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Research article

Digital Resilience Mediation Model on the Influence of Teacher Self-Efficacy and Technostress on Teacher Well-Being

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Abstract

This study was prompted by the growing integration of digital technology in education, which may influence teacher well-being through psychological factors such as teacher self-efficacy, technostress, and digital resilience. The research aimed to investigate the effects of teacher self-efficacy and technostress on teacher well-being, as well as to assess whether digital resilience serves as a mediating variable. The study involved 212 high school teachers selected through simple random sampling, all of whom were active educators using technology in the learning process. A quantitative survey approach was employed, with data collected through adapted and validated scales measuring teacher self-efficacy, technostress, digital resilience, and teacher well-being. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings revealed that teacher self-efficacy significantly influenced both digital resilience and teacher well-being, while technostress also had a significant effect on teacher well-being. However, digital resilience did not significantly affect teacher well-being and did not mediate the relationship between teacher self-efficacy and technostress on teacher well-being. The study confirms that internal factors, particularly self-confidence, play a crucial role in supporting teacher well-being. In contrast, digital adaptation skills alone do not appear to contribute meaningfully without the presence of healthy psychological conditions and a supportive work environment. These findings highlight the importance of developing interventions that enhance teacher well-being by strengthening intrapersonal factors in the digital era.

Keywords: teacher well-being, teacher self-efficacy, technostress, digital resilience, secondary school teachers

1. Introduction

The development of education in the digital age has fundamentally changed the demands and roles of teachers, where mastery and utilization of digital technology have become an integral part of today's learning practices. Teachers in the digital age no longer function solely as conveyors of material, but also as facilitators of technology-based learning who are capable of managing digital platforms, designing interactive activities, and bridging academic interactions through complex digital systems (Nasa et al., 2024). This change in role requires teachers to continuously improve their professional competencies, including technological skills and adaptation to the dynamics of the digital learning environment, which, if not balanced with adequate organizational support and resources, can create additional workloads and significant psychological impacts (Sugiyanto et al., 2021). In this context, teacher well-being has become a central issue in contemporary education because it is directly related to teaching effectiveness, mental health, and teachers' professional commitment in facing the demands of the digital era.

In Indonesia, the challenges related to teacher well-being are becoming more increasingly complex, particularly for teachers working in Islamic secondary schools. Teachers in Islamic schools are not only expected to fulfill pedagogical and administrative standards similar to those in public schools, but they are also entrusted with moral and spiritual responsibilities as exemplars of Islamic values for their students. This dual responsibility places teachers under greater professional pressure, particularly as the demands of digitalized learning continue to grow rapidly while structural support, technological resources, and contextualized training remain insufficient (Helena & Sumanti, 2025). Furthermore, expectations from both schools and parents for teachers to serve as academic instructors as well as moral mentors further intensify their workload and emotional burden (Misbah et al., 2025).

Teacher well-being in the context of digital education does not merely refer to the absence of stress, but also encompasses positive psychological conditions such as job satisfaction, emotional stability, and a sense of professional meaning in performing the role of a teacher (Collie, 2014). Viac & Fraser (2020) describe teacher well-being as a multidimensional response to the cognitive, emotional, social, and health-related demands involved in teaching. In practice, teacher well-being is strongly affected by the balance between work demands, organizational support, and the

quality of social relationships within the school environment. In work settings, teacher well-being is shaped by both individual psychological resources and environmental factors, including working conditions and social interactions (Yuniasanti et al., 2024). Although the integration of technology offers pedagogical convenience, it also heightens the administrative workload, the demands of digital adaptation, and professional responsibilities that may deplete teachers' psychological resources (Ram & Kannaujiya, 2025).

These challenges are especially pertinent to Islamic secondary schools in Indonesia. Teachers in these schools often view professionalism and well-being not only through technical and performance lenses but also considering spiritual, relational, and meaningful aspects of education. Religious values and the concept of work as a form of service mean that teacher well-being depends not only on instrumental factors but also on the quality of social relationships and the significance of their role as educators (Pusvitasari et al., 2023; Tohirin & Nurfuadi, 2024). In Islamic education, well-being is also influenced by value-driven meaning, social ties, and institutional context (Pamukti et al., 2025). In such settings, adapting to digital technology doesn't automatically enhance teacher well-being, even for those with high self-efficacy. This prompts important questions about how much digital resilience truly impacts teacher well-being and whether it can serve as a psychological mechanism linking technostress and self-efficacy to well-being in Islamic schools (Panisoara et al., 2020; Sun et al., 2022). Although research on teacher well-being has increased, few studies combine technostress, self-efficacy, and digital resilience into a single model. Moreover, the mediating role of digital resilience remains underexplored, especially within the socio-religious context of Islamic schools. Psychological well-being is also affected by social support and coping strategies, highlighting the importance of both individual and environmental factors (Adyani et al., 2019). This reveals a significant research gap involving the integration of variables and the specific context of teacher well-being studies.

