

Teleworking and Workload Balance on Job Satisfaction: Indonesian Public Sector Workers During Covid-19 Pandemic

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Abstract

The unexpected condition caused by coronavirus disease (Covid-19) in late December 2019 that spread all over the world has changed the human resource workforce. One of the Indonesian government decisions to reduce the infection is home base teleworking (working from home) policies for mostly all sectors in Indonesia, one of them is the public sector. This new work style that has never been experienced before may cause psychological stress of workload and affect satisfaction. This research aims to measure the effects of teleworking on job satisfaction mediated by the workload in 168 public sector workers all over Indonesia. Data obtained using an online questionnaire from February – March 2020 and analyzed use Smart-PLS software. The result showed that teleworking has a significant effect on the workload, but not significant effect on job satisfaction. Workload has a negative and not significant effect on job satisfaction. Hence, the workload is not the best predictor for mediating the effect of teleworking and job satisfaction. Workers in the public sector feeling more stressed during teleworking and it caused their job satisfaction to decrease. This kind of situation can be a sign for the decision-maker on how to improve their worker's job satisfaction during the teleworking.

Keywords

Job Satisfaction; Teleworking; Workload Balance; Covid-19

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Introduction

Teleworking widely used as a global policy to protect society from the spread of coronavirus disease (Covid-19) since the end of 2019. Indonesia is the highest confirmed cases of Covid-19 in Southeast Asia, with 63.749 cases (data on the 5th July 2020 by Covid-19 Dashboard of CSSE by Johns Hopkins University). Due to the increasing cases, in February 2020

Indonesian government issued a policy to home-based teleworking (working from home) and avoid people gathering together at the same place. Teleworking is a work arrangement in which employees perform their regular work at a site other than the ordinary workplace with supporting technological connections (Fonner & Roloff, 2010; Nakrošienė, Bučiūnienė, & Goštautaitė, 2019).

Teleworking has been referred to as telecommuting, remote work, Flexi work, working from home, and other terms (Allen, Golden, & Shockley, 2015). Teleworking has been investigated concerning work-related outcomes, one of them is job satisfaction.

The concept of teleworking is still questionable, especially working from home concept, is it a good work or a bad work (Gajendran & Harrison, 2007), (A. M. Dockery & Sherry Bawa, 2014). Teleworking allows workers to work at home using requires technologies to connect (Belzunegui-Eraso & Erro-Garcés, 2020). Studies suggest that developing countries (as Indonesia) have growing cases of non-standard working time arrangements (A. M. Dockery & Sherry Bawa, 2014), especially during teleworking or flexible working. This may cause work overload (workload) and increasing job stress related to job satisfaction. Workload and work pressure is one of several factors that restrict use in the concept of telework (Downes & Koekemoer, 2011). Workload caused stress and decreases job satisfaction (Liu & Lo, 2018). Workload related to the psychological job stress and have strongest relation with frustration and anxiety. During teleworking, sometimes workers bring their work and can not make a work arrangement that caused long work hours. Workload affect psychologically and mentally for the workers, and caused decreasing job satisfaction.

Inconsistent findings reported by several researchers. Telework is positively affected job satisfaction (Gajendran & Harrison, 2007; Hsu et al., 2019). However, Golden & Veiga (2005) suggest that not all frequencies of teleworking related to job satisfaction. Based on this research gap, the first objective of this research is to investigate

the direct effect of teleworking on job satisfaction. The second objective is to determine the indirect effect of teleworking on job satisfaction through workload balance. This study provides a theoretical and practical contribution. For theoretical contribution, this study provides a model explaining the relationship between teleworking, workload balance, and job satisfaction for public sector workers during a pandemic. For practical contributions, this research provides a deep understanding for the public sector to enhance their job satisfaction when doing teleworking with the workload balance management concept.

