

EFFECT OF WORK-RELATED ICTS USE AFTER HOURS ON WORK-FAMILY BALANCE AND MEDIATING ROLES OF JOB BURNOUT: EVIDENCE FROM TEACHERS IN INDONESIA

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ABSTRACT

This study aims to identify the correlations between work-related ICTs use after hours (WIAH), work-family balance, and the possible role that job burnout plays as a mediator between these relations by examining the relationships between these three factors among 409 teachers in Indonesia. Each relationship between WIAH and job burnout and the relationship between WIAH and work-family balance can be identified as a significant positive relationship. However, there is a significant negative relationship between job burnout and work-family balance. Furthermore, when job burnout acts as a mediator, the correlation between WIAH and work-family balance becomes significantly negative. This study makes a contribution to research by developing an improved research model of how the relationship of WIAH and work-family balance and how job burnout mediates the relationship between these two factors. Secondly, the findings corroborated key aspects of the mediation model of job burnout.

Keywords: Teachers, work-related ICTs use after hours, job burnout, work-family balance

1. INTRODUCTION

The use of information and communication technologies (ICTs) has become increasingly prevalent in the global education system, including in Indonesia has been shown to foster an environment that is conducive to innovative thinking in schools (Bauwens et al., 2020). During the pandemic in Indonesia, both teachers and students were forced to adapt to online learning. Starting in February 2022 hybrid learning was conducted as an option in terms of face-to-face and online learning using ICTs (Indonesia Ministry of Education, Culture, 2022). ICTs let teachers create and distribute course websites that students may access from their web browsers or mobile devices and use to further their education. Teachers can use ICTs to stay in touch with students, parents, peers, and supervisors even after school hours, expanding the opportunities for collaboration and support (Braukmann et al., 2018; Yang et al., 2019). The organization expects teachers to be available during off-work hours, operating under the presumption that increased work-related use of ICTs after hours (WIAH) can lead to increased overall productivity (Barber & Santuzzi, 2015). Despite the fact that WIAH boost productivity, as a direct result of this, the mental and physical boundaries that separate different aspects of life are dissolving, and this has led to teachers suffering from burnout on the job (Dén-Nagy,

2014; Derks et al., 2016), to the point that it is becoming increasingly difficult to balance work and personal responsibilities (Boswell & Olson-Buchanan, 2007).

Questions pertaining to work-family balance, the theoretical relationship between WIAH, the equilibrium between teacher's work and family responsibilities, and job burnout are still up for debate (Bauwens et al., 2020; Braukmann et al., 2018; Derks et al., 2016; Park et al., 2020). Previous study conducted by (Derks et al., 2014) and (Đuranová & Ohly, 2015) have revealed that increasing teachers' workload by using a WIAH has a detrimental effect on factors such as job burnout, work stress, and the ability to maintain a healthy work-family balance. In some other research, WIAH has a beneficial effect on work-family balance. More freedom to set teachers' own schedules and more opportunities to innovate and improve workplace efficiency, productivity, and adaptability. Modularity helps maintain a healthy work-family balance (Xie et al., 2018).

Furthermore, we believe that there has been insufficient study of this topic in Indonesia. We can all agree that advances in technology have had an impact on the age-old issue of how to best combine work and family life. In spite of this, the majority of studies examining the connection between WIAH, work-family balance, and job burnout have been undertaken in the West or other developed countries. In developing countries like Indonesia, it is unclear how teachers' use of ICTs after work hours impacts their ability to make balance between work and family responsibilities and it makes potential negative consequences like job burnout.

The contradiction between findings and for the purpose of filling the gap previously identified motivated us to conduct further research about the relationships between WIAH, work-family balance, and the possible role that job burnout plays as a mediator between these relationship among 409 teachers in Indonesia. Moreover, the intention of this study was also to evaluate the mediation model's ability to predict work-family balance, and to evaluate whether or not it could be applied to after-hours ICTs use for work purposes. The findings corroborated key aspects of the mediation model of job burnout. The results of this study can contribute to the development of the theory of work-related ICTs use after hours, work-family balance, and job burnout for teachers.

