., 2025). In the context of employee productivity, teleworking enables employees to plan their skills, overcome time constraints, execute work during the most productive hours, select a suitable work environment, and spend time with close family members (Nakrošiene et al., 2019). A few similar studies have also reported positive changes in employees' job satisfaction, reduced turnover intentions, and job stress (Vega et al., 2015; Contreras et al., 2020; Mourgues et al., 2025). While numerous studies classified teleworking as an innovative work mode for achieving job satisfaction, others have acknowledged teleworking as an inhibitor of the general quality of life, mental and physical health, and overall welfare of employees (Gálvez et al., 2020). The findings of most of these studies are pre- or post-pandemic, indicating their irrelevance due to contextuality laying the foundation for this current investigation.

The literature review indicates that the discussion on teleworking impacts on employees' physical and mental health and productivity remains inconclusive and requires further investigation. Hence, the purpose of this study is to investigate the impact of teleworking on employees' physical and mental health and productivity through an innovative moderated-mediation model.

The theoretical underpinnings of job demands-resources (JD-R) theory and self-determination theory (SDT) are operationalized to design a conceptual framework (Figure 1) and estimate the direct impact of teleworking on physical activities, dietary patterns, job stress, and employee productivity, mediating role physical activities, dietary patterns, and job stress and the moderating influence of organizational culture.

JD-R is employed to assess how teleworking facilitates the creation of job demands (workloads and isolation) and job resources (independence and convenience) that may affect job stress and productivity. At the same time, SDT is operationalized to highlight the major effects of teleworking on physical activities, dietary patterns, and job

performance. The existing literature suggests that an increasing trend toward teleworking is associated with its perceived benefits among employees and their employers (Allen et al., 2015). Past teleworking studies have confirmed that it is useful to improve work-life balance, reduce family conflicts, and maximize employees' productivity (Giovanis, 2018; Fischer et al., 2021; Müller & Niessen, 2019; Wang et al., 2023). However, some authors noticed that teleworking disrupts employees' mental and physical health and negatively affects their personal and social boundaries, which may reduce the overall effectiveness of teleworking (Cuerdo-Vilches et al., 2021; Mazumder et al., 2021).

The evidence suggested that the emergence of COVID-19 created new challenges for employees and businesses, as both groups had no prior experience with teleworking (Šmite et al., 2023). Some major drawbacks of teleworking include a sense of social isolation, increased job stress, and anxiety, which can ultimately lead to reduced job satisfaction and decreased productivity among employees (Galanti et al., 2021). Besides its challenges, the pandemic proved to be a blessing in disguise for the firms and their employees as it introduced them to a new working world, more time for physical activities and exercise, consumption of a healthy and balanced diet, reduced job stress and increased job performance due to learning of new skills and knowledge (Barrero et al., 2021).

The literature analyzing the relationship between teleworking and the productivity of employees concluded that the teleworking-based performance of employees and their firms is contextual. Hence, it is inferred that individual and organizational circumstances, such as employees' physical and mental health and organizational culture, may generate different results. This can be confirmed by the findings of recent studies, which have deliberated that organizations implementing flexible teleworking policies create better acceptance of teleworking among employees and enjoy better performance compared to firms practicing controlled and stringent teleworking regulations (Mynarek & Jahr, 2024). The role of organizational resources, such as providing free software, assisting with setting up workstations at remote locations, and efforts to create an ul-