Literature Review

Teleworking on Job Satisfaction

The most commons studied the outcome of teleworking is job satisfaction. Technological advancements of interconnectivity allow employees to work anywhere during teleworking (Smith, Patmos, & Pitts, 2018). Teleworking offers many benefits such as increased job satisfaction (Gajendran & Harrison, 2007; Fonner & Roloff, 2010; and Hsu et al., 2019). However, when workers used to telework, they feel some disadvantages such as isolation and lack of interpersonal workplace relationships (Smith et al., 2018). Thus, this research proposed:

H1: teleworking has a positive direct effect on job satisfaction

The Mediating Effect of Workload

Workload refers to the intensity of job assignment and the work expected from a worker from a specific time of period (Inegbedion, Inegbedion, Peter, & Harry, 2020). The workload is a significant predictor that affect job satisfaction (Liu & Lo, 2018). (Lea, Corlett, & Rodgers, 2012)

found that increasing workload will decrease job satisfaction. Based on the literature review, three hypotheses were proposed:

H2: teleworking has a positive significant effect on workload

H3: workload has a positive direct effect on job satisfaction

H4: workload mediates the effect of teleworking on job satisfaction

Research Methods

This study uses a quantitative approach to describe the relationship between variables tested that is working from home on job satisfaction mediated by job stress. Data collection using an online questionnaire was distributed to 200 public sector workers all over Indonesia. A total of 187 questionnaires were returned and 168 valid responses were analyzed. The responses of respondents were collected based on a 5 point Likert scale. Data analyzed using Smart-PLS software.

The questionnaire was divided into two sections, demographic data of the respondent and the research variables such as teleworking, workload, and job satisfaction. Teleworking is the independent variable that has four indicators and 12 items using the telecommuting concept (Neufeld & Fang, 2005). The indicators are attitudinal aspect, social aspect, and situational aspect in resources and distractions while doing telecommuting. Workload using 5 items from the Quantitative Workload inventory by Spector & Jex (1998) using three indicator, that is numbers of hours worked, level of production, and mental demands of the work being performed. Job satisfaction using 5 items scale representing the global job satisfaction by (Pond & Geyer, 1991). The indicator are employee general affective reaction to the job (pay, co-workers), intrinsic job satisfaction, and organization control.

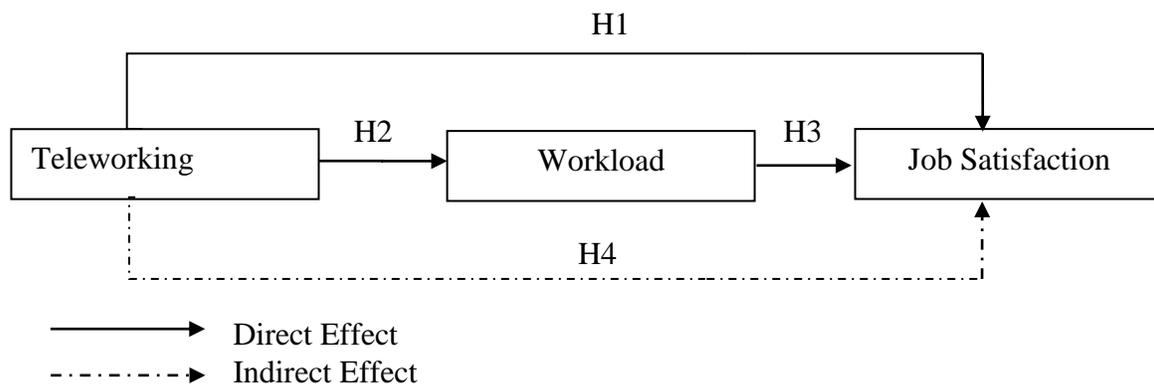


Figure 1. Conceptual Model

Result and Discussion

The following respondent description based on sample are: 61,9% are male, 73.2% are married, 42.5% are aged between 36 and 50.