2. RESEARCH METHODOLOGY

2.1. Participants and Procedure

Teachers from all levels of Indonesia's education system were surveyed for our study's empirical analysis. This data was gathered through the use of an online survey (a Google form) promoted across various social media and messaging apps. For this investigation, we collected a total of 409 valid responses were distributed between 12 August to 10 October, 2022. Before taking part in this study, all participants were given a thorough explanation of the study background, its goals, and its relevance. We translated the scales from English into Indonesian using the translation and back-translation technique.

2.2. Measures

Work-related ICTs use after hours was assessed with a four-item scale by Derks et al. (2016). All items were rated on a five-point scale chart ranging from strongly disagree to strongly agree. Credible evidence of reliability and validity was found for this instrument. An example item was "these days, I often use ICTs to teaching and communicate with student even after work."

Job burnout was assessed with four-item scale by Maslach & Jackson (1981). All items were rated on a five-point scale chart ranging from strongly disagree to strongly agree. Credible evidence of reliability and validity was found for this instrument. An example item was "I feel emotionally drained because of my work."

Work-family balance was assessed with three-item scale by Grzywacz & Carlson (2007). All items were rated on a five-point scale chart ranging from strongly disagree to strongly agree. Credible evidence of reliability and validity was found for this instrument. An example item was "I am satisfied at balancing my work and my family life."

3. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

3.1. WIAH and Job Burnout

We describe how resource variables and demand variables at job impact work-family balance by referring to the JD-R framework (Bakker & Demerouti, 2014). It has been argued that job demands are more often the cause of difficulties than a source of stress in the workplace. However, when teachers must exert a great deal of effort to maintain the level of performance that is required of them, job demands can become stressors and lead to undesirable outcomes like job burnout (Ninaus et al., 2021). Teachers are at risk for stress and job burnout due to the increased time and effort they must commit to their work outside of school hours as a result of WIAH, which creates additional job demands or needs knowledge linked to school activities (Ragsdale & Hoover, 2016).

According to several empirical research, WIAH has been linked to an increase in the risk of psychological symptoms, such as burnout, in the workforce (Bauwens et al., 2020; Lee et al., 2021; Xie et al., 2018). The claim from (Day et al., 2010) suggests that WIAH contributes to job burnout. It's possible that during non-work hours, teachers will need to provide students or peers with work-related comments or directions, or they may need to complete a job assigned to them by their supervisor. This convenience may lead to more work and thought time, which in turn may increase job demand and increase the risk of job burnout (Bakker & Demerouti, 2007). While it's true that teachers who use WIAH appear to be more productive right now, this practice may have negative consequences for schools in the long run, such as an increase in teachers' desire to leave due to job burnout (Ferguson et al., 2016). The above reasoning served as the foundation for our next hypothesis, which is as follows:

H1: WIAH has significant positive related to job burnout.

3.2. WIAH and Work-Family Balance

Researchers are becoming more interested in determining the extent to which employees' WIAH has an impact on their well-being in their other roles and responsibilities in their work and family life (Andrade & Matias, 2021; Ninaus et al., 2021). Teachers' use of WIAH allows them to feel always connected to work, which is linked to an increase in teachers' always-on mentality and organizations' expectations of teachers' availability outside of school hours (Derks et al., 2016). As a result, the boundaries that are used to separate different aspects of life are dissolving, and the conflict between work and family is growing (Bauwens et al., 2020). The rising of WIAH has made the challenge of balancing the responsibilities of work and family even more important (Chernyak-Hai & Tziner, 2016). In light of this, the third hypothesis is as follows:

H2: WIAH has significant negative related to work-family balance.

3.3. The Mediating Role of Job Burnout between WIAH and Work-Family Balance

A possible mediator with grounds in the workplace is job burnout, the cumulative result of long-term stress brought on by WIAH. As a result, it will affect work-family balance (Stroebe & Missler, 2016). A number of research that were carried out within the framework of the JD-R model came to the conclusion that job burnout acts as a mediator in the links that exist between various kinds of job demands and job resources (Tu et al., 2021). WIAH affects participation in family time. When comparing teachers with and without high levels of WIAH, we find that the former report more work-home interference while the latter participate less in family activities (Zhang et al., 2021). They will have less time to relax or spend with their families if they use ICTs to get their work done outside of normal working hours. As a result, teachers are more likely to feel job burnout (Park et al., 2020). When teachers utilize work-related information and communication technologies outside of working hours, they will experience job burnout. Teachers' job burnout, according to studies by (Derks et al., 2016), may cause teachers to be more strategic in spending their time and energy away from their family. This disrupts teachers' ability to strike a healthy work-family balance.