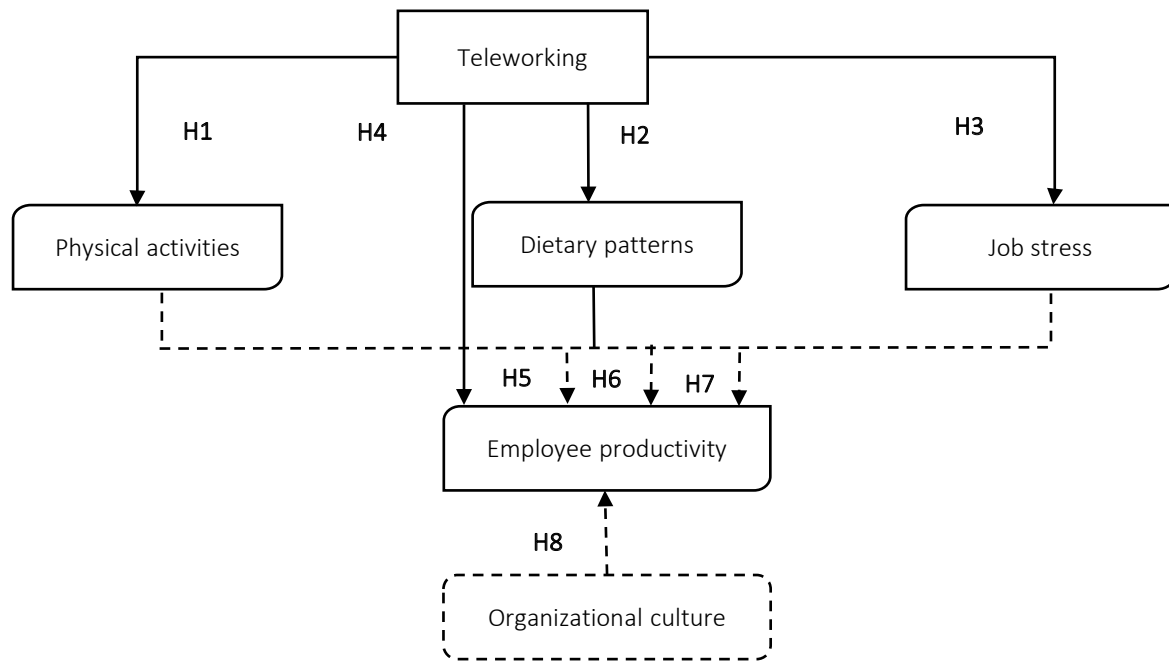


Figure 1. Conceptual framework

timate experience, is recognized as promoting teleworking and employee productivity (Galanti et al., 2021; Sharma et al., 2022).

The literature review indicates that the discussion on teleworking impacts on employees' physical and mental health and productivity remains inconclusive and requires further investigation. Accordingly, present study aims to fill this knowledge gap by analyzing the impacts of teleworking on employees' physical and mental health and productivity employing a moderated-mediation model.

Thus, the research hypotheses of this study are as follows:

- H1: Teleworking affects the physical activities of employees.*
- H2: Teleworking affects the dietary patterns of employees.*
- H3: Teleworking affects the job stress of employees.*
- H4: Teleworking affects employee productivity.*
- H5: Physical activities mediate the relationship between teleworking and employee productivity.*

H6: Dietary patterns mediate the relationship between teleworking and employee productivity.

H7: Job stress mediates the relationship between teleworking and employee productivity.

H8: Organizational culture moderates the relationship between teleworking and employee productivity.

The research hypotheses are tested by designing a conceptual framework (Figure 1). This study follows a quantitative research approach and uses a structured questionnaire to distribute to sampled respondents across the banking, insurance, health, and manufacturing sectors in Indonesia.

2. METHODOLOGY

The research objectives of this study are achieved by employing a self-administered survey for data collection. The corresponding measures to estimate teleworking, physical activity, dietary patterns, job stress, employee productivity, and organizational culture are imported through a focused literature review. After selecting indicative measures, the questionnaire was pretested by consulting with four academics and three practitioners

who had expertise in the thematic areas of teleworking and its transformative effects on employees' physical and mental health and productivity. This strategy was effective in simplifying the language of the questionnaire. The finalized questionnaire items were valid as they were taken from notable studies on similar contexts and passed expert evaluation. These key items are synchronized accordingly to ensure that the conceptual framework appears as a reflective construct.

The content of the questionnaire is covered in two subsections. The demographic details of the respondents, including gender, age, educational levels, job roles, type of teleworking, and frequency of teleworking, are covered in section A. The main content evaluating research variables is presented in section B, covering 26 items. The discussion presented in the analytical framework of this study highlights that teleworking may impact physical activities, dietary patterns, job stress, and employee performance, as well as organizational culture. The relationship between teleworking and employee productivity is further moderated by organizational culture. Accordingly, teleworking is estimated using two items adopted and modified from Wang et al. (2023). Physical activity measures are adopted from the U.S. Department of Health and Human Services (2018) and estimated with four items. Dietary patterns had eight items adapted and modified from Lee et al. (2016). Job stress is estimated with four items adopted and modified from Almendra (2010). Three items measure employee productivity, and organizational culture is measured with five items. The respondents had a 5-point Likert scale (strongly disagree = 1 to strongly agree = 5) to express their opinions for each item.