Length doing home-based teleworking mostly since 1-2 month after teleworking policy. Table 1 summarized the demography of the respondent:

Table 1. Respondents Description

Particulars	Items	Frequency (N=168)	Percentage
Gender	Male	104	61.9%
	Female	64	38.1%
Age (years)	20 – 25	18	10.7%
	26 – 30	28	16.8%
	31 – 35	26	15.6%
	36 – 40	32	19.2%
	41 – 45	24	14.4%
	>46	39	23.3%
Marital Status	Married	123	73.2%
	Unmarried	45	26.8%
Tenure	1 – 5 years	31	18.5%
	6 – 10 years	23	13.7%
	11 -15 years	37	22%
	16 – 20 years	14	8.3%
	21 – 25 years	7	4.2%
	>25 years	32	19.1%
Length doing home-based teleworking	< 1 month	30	17.8%
	1 – 2 month	119	70.8%
	>2 month	19	11.3%

Source : obtained from primary data (2020)

In analyzing data using PLS, three steps of analysis were taken. They are outer model evaluation, inner model evaluation, and

hypotheses test. Sobel's test was conducted to test the mediating effect of workload.

Table 2. Outer Loading and Convergent Validity

Construct	Indicator	Outer Loading	Description
Teleworking (TEL)	TEL01 (attitudinal aspect)	0.937	Valid
	TEL02 (social aspect)	0.792	Valid
	TEL03 (situational aspect)	0.876	Valid
	TEL04 (distraction)	0.937	Valid
Workload (WL)	WL01 (number of hours worked)	0.842	Valid
	WL02 (level of production)	0.926	Valid
	WL03(mental demands of the work)	0.892	Valid
Job Satisfaction (JS)	JS01 (general affective reaction to the job)	0.734	Valid
	JS02 (intrinsic job satisfaction)	0.849	Valid
	JS03 (organization control)	0.851	Valid

Source : obtained from primary data (2020)

Outer model evaluation was conducted by test the convergent validity, discriminant validity, and unidimensionality. Inner model evaluation was conducted by investigating the score of the coefficient of determination

(R²), predictive relevance (Q²), and Goodness of Fit (GoF). Hypotheses testing using the level of 5 %. The score of outer loading reflects the convergent validity. The score loading ideally above 0.7 (Chin,

2010). The second estimation showed that there are no items having outer loading below 0.5 and showed that there are no convergent validity problems detected.

Discriminant validity testing is done by comparing the AVE roots on correlations

between latent variables. Valid declared if the result states greater AVE roots than the results of the correlation between latent variables. The test results are stated in the table 3:

Table 3. Dicriminant Validity

Variable	AVE	\sqrt{AVE}	Correlation between variables			Description
			TEL	WL	JS	
Teleworking (TEL)	0.788	0.887		0.988	0.04	Valid
Workload (WL)	0.781	0.883			0.02	Valid
Job Satisfaction (JS)	0.661	0.813				Valid

Source : obtained from primary data (2020)

Based on the three variables (teleworking, workload, and job satisfaction), it can be seen that the value of AVE roots is higher than the correlation value of variability

variables, so that it is concluded that it fulfills the discriminant validity test. The instrument reliabililty measurement can be seen in table 4 below:

Table 4. Composite Reliability

Variable	Composite Reliability	Description
Teleworking (TEL)	0.936	Reliable
Workload (WL)	0.914	Reliable
Job Satisfaction (JS)	0.853	Reliable

Source : obtained from primary data (2020)

The score of composite reliability ideally above 0.7 (Chin, 2010). The test results state that all composite composite values are at a value > 0.7 , then the reliability is met. So that all indicators can be used as a

measurement tools. PLS testing is carried out with several steps, including the evaluation of the outer-model, Goodness-of-Fit model, and the inner-model.