One of the primary sources of stress in digital education is technostress. This term describes stress caused by excessive, complicated, or invasive technology use at work (Ragu-Nathan et al., 2008). Technostress includes aspects such as techno-overload, techno-complexity, and techno-invasion, which have been shown to increase emotional exhaustion, lower job satisfaction, and impair teachers' work-life balance (Ram & Kannaujiya, 2025; Tarafdar et al., 2020). In the context of the Job Demands–Resources (JD-R) Model, technostress is considered a job demand that can drain psychological resources and harm teacher well-being if not offset by sufficient personal resources (Bakker & Demerouti, 2017).

However, teachers vary in their responses to digital pressures. Teacher self-efficacy, a key personal resource, influences how teachers interpret and handle work demands, including those related to digital tools. According to Bandura (1977) Social Cognitive Theory, self-efficacy is an individual's belief in their ability to organize and perform the actions needed to achieve specific outcomes. In education, this concept relates to teachers' confidence in their capacity to design, implement, and manage the learning process effectively (Tschannen & Woolfolk, 2001). Teachers with high self-efficacy generally feel more in control, assess technological challenges more adaptively, and show greater psychological resilience when facing work stress (Wang et al., 2024).

While high self-efficacy can be beneficial, it alone may not be enough to ensure teachers' well-being in the face of ongoing digital challenges. This need is addressed by digital resilience, which is an individual's ability and process to recognize digital risks, develop coping strategies, recover from technological stress, and perform effectively in demanding digital environments (Sun et al., 2022). In educational settings, digital resilience helps teachers adjust to technological changes in learning systems while maintaining their psychological health and professional performance.

According to Resilience Theory, resilience isn't always a direct predictor of well-being. Instead, it functions as an adaptive capacity, helping individuals survive and operate effectively under stress (Tugade & Fredrickson, 2004). In the context of the JD-R Model, digital resilience is regarded as a personal resource that can reduce the negative effects of digital work demands and strengthen other resources' impact on well-being. Several studies indicate that resilience may serve as an adaptive mechanism connecting work demands and well-being (Panisoara et al., 2020; Wang et al., 2024), although its mediating role specifically in digital stress among Islamic school teachers has yet to be examined.

So far, research on teacher well-being has mainly focused on general and non-religious educational settings (Collie et al., 2020; Tu et al., 2025; Wang et al., 2024). There is still limited research combining technostress, teacher self-efficacy, and digital resilience into a single model, especially among Islamic secondary school teachers in Indonesia. This highlights a conceptual gap concerning the mediating role of digital resilience and a population gap related to the socio-religious context in which teachers work.

Beyond its immediate effects, digital resilience might serve as a mediator between technostress and teacher well-being. According to the Job Demands–Resources (JD-R) Model, personal resources can help buffer the negative effects of job demands. In this case, digital resilience is anticipated to lessen the harmful impact of technostress on well-being by helping individuals adapt better to technological challenges.

Similarly, digital resilience may also mediate the relationship between teacher self-efficacy and teacher well-being. Teachers with high self-efficacy are more likely to develop adaptive capacities that allow them to cope with technological challenges, which in turn may enhance their well-being. Thus, digital resilience is expected to act as an intermediary mechanism linking personal resources to well-being.

This study investigates how technostress and teacher self-efficacy affect teacher well-being among Islamic secondary school teachers in Indonesia, with a focus on the mediating role of digital resilience. Grounded in the Job Demands–Resources Model, Social Cognitive Theory, and Resilience Theory, it aims to advance theoretical and empirical understanding of teacher well-being in the digital era. Additionally, the findings will offer practical insights for supporting teacher well-being in an Islamic educational context. Within the Job Demands–Resources (JD-R) Model framework, this study positions technostress as a job demand and teacher self-efficacy and digital resilience as personal resources that influence teacher well-being. The relationships among the variables in this study are illustrated in the figure 1.