The research survey targeted employees from the banking, insurance, health, and manufacturing sectors in Indonesia who were mandated to telework at least once a week. These sectors were selected due to their growing economic significance in long-term development plans (2025–2045) of Indonesia and the presence of established teleworking regulations for their employees. The selection of survey participants from different Indonesian firms estimated the perceptions and experiences of teleworking employees under different organizational conditions. This will unpack the actual effects of teleworking on physi-

cal activity, dietary patterns, job stress, and employee productivity, as well as the mediating impact of physical activity, dietary patterns, and job stress on teleworking and employee productivity. Additionally, it will examine the moderating influence of organizational culture on teleworking and employee productivity.

The survey was conducted between August 10, 2024, to September 21, 2024, through social media handlers (LinkedIn, WhatsApp, Facebook, and Instagram) and e-mails. Initially, 625 surveys were distributed, and 450 completed surveys were received, indicating a response rate of 72%. During the data screening and preparation phase, another seven incomplete surveys were excluded, leaving 443 valid surveys. To check non-response biases, a *t*-test was performed, and the *p*-value (> 0.05) for the responding and non-responding participants confirmed the similarity in the responses. Further information on respondents' demographics is available in Table 1.

Table 1. Respondents' demographic profiles

Demographics	Frequency	Percentage
Gender		
Male	208	46.95
Female	230	51.91
Others	5	1.12
Age (years)		
Below 30	26	5.86
30–35	102	23.02
36–40	84	18.96
41–45	78	17.60
46–50	61	13.76
Above 50	92	20.76
Education level		
Diploma/certificate	73	16.47
Bachelor's	243	54.58
Master's	127	28.66
Job position		
General administration	145	32.73
Customer relationship	117	26.41
Operations representative	133	30.02
Business manager	48	10.83
Teleworking mode		
Home	157	35.44
Mobile	123	27.76
Virtual	163	36.79
Teleworking frequency		
Once a week	90	20.31
2–3 times/week	218	49.20
More than 3 times/week	78	17.60
Full-time	57	12.86

The study followed the structural equation modeling (SEM) technique to analyze the collected data through SmartPLS. This approach is accurate for estimating the correlation between variables, measuring structural models, and evaluating the effects of mediators and moderators on multi-group variables. The nexus between latent variables and the remaining constructs of the model is examined using various statistical tests and procedures recommended by Hair et al. (2017).

3. RESULTS

The first phase of analysis estimates whether observable variables are valid and reliable. This is confirmed by analyzing the values of Cronbach's alpha, Kaiser-Meyer-Olkin (KMO), Bartlett's Test of Sphericity, Kurtosis index, and Pearson's Skewness coefficients. The results (Table 2) indicate the reliability of the questionnaire items as KMO and Cronbach's alpha coefficients were higher than the recommended criteria of 0.70. KMO values for physical activity were slightly below the desired criteria, indicating the possibility of employing inclusive measures to evaluate physical activity. The variance explained findings were also satisfactory, delineating that this model explains more than 50% variance in multiple variables.

The preliminary findings of explanatory factor analysis (EFA) (Table 3) indicate that the factor loadings and communalities of questionnaire items fulfill the desired criteria of 5.0 except for DP3, DP6, and DP8. The factor loadings of these variables are exportable to other variables. However, the paper decided otherwise due to the theoretical significance of these items (Hair et al., 2013). Furthermore, the findings of mean values (>3) indicate a fair understanding of the items by the respondents used for each construct. It is also observed that standard

deviations are close to 1, leading to infer that the participant responses are less variable. The model fitness test was verified through KMO, composite reliability, multicollinearity (Pearson Correlation), and AVE values. Collectively, KMO and composite reliability coefficient values are higher than AVE except for JS2 and JS4, delineating the possibility of multicollinearity issues and inferring that only two items are sufficient to estimate this variable. The statistical validity of the observable variables was reconfirmed by dropping the weak items (factor loadings < 0.70). The new factor loadings and AVE created convergent validity (CV). The study followed Hair et al.'s (2013) approach to analyze the correlation between variables using discriminant validity (DV) to establish whether the statistical model is valid.