Putting all of this information together (Figure 1), WIAH will first indicate job burnout, and the second will indicate a lack of work-family balance. Therefore, job burnout mediates the relationship between WIAH and an unhealthy work-family balance. Therefore, the following is put out for hypothesis:

H3: Job burnout mediates the relationship between WIAH and work-family balance.

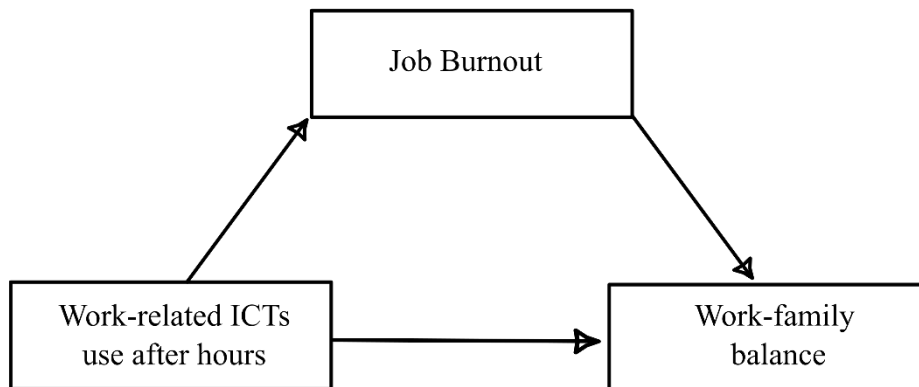


Figure 1. Research Framework

4. RESULTS AND DISCUSSION

4.1. Demographic Information

Table 1 presents the sample's demographic data, which are classified into four broad categories.

4.2. Validity and Reliability Assessment

Before testing the hypothesized relationships, the reliability and validity of each construct were examined. Validity and reliability of the multi-item measures were examined prior to PLS-SEM estimation (Hair et al., 2019). Each variable was analyzed and plotted to confirm reliability and validity, as suggested by (Hair et al., 2019) who state that a model's Cronbach's alpha, rho_A, and composite reliability (CR) values and loading factor (LF) for each items should be 0.7 or above, while for the average variance extracted (AVE) value should be 0.5 or above. Table 2 shows that the first order measurement model employed to assess the constructs of Cronbach's alpha, rho_A, and composite reliability values and loading factor values above 0.70, and also AVE values above 0.50, thereby fulfilling the convergence reliability and validity requirements (Hair et al., 2019).

4.3. Discriminant Validity Assessment

To evaluate discriminant validity, (Henseler et al., 2015) proposed an alternative method based on the HTMT (Multitrait-Multimethod Matrix). This method of evaluating discriminant validity is novel. For the purpose of determining the discriminant validity of our investigation, we used the HTMT. Calculating the HTMT is as simple as averaging the correlations between items measuring different constructs and dividing by the (geometric) mean of the average correlations for items measuring the same construct. If the value of the HTMT < 0.90, then the requirements for the evaluation of discriminant validity with the HTMT have been met (Henseler et al., 2015). Table 3 presents the

Table 1. Demographic characteristic of respondent

Gender	f		%		Age (year)	f		%		Education	f		%		Marital Status	f		%	
Male	97	23.72	20-30	96	23.47	Diploma	5	1.22	Married	396	96.82								
Female	312	76.28	31-40	97	23.72	Bachelor	311	76.04	Not Married	13	3.18								
			41-50	101	24.69	Master	91	22.25											
			>50	115	28.12	Ph.D.	2	0.49											

Table 2. Convergent validity and reliability assessment

Variable	Items	LF	Cronbach's alpha	rho_A	CR	AVE
Work-related ICTs use after hours	WIA2	0.800	0.804	0.828	0.882	0.714
	WIA3	0.893				
	WIA4	0.840				
	JB1	0.892	0.913	0.923	0.938	0.792
Job burnout	JB2	0.902				
	JB3	0.867				
	JB4	0.899				
Work-family balance	WFB1	0.884	0.834	0.878	0.899	0.748
	WFB2	0.917				
	WFB3	0.788				

HTMT value of each construct. Since the HTMT value in this study is less than 0.90, it fulfills the requirements for discriminant validity.