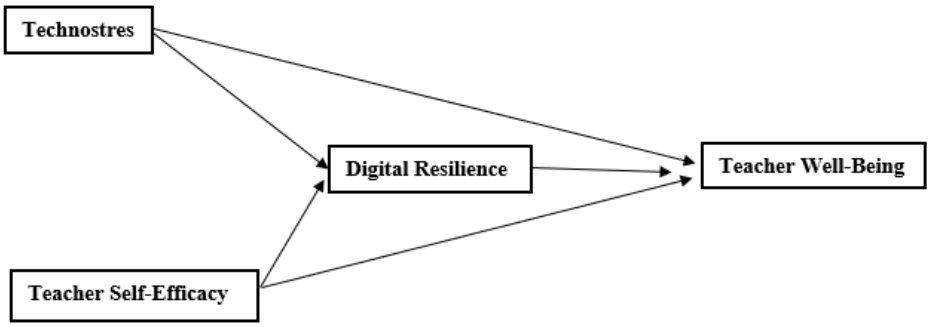

Figure 1. Conceptual Diagram

2. Research Methods

This study used a quantitative methodology. The population included 363 Islamic secondary school teachers in Banyumas Regency. Participants were selected randomly based on specific criteria: active teachers in Islamic secondary schools involved in teaching and administrative activities related to digital learning. According to the Krejcie and Morgan table, 212 teachers participated in the research. The sample comprised 76 males and 136 females, aged between 24 and 54 years, representing active teachers within the productive working age range.

Data collection was carried out offline by distributing printed questionnaires directly at the schools. Prior to collecting data, permission was obtained from school authorities. Participants were informed about the study's purpose and their rights through an informed consent form. Participation was voluntary, and responses were kept confidential by assigning anonymous codes. Ethical principles were upheld throughout the research process.

This study employed four measurement tools to evaluate teacher well-being, self-efficacy, technostress, and digital resilience. All tools used a five-point Likert scale from strongly disagree to strongly agree. The Teacher Well-Being Scale, adapted from Collie (2014), assessed teachers' well-being across three areas: workload, organizational support, and student interaction. It consisted of 40 items, such as "I am unable to complete all teaching tasks within the specified deadlines." This scale demonstrated good reliability with a Cronbach's alpha of .717. The Teacher Self-Efficacy Scale, based on Tschannen-Moran & Hoy, (2001), included 24 items covering three domains: student engagement, classroom management, and instructional strategies. An example item is "I can establish relationships with high school students who are difficult to approach." Its reliability was high, with a Cronbach's alpha of .925.

The Technostress Scale, adapted from Ragu-Nathan et al. (2008), includes 23 items across five dimensions: techno-overload, techno-invasion, techno-complexity, techno-insecurity, and techno-uncertainty. An example item is "Technology makes me work under greater time pressure." This

tool's reliability is indicated by a Cronbach's alpha of 0.907. The Digital Resilience Scale, adapted from Alhassan and De Klerk (2024), comprises 40 items measuring six dimensions: acceptance of self and life, personal competence, social competence, social resources, structured style, and positive emotions. An example item is "I prefer to improve my teaching methods going forward rather than continuing to regret past mistakes." Its reliability is reflected by a Cronbach's alpha of .911.

Data analysis was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. This approach was chosen because it is suitable for testing complex models with mediating variables, moderate sample sizes, and data that do not strictly follow a normal distribution. The analysis consisted of two main stages. The first involved evaluating the measurement model (outer model) by assessing convergent validity, discriminant validity, and construct reliability. The second stage focused on assessing the structural model (inner model) to examine the hypothesized relationships between variables. Path coefficients' significance was tested through bootstrapping with 5,000 resamples. A significance level of $p < .05$ and a 95% confidence interval were used for hypothesis testing.

3. Results and Discussion

3.1. Results

Outer Model Results

Validity testing involved assessing both convergent and discriminant validity. Convergent validity was determined using outer loading values, with indicators >.60 considered valid. Indicators >.70 were removed from the model since they did not meet the validity criteria (Hair et al., 2021).