Often, consistency motifs, social desires, and various other factors that arise during data collection can create common method bias (CMB) issues, which are difficult to eradicate in empirical studies (Podsakoff et al., 2003). To resolve these issues, the study followed Guide and Ketokivi's (2015) technique and encouraged respondents to use their respective firms' formal guidelines to answer the questionnaire items instead of their personal experiences. Statistically, CMB was verified by performing Harman's single factor test, which indicated that Harman's single factor explains 41.73% of the variance, establishing that CMB issues are less likely to contaminate the findings.

Upon fulfilling all the prerequisites to employ SEM, the analysis proceeds to analyze the effects of teleworking on physical activity, dietary patterns, job stress, and employee productivity, the mediating influence of physical activity, dietary patterns, and job stress between teleworking and employee productivity and the moderating impact of organizational culture on teleworking and

Table 2. Data normality and reliability test

Test of	TW	PA	DP	JS	EP	OC
Cronbach's alpha	0.776	0.792	0.754	0.801	0.816	0.840
KMO	0.733	0.516	0.778	0.789	0.805	0.864
Bartlett's Test of Sphericity	2,036.0863*	2,353.05209*	3,041.0764*	3,156.0819*	3,372.0801*	3,365.0839
Variance Explained	73.63%	60.71%	76.49%	67.72%	72.91%	63.68%
Composite Reliability	0.716	0.698	0.787	0.819	0.835	0.846

Note: * shows significance level (p) < 0.05; TW = teleworking; PA = physical activity; DP = dietary patterns; JS = job stress; EP = employee productivity; OC = organizational culture.

Table 3. Varimax rotation results

Variable	Indicator	Factor loadings	Communality	Mean	STD
TW	TW1	0.748	0.701	4.129	0.9312
	TW2	0.736	0.704	4.328	0.8814
Mean 4.228; SD 0.9063					
PA	PA1	0.756	0.626	4.491	0.8384
	PA2	0.728	0.645	4.116	0.9290
	PA3	0.771	0.617	4.296	0.9363
	PA4	0.813	0.745	3.958	0.9518
Mean 4.215; STD 0.9138					
DP	DP1	0.810	0.781	4.128	0.8534
	DP2	0.835	0.819	3.480	0.8403
	DP3	0.552	0.528	3.843	0.8406
	DP4	0.785	0.773	4.230	0.9583
	DP5	0.746	0.723	4.284	0.9422
	DP6	0.598	0.514	3.743	0.8497
	DP7	0.739	0.716	4.394	0.9932
	DP8	0.490	0.483	3.425	0.8974
Mean 3.940; SD 0.8968					
JS	JS1	0.753	0.747	3.584	0.8533
	JS2	0.853	0.758	3.595	0.7492
	JS3	0.749	0.764	3.133	0.9722
	JS4	0.723	0.775	3.230	1.3949
Mean 3.385; SD 0.9924					
EP	EP1	0.754	0.637	3.493	0.8493
	EP2	0.840	0.794	4.849	0.8925
	EP3	0.842	0.746	3.134	0.8263
Mean 3.825; SD 0.8560					
OC	OC4	0.784	0.649	4.392	0.9320
	OC2	0.834	0.740	3.478	0.9362
	OC3	0.754	0.629	3.484	0.9648
	OC4	0.759	0.642	4.728	0.9924
	OC5	0.849	0.752	3.839	0.8594
Mean 3.984; SD 0.9396					

Note: TW = teleworking; PA = physical activity; DP = dietary patterns; JS = job stress; EP = employee productivity; OC = organizational culture.

employee productivity. The empirical hypotheses are verified by analyzing standardized (SE) and unstandardized (UE) path coefficients. The results in Table 4 show that SE and UE coefficients for teleworking/physical activity are insignificant (SE = 0.381*; UE = 7.257), highlighting that H1 is not supported. The path coefficients of teleworking/dietary patterns appear significant and posi-

tive (SE = 0.481***; UE = 6.458), inferring that H2 is supported. The results of H3 (teleworking/job stress) delineate a significant negative linkage (SE = -0.220**; UE = -5.216) establishing that H3 is supported. It is also noticed that path coefficients for teleworking/employee productivity are positive and significant (SE = 0.515***; UE = 8.508), confirming that H4 is also supported.