Table 5. Outer-Model Measurement

Construct	Indicator	Outer Loading	T-statistic	P-value	Description
Teleworking (TEL)	TEL01	0.937	67.998	0.000	Significant
	TEL02	0.792	16.208	0.000	Significant
	TEL03	0.876	28.273	0.000	Significant
	TEL04	0.937	68.012	0.000	Significant
Workload (WL)	WL01	0.842	20.999	0.000	Significant
	WL02	0.926	42.912	0.000	Significant
	WL03	0.892	39.022	0.000	Significant
Job Satisfaction (JS)	JS01	0.734	3.404	0.000	Significant
	JS02	0.849	6.601	0.000	Significant
	JS03	0.851	6.415	0.000	Significant
Goodness of Fit = 0.953					

Source : obtained from primary data (2020)

The results of data testing show that teleworking indicators namely situational factors - distractions (TEL04) shows the highest value so it can be concluded that teleworking is dominated by situational factors - distractions. Workload indicator dominated by the level of production (WL02) and job satisfaction dominated by organizational control (JS03). The goodness of fit calculation shows a high value of 0.953 so that the feasible models have stated value predictive-relevance. The results of 95.3% illustrate the diversity of data that can be explained by the PLS model or the

information contained in the data can be explained by the model. While 4.7% is explained by other variables outside the variables studied.

Three hypotheses are proposed in this research. Table 6 summarized the hypotheses test of the direct effect of each variable. Teleworking have a significant effect on workload (H2). However, teleworking (H1) and workload (H3) does not have a significant effect on job satisfaction.

Table 6. Research Hypothesis Test of Direct Effect

Hypotheses	Path	Original Sample	T-statistic	P-Value	Results
H1	TEL → JS	0.915	1.223	0.222	Not Significant
H2	TEL → WL	0.988	301.779	0.000	Significant
H3	WL → JS	-0.878	1.142	0.254	Not Significant
H4	TEL → WL → JS	-0.877	-1.142	0.253	Not Significant

Source : obtained from primary data (2020)

The indirect effect is measured from one variable to another through mediating variables (workload). Testing is done by the Sobel procedure. The result showed that the

P-value is $-1.142 > 0.05$, so workload does not have a mediating effect between teleworking and job satisfaction.

Table 7. Research Hypothesis Test of Indirect Effect

Hypotheses	Path	T-statistic	P-Value	Results
H4	TEL → WL → JS	-1.142	0.253	Not Significant

Source : obtained from primary data (2020)

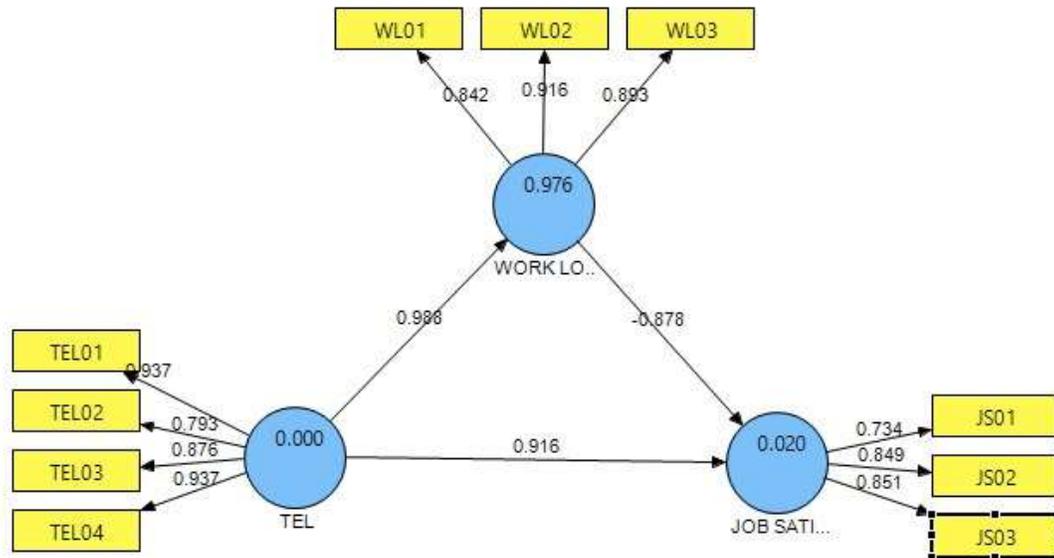


Figure 2. PLS Testing Result

Based on the studies that have been carried out, the findings of this study state that teleworking has a significant effect on the workload on public sector workers in Indonesia. This positive direct effect strengthen the study of Dockery & Sherry Bawa (2014), teleworking is seen by workers that provides flexibility and manages workload balance. During teleworking, workload increases but on the positive side, work can be done at home and the worker can maintain and have the autonomy to manage their workload. However, this affected long hours of working.