Table 1. Outer Loading After Indicators Eliminated

Variables	Dimensions	Indicators	Outer Loading
Teacher Well-Being	Workload Well-Being	WWB2	.853
		WWB3	.868
		WWB7	.799
		WWB8	.797
	Organizational Well-Being	OWB14	.835
		OWB8	.902
		OWB9	.860
	Student Interaction Well-Being	SIW10	.887
		SIW11	.899
		SIW12	.835
		SIW 8	.795
		SIW 9	.825
Teacher Self-Efficacy	Student Engagement	SE1	.745
		SE2	.836
		SE3	.817
		SE4	.856
		SE5	.862
		SE6	.863
		SE7	.763
		SE8	.819
	Instructional Strategies	IS1	.848
		IS2	.845
		IS3	.801
		IS4	.835
		IS5	.843
		IS6	.809
		IS7	.864
		IS8	.799
	Classroom Management	CM1	.812
		CM2	.823
		CM3	.894
		CM4	.853
		CM5	.920
		CM6	.891
		CM7	.926
		CM8	.834

Variables	Dimensions	Indicators	Outer Loading
Technostress	Techno-Overload	TO1	.905
		TO2	.767
		TO3	.861
		TO4	.857
	Techno-Invasion	TI2	.705
		TI3	.883
		TI5	.888
	Techno-Complexity	TC1	.792
		TC3	.871
		TC4	.902
		TC5	.864
	Techno-Insecurity	TIN1	.830
		TIN2	.951
		TIN3	.860
		TIN4	.857
	Techno-Uncertainty	TU2	.847
		TU3	.953
		TU4	.957
		TU5	.863
Digital Resilience	Acceptance of self and life	AOSL1	.848
		AOSL2	.867
		AOSL3	.868
		AOSL4	.845
		AOSL5	.823
		AOSL7	.754
	Personal competence	PC2	.884
		PC3	.869
		PC4	.716
		PC5	.864
		PC6	.888
		PC7	.872
	Social competence	SC1	.907
		SC2	.907
		SC6	.732
	Social resources	SR1	.913
		SR2	.930
		SR3	.847
	Structured style	SS1	.831
		SS2	.850
		SS3	.902
		SS4	.909
		SS5	.895
		SS6	.903
		SS7	.882
	Positive emotions	PE1	.836
		PE2	.793
		PE3	.791
		PE4	.871
		PE5	.853
		PE6	.819

After conducting the convergent validity test, only indicators with outer loadings above .60 were kept in the model. The table displays the remaining indicators for each variable, with all factor loadings ranging from .716 to .957, which meets the feasibility threshold as per Hair et al. (2021). This demonstrates that each indicator effectively explains its construct. The Teacher Well-Being variable includes 12 indicators: WWB2, WWB3, WWB7, WWB8, OWB14, OWB8, OWB9, SIW10, SIW11, SIW12, SIW8, and SIW9. The Teacher Self-Efficacy variable comprises 24 indicators: SE1, SE2, SE3, SE4, SE5, SE6, SE7, SE8, IS1, IS2, IS3, IS4, IS5, IS6, IS7, IS8, CM1, CM2, CM3, CM4, CM5, CM6, CM7, and CM8.

The Technostress variable comprises 19 indicators, including TO1, TO2, TO3, TO4, TI2, TI3, TI5, TC1, TC3, TC4, TC5, TIN1, TIN2, TIN3, TIN4, TU2, TU3, TU4, TU5. The Digital Resilience variable includes 31 indicators such as AOSL1, AOSL2, AOSL3, AOSL4, AOSL5, AOSL7, PC2, PC3, PC4, PC5, PC6, PC7, SC1, SC2, SC6, SR1, SR2, SR3, SS1, SS2, SS3, SS4, SS5, SS6, SS7, PE1, PE2, PE3, PE4, PE5, PE6. After the elimination process, all remaining indicators satisfy the convergence validity criteria. Each construct is represented by indicators with a strong contribution, confirming that the measurement model is appropriate and aligns with Partial Least Squares (PLS) standards.