Table 3. Discriminant validity

	Job burnout	Work-family balance	Work-related ICTs use after hours
Job burnout			
Work-family balance	0.134		
Work-related ICTs use after hours	0.277	0.283	

Table 4. Path coefficients

Hypotheses	Relationship	Path coefficients	Standard deviation	T statistics	P values	Information	Conclusion
H1	WIA → JB	0.247	0.053	4.675	0.000	significant and positive	supported
H2	WIA → WFB	0.295	0.050	5.902	0.000	significant and positive	not supported

Table 5. Mediation testing

Hypothesis	Relationship	Original sample	Standard deviation	T statistics	P values	conclusion
H3	WIA → JB → WFB	-0.048	0.015	3.214	0.001	supported

4.4. Hypotheses Testing

The t-statistics, p-values, and confidence intervals for the paths between variables were obtained using the bootstrapping method in SmartPLS 4 (Hair et al., 2019). Table 4 displays the t-statistics, p-values, and confidence intervals for the direct effect and total impacts of the various relationships in the conceptual model. However, the information for mediation testing can be found in Table 5.

According to Table 4, if the T-statistic > 1.96 and the P-Value < 0.05, we can state that there is a statistically significant relationship between the variables. According to Table 5, we can draw the conclusion that WIAH has indirect negative effect on (-0.048), with T-statistics > 1.96 and P-value < 0.05. This shows that job burnout plays a significant role as a variable that mediates the effect of WIAH on work-family balance. Because WIAH are significant (P < 0.05) on work-family balance, job burnout is partial mediation.

5. CONCLUSION

In this study, we investigated the relationships between WIAH, work-family balance, and the role that burnout plays as a mediator between these relationships. The results of the study provide useful insights for further theory development and investigation in this field.

The analysis results can be summed up as follows, first, this study demonstrated that using WIAH was associated with a statistically significant positive relation on job burnout. Therefore, it was concluded that teachers who used WIAH were more likely to experience job burnout and were more reliable indicators of job burnout. Second, WIAH was associated with statistically significant positive relation to work-family balance. Because of the convenience of WIAH, some teachers may bring their tasks home and finish them after the end of the regular work day. One possible explanation for teachers' positive perceptions on WIAH is that they are unaware of the negative impact that such practices have on teachers' ability to maintain a healthy work-family balance. The third finding, that job burnout mediates the relationship between WIAH and work-family balance, is the most interesting finding in this study. According to the findings of this study, when job burnout acts as a mediator, the correlation between WIAH and having a healthy work-family balance becomes significantly negative. This suggests that the existence of burnout as a mediator variable modifies the direct positive relation of WIAH on work-family balance to a negative relation.

6. RESEARCH IMPLICATIONS

Our research results have numerous theoretical implications. Consistent with prior studies, we found that WIAH was associated with increased job burnout and decreased a healthy work-family balance. First, since we found a significant positive correlation between WIAH and burnout, this may aid in understanding about the different studies have reached different conclusions about this topic. Second, our research shows that WIAH is positively correlated with having a healthy work-family life balance. Our questions about their relationship to one another have been satisfactorily answered. This is due to contradictions in the findings of prior studies. Furthermore, third, the fundamental components of the mediation model of job burnout can be better understood in light of our result that burnout moderates the positive association between WIAH and work-family balance, and changing it to a negative relationship. The final implication, the results of this study can contribute to the development of the theory of WIAH, work-family balance, and job burnout for teachers.

There are crucial practical implications for understanding the connections between teachers' WIAH, their ability to maintain a work-family balance, and their rates of burnout. It would be helpful for organizations to learn how teachers' use of personal computers, smartphones, and other WIAH affects their ability to maintain a healthy work-family balance, particularly on nights and weekends when teachers would otherwise have more time for leisure activities (Park et al., 2020). A deeper comprehension of how to strike a healthy balance between work and family responsibilities. Organizations may be able to implement regulations that improve work-family balance if they consider the negative effects of increased connectivity to the workplace, such teacher burnout (Wright et al., 2014). By focusing on Indonesia, our research adds another country to the list of those studied in the field of work-family balance. We conducted our study in a scholarly setting, which has been little investigated previously. We think our study has global implications because our findings are consistent with those of many other studies done in a Western society or developed country setting.

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