Teleworking has become a part of the government's policy to carry out daily work activities especially in the civil service. Teleworking is considered to be the right choice to prevent disease during working at

home and can be done with other jobs. Teleworking is more flexible than having to come to work. This is considered positive by public sector workers and has an impact on workload balance. The better the teleworking policy is implemented, the higher workload balance perceived by the workers.

Workload has a negative and not significant effect on job satisfaction. This insignificant effect is similar to the previous study conducted by De Cuyper & De Witte (2006; Lea, Corlett, & Rodgers, 2012; Liu & Lo, 2018) that found increasing workload will decrease job satisfaction. In general, workload balance is a condition that is felt by public sector workers to manage work with personal activities, relationships with family, and self-pleasure. The current pandemic causes workers doing extra work

because they have to be able to complete their work that was supposed to be done at work, work is brought home that has the effect of reducing family time and private time. This condition resulted in dissatisfaction felt by public sector workers in Indonesia.

Teleworking has a positive but not significant effect on job satisfaction. This finding is similar with the previous study conducted by Gajendran & Harrison, 2007; Hsu et al., 2019). Golden & Veiga (2005) study result that not all frequencies of teleworking related to job satisfaction also connecting with this study. Teleworking is considered the right choice when the current pandemic, but some circles assess this policy is not appropriate with the reason for the work or tasks that are charged require equipment such as tools that can only be accessed at the office so that it is considered inappropriate. This is interpreted as the enactment of teleworking made a small contribution to public sector worker's job satisfaction in Indonesia.

In this study, the indirect effect explains non-significant mediating effect of teleworking on job satisfaction. This result suggested that in order to increasing worker's job satisfaction, teleworking decision need good workload balance and can be mediated by other related job strain and job stress dimension. Upon the completion of this study, some contribution are provided. First, this study proposed a conceptual model explaining the relationship between teleworking (especially home-based teleworking), workload (one of the predictor in job stress study), and job satisfaction which is rarely studied (especially during pandemic in Indonesia). The second contribution is about validate the previous study about the effect of teleworking and workload on job satisfaction directly and indirectly.

Conclusion, Limitation and Recommendation

In some previous researches, the variable of teleworking is stated to be able and give positive impacts on job satisfaction. Through this study, the confirmation and explanation about this case strengthen the existing concept between teleworking on job satisfaction using the mediating role of workload. Teleworking has significant effect on workload. However, workload has not significant effect directly and indirectly on job satisfaction for workers in Indonesian public sector.

This study has limitations about the generalizability of samples in Indonesia public sector workers. Hence, the sample does not cover the whole workers in Indonesia public sector. The future study can replicate this model to other sectors. We recommend for the upcoming study to develop at a different form of job stress indicator such as psychological and subjective well-being and quality of work life during teleworking (Flexi work, remote work, or working from home) on employee job satisfaction that can affect employee productivity and performance.