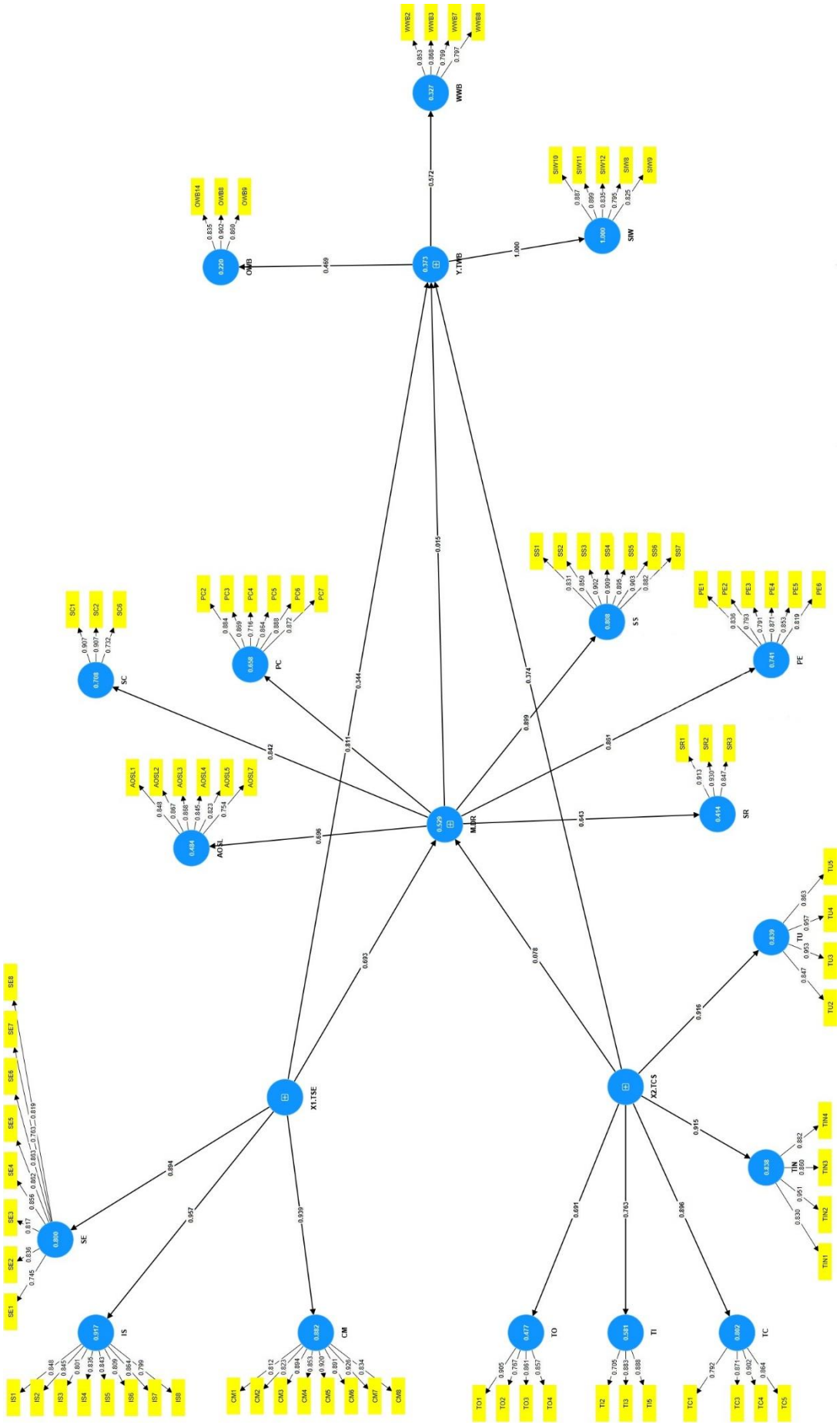

Figure 2. Outer Model: Loading Factor After Indicators are Eliminated

Table 2. Outer Model: Construct Validity and Reliability

Variable	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Digital Resilience	.911	.931	.694
Teacher Self Efficacy	.925	.953	.870
Technostress	.907	.931	.729
Teacher Well-Being	.717	.836	.631

The reliability test results indicate that all constructs in the model demonstrate good internal consistency. Cronbach's Alpha values ranged from .717 to .925, showing stable indicators for each variable. Additionally, the Composite Reliability (CR) values for all constructs fell between .836 and .953, reflecting strong and consistent composite reliability, making the constructs suitable for further analysis. These findings are supported by the Average Variance Extracted (AVE) values, all above the .50 threshold, ranging from .631 to .870, which means the indicators explain more than half of the variance of their respective constructs. Overall, these results confirm that the measurement tool has adequate quality and satisfies the convergent validity criteria recommended by Hair et al. (2021), ensuring its credibility for use in structural analysis.

Table 3. Heterotraid-Monotraid (HTMT)

Variable	Digital Resilience	Teacher Self Efficacy	Tecnostress	Teacher Well-Being
Digital Resilience				
Teacher Self-Efficacy	.836			
Technostress	.406	.408		
Teacher Well-Being	.674	.756	.654	

The analysis indicates that each indicator loads most strongly on the construct it measures, rather than on others. This confirms that each latent variable can differentiate itself from other variables, satisfying discriminant validity criteria (Ghozali, 2021). Additionally, discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). A construct is considered to have adequate discriminant validity if its HTMT value is below .90. As shown in Table 5, all HTMT values for each construct pair fall below this threshold. Thus, the measurement model in this study satisfies the overall requirements for discriminant validity.