Table 4. Path coefficients of the integrated model

Hypotheses	Impact		Integrated model	
	of	on	SE ^a	UE ^b
H1	Teleworking (TW)	→ Physical activities (PA)	0.381*	7.257
H2	Teleworking (TW)	→ Dietary patterns (DP)	0.481***	6.458
H3	Teleworking (TW)	→ Job stress (JS)	-0.220**	-5.216
H4	Teleworking (TW)	→ Employee productivity (EP)	0.515***	8.508

Note: * shows significance level (p) < 0.05; ** shows significance level (p) < 0.01; *** shows significance level (p) < 0.001; SE^a is Standardized Estimate and UE^b is Unstandardized Estimate.

Table 5. Model adjustment indices

Cronbach's Alpha*	Bartlett's test of Sphericity*	AVE*	Composite Reliability*	KMO	DF	RMSEA	NFI	IFI	TLI	CFI
0.827	34587.795	0.614	0.858	0.863	20.4	0.061	0.072	0.847	0.782	0.820

Note: * shows significance level (p) < 0.05.

The quality of the structural model was further checked through Bollen (1989), McDonald and Marsh (1990), and Hair et al. (2013) procedures. The adjustment indices are examined by evaluating NFI, IFI, TLI, and CFI values. The validity of the measurement model and the path coefficients of the integrated model confirmed that the measurement model was adequate and fit well with the data. The results of the measurement indices (Table 5) highlight that incorporating new variables and removing less contributing variables may enhance the quality of the measurement model.

The mediating and moderating effect is tested by analyzing the statistical differences in SE and Chi-square values. The results in Table 6 elucidate that physical activity has a significant (moderate) positive effect on the relationship between teleworking/employee performance, implying that H5 is accepted. Both SE and Chi-Square for dietary patterns are also significant (strong) and positive, highlighting that H6 is supported. The findings of H7 show that job stress has a significant (weak) negative influence as a mediator on the nexus between teleworking and employee performance, leading to the acceptance of H7. Moving on to the moderator's impact, it is evident that organizational culture has a significant (strong) positive impact on the teleworking/employee performance relationship, establishing that H8 is accepted.

4. DISCUSSION

The path coefficients of the integrated model (Table 4) and multigroup analysis (Table 6) disseminate that teleworking has a significant positive impact

on physical activity, inferring that teleworking has significantly improved the physical movement of employees and they can focus on improving their overall health through increased physical mobility. This finding is consistent with the results of Fukushima et al. (2021), who claim that teleworking employees may experience lower physical mobility compared to employees working in physical offices. In addition, teleworking employees generally did not engage in moderate to vigorous physical activities (Sharma et al., 2022). This can be due to several factors such as the absence of walking or transportation from home to the office and vice versa, differences in environmental factors between the office and home (including workspace layout, lunch locations, the need to access other employees' rooms, and others).

H2 findings suggest that teleworking may lead to a healthier shift in employees' dietary patterns. The findings delineate that most respondents reported an increase in consumption of healthy foods such as fruits and vegetables, nutritional supplements, and foods that can boost immunity. This result contradicts the findings of Kumari et al. (2020), who argued employees may not experience immediate changes in eating and dietary patterns due to several factors. The findings of the integrated model also revealed that teleworking has a negative impact on job stress, implying that the slow evolution of virtual working has improved employees' learning curve and enabled them to master this new working norm, resulting in less stress while teleworking. This finding contradicts various studies conducted during the pandemic, rendering that teleworking increases work-family

Table 6. Results of multigroup analysis

Hypotheses	Effect of	on	Effect type	SE ^a	Chi-Square Difference (P)	
H5	PA	→	TW/EP	Mediating	0.436	**
H6	DP	→	TW/EP	Mediating	0.517	***
H7	JS	→	TW/EP	Mediating	-0.321	*
H8	OC	→	TW/EP	Moderating	0.552	***

Note: * shows significance level (p) < 0.05; ** shows significance level (p) < 0.01; *** shows significance level (p) < 0.001; SE^a is Standardized Estimate; TW = teleworking; PA = physical activity; DP = dietary patterns; JS = job stress; EP = employee productivity; OC = organizational culture.

conflicts, anxiety, and mental health issues and causes social isolation (Galanti et al., 2021). The findings of *H4* indicate that teleworking significantly increases employees' productivity, likely leading to an increase in similar working arrangements among firms and their employees in the future (Angelici & Profeta, 2024).