Notes on Contributors

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References

- A. M. Dockery, & Sherry Bawa. (2014). Is Working from Home Good Work or Bad Work? Evidence from Australian Employees*. *Australian Journal of Labour Economics*, 17(2), 163–190.
- Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest*, 16(2), 40–68. <https://doi.org/10.1177/1529100615593273>
- Belzunequi-Eraso, A., & Erro-Garcés, A. (2020). Teleworking in the Context of the Covid-19 Crisis. *Sustainability*, 12(9), 3662. <https://doi.org/10.3390/su12093662>
- Chin, W. W. (2010). Handbook of Partial Least Squares. In *Handbook of Partial Least Squares*. <https://doi.org/10.1007/978-3-540-32827-8>
- De Cuyper, N., & De Witte, H. (2006). Autonomy and workload among temporary workers: Their effects on job satisfaction, organizational commitment, life satisfaction, and self-rated performance. *International Journal of Stress Management*, 13(4), 441–459. <https://doi.org/10.1037/1072-5245.13.4.441>
- Downes, C., & Koekemoer, E. (2011). Work-life balance policies: Challenges and benefits associated with implementing flexitime. *SA Journal of Human Resource Management*, 9(1), 1–13. <https://doi.org/10.4102/sajhrm.v9i1.382>
- Fonner, K. L., & Roloff, M. E. (2010). Why teleworkers are more satisfied with their jobs than are office-based workers: When less contact is beneficial. *Journal of Applied Communication Research*, 38(4), 336–361. <https://doi.org/10.1080/00909882.2010.513998>
- Gajendran, R. S., & Harrison, D. A. (2007). The Good, the Bad, and the Unknown About Telecommuting: Meta-Analysis of Psychological Mediators and Individual Consequences. *Journal of Applied Psychology*, 92(6), 1524–1541. <https://doi.org/10.1037/0021-9010.92.6.1524>
- Golden, T. D., & Veiga, J. F. (2005). The impact of extent of telecommuting on job satisfaction: Resolving inconsistent findings. *Journal of Management*, 31(2), 301–318. <https://doi.org/10.1177/0149206304271768>
- Hsu, Y. Y., Bai, C. H., Yang, C. M., Huang, Y. C., Lin, T. T., & Lin, C. H. (2019). Long Hours' Effects on Work-Life Balance and Satisfaction. *BioMed Research International*, 2019. <https://doi.org/10.1155/2019/5046934>
- Inegbedion, H., Inegbedion, E., Peter, A., & Harry, L. (2020). Perception of workload balance and employee job satisfaction in work organisations. *Heliyon*, 6(1), e03160. <https://doi.org/10.1016/j.heliyon.2020.e03160>
- Lea, V. M., Corlett, S. A., & Rodgers, R. M. (2012). Workload and its impact on community pharmacists' job satisfaction and stress: A review of the literature. *International Journal of Pharmacy Practice*, 20(4), 259–271. <https://doi.org/10.1111/j.2042-7174.2012.00192.x>

- Liu, H. L., & Lo, V. hwei. (2018). An integrated model of workload, autonomy, burnout, job satisfaction, and turnover intention among Taiwanese reporters. *Asian Journal of Communication*, 28(2), 153–169. <https://doi.org/10.1080/01292986.2017.1382544>
- Nakrošienė, A., Bučiūnienė, I., & Goštautaitė, B. (2019). Working from home: characteristics and outcomes of telework. *International Journal of Manpower*, 40(1), 87–101. <https://doi.org/10.1108/IJM-07-2017-0172>
- Neufeld, D. J., & Fang, Y. (2005). Individual, social and situational determinants of telecommuter productivity. *Information and Management*, 42(7), 1037–1049. <https://doi.org/10.1016/j.im.2004.12.001>
- Pond, S. B., & Geyer, P. D. (1991). Differences in the relation between job satisfaction and perceived work alternatives among older and younger blue-collar workers. *Journal of Vocational Behavior*, 39(2), 251–262. [https://doi.org/10.1016/0001-8791\(91\)90012-B](https://doi.org/10.1016/0001-8791(91)90012-B)
- Smith, S. A., Patmos, A., & Pitts, M. J. (2018). Communication and teleworking: A study of communication channel satisfaction, personality, and job satisfaction for teleworking employees. *International Journal of Business Communication*, 55(1), 44–68. <https://doi.org/10.1177/2329488415589101>
- Spector, P. E., & Jex, S. M. (1998). *Workload inventory* . 3(4), 356–367.