The results of mediating and moderating variables exhibit interesting findings. *H5* findings indicate that physical activities during teleworking may moderately contribute to enhancing employee performance, establishing that firms may continue experimenting with teleworking by increasing its frequency and duration and estimating its influence on employee performance (MacRae & Sawatzky, 2020). *H6* findings indicate that dietary patterns may introduce significant changes in employee performance during teleworking, suggesting that organizational interventions are required to reaffirm the importance of a healthy diet in promoting mental well-being (Wang et al., 2023). *H7* findings resonate that job stress may weakly affect employee performance during teleworking, inferring that firms need to continue patronaging teleworking by providing essential resources that will promote job satisfaction and reduce em-

ployee turnover (Kifor et al., 2021). Finally, *H8* findings delineate a significant positive impact of organizational culture on teleworking/employee performance, implying that organizational culture, especially firm policies, regulations, and teleworking approaches, is key to the success of teleworking and enhancing employee performance (Mynarek & Jahr, 2024).

The present study delivered three distinct main contributions. First, it contributed to suggesting essential teleworking policies for Indonesian firms looking to resolve their productivity problems by efficient mobilization of their workforce in the post-pandemic era. Second, the present study serves as a practitioner's guide for Indonesian firm managers facing skills shortage and organizational productivity issues by identifying the factors affecting employees' physical and mental health, which can be used to improve the grey areas through progressive managerial interventions. Third, it contributed to expanding the existing knowledge by laying the foundation of a theoretical framework to empirically examine the impact of teleworking on physical health and productivity of employees, which can be used by future empirics delving into a similar research domain.

CONCLUSION

The primary objective of this study was to examine the impact of teleworking on employees' physical and mental health and productivity using a moderated mediation model. Specifically, the current study aimed to investigate the effects of teleworking on employees' physical activity levels, dietary patterns, job stress, and productivity.

The empirical results confirmed that teleworking may differently affect physical activities, dietary patterns, work stress, and employee productivity in the post-pandemic era. It is also observed that physical activities and dietary patterns may increase employee productivity. Whereas the findings of job stress as a mediator established that job stress may negatively influence employee productivity. The findings suggest that organizational culture has a moderating effect, playing a critical role in optimizing employees' productivity during the post-pandemic era.

The present findings are useful for practical considerations. The regulatory agencies may find the findings beneficial in developing effective teleworking strategies to address employees' health issues, promote social welfare, and generate economic benefits. The findings of the current study are also useful for encouraging the human resource managers responsible for controlling and managing employees' development and welfare by identifying the right teleworking schemes, especially covering key areas of physical training, nutritional programs, and tools to cope with mental and physical health issues. The findings are also significant for policymakers to diversify and enhance the effectiveness of digital platforms, develop policies to facilitate teleworking, and propose portfolio management matrices. The parties re-

sponsible for designing teleworking job descriptions may seek inter-organizational collaboration to develop key capabilities, minimize employee turnover, overcome productivity issues and expert shortages, and motivate businesses to use teleworking for resuming normal operations in the post-pandemic era.

The limitations of this study are linked to the use of the conceptual framework, survey instrument, data collection, and analysis procedures. First, the paper employed attitudinal and behavioral factors to measure teleworking and validated the conceptual model through numerous statistical tests. However, external factors such as job specification, quality of ICT tools, and managerial trust may potentially transform users' perceptions. Future studies are recommended to examine the effect of technology aspect on the perceptions of teleworking employees. The survey instrument used in this study was tested for its reliability, validity, and suitability to the sampled population. However, common method variance and Halo effects still may persist and reduce the generalizability of findings. Therefore, prospective researchers are recommended to design surveys that consider the varying needs of different individuals, allowing for the capture of teleworking experiences and opinions from a large population. The data collection and analysis techniques were discussed and justified from scientific and statistical fronts. Yet, data sources used in this study may not accurately reveal an inclusive picture of the actual problems encountered while teleworking in post-pandemic conditions. Future studies are highly encouraged to employ mixed-methods approaches by conducting focus group interviews to validate the survey outcomes.

AUTHOR CONTRIBUTIONS

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