Inner Model Results

The second phase of SmartPLS analysis involves testing the structural or inner model, aimed at predicting or illustrating causal (cause-and-effect) relationships between construct variables in the study. As shown in Figure 3, this stage includes bootstrapping to examine R-Square and F-Square values.

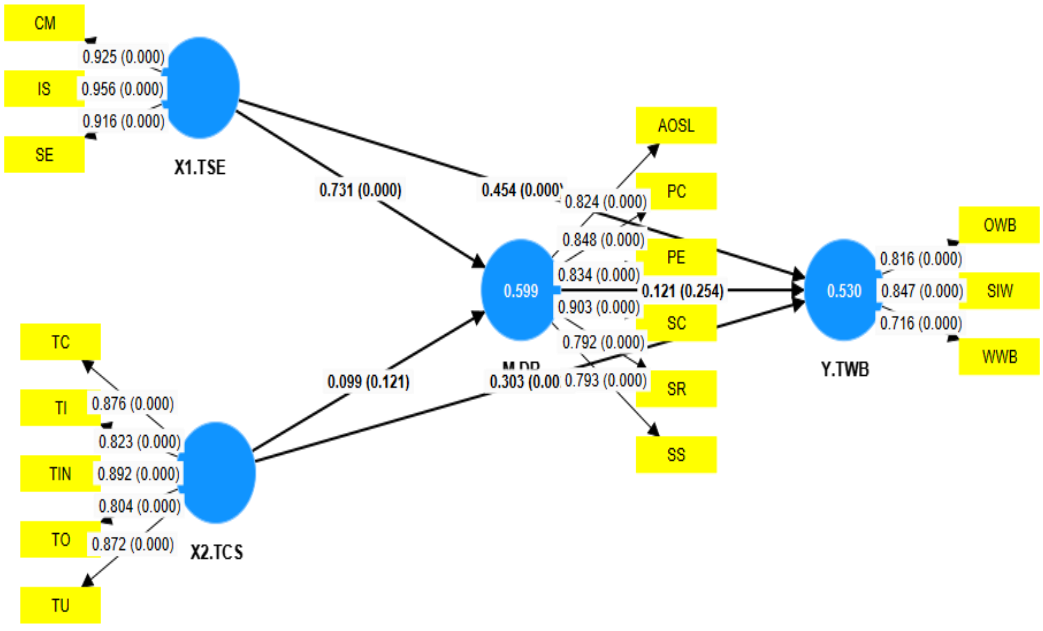

Figure 3. Inner Model: Bootstrapping

Tabel 4. Inner Model: R-square

Variable	R-square	R-square adjusted
Digital Resilience	.599	.595
Teacher Well-Being	.530	.523

The R-square for the structural model indicates that the Digital Resilience variable has an R^2 of .599, placing it in the moderate range. This suggests that Teacher Self-Efficacy and Technostress account for 59.9% of the variance in Digital Resilience. Similarly, Teacher Well-Being has an R^2 of .530, also within the moderate range, meaning that Teacher Self-Efficacy, Technostress, and Digital Resilience collectively explain 53% of the variation in teacher well-being. These R-square results demonstrate that the research model has sufficient explanatory ability and complies with PLS-SEM standards commonly used in psychological and educational research (Hair et al., 2021).

Table 5. Inner Model: F-Square

Variable	Digital Resilience	Teacher Self Efficacy	Technostress	Teacher Well-Being
Digital Resilience				.013
Teacher Self Efficacy	1.137			.175
Technostress	.021			.164
Teacher Well-Being				

Based on the F-square analysis results, the contribution of each construct in the model varies quite distinctly. Teacher Self-Efficacy has the largest impact on Digital Resilience, with an F-square value of 1.137—considered large—highlighting that teachers' confidence in their professional abilities is the most influential factor in developing digital resilience. In contrast, Technostress has a negligible contribution to Digital Resilience (.021), and Digital Resilience's effect on Teacher Well-Being is also small (.013), both indicating weak influence within the model. However, Teacher Self-Efficacy and Technostress exert a moderate impact on Teacher Well-Being, with values of .175 and .164 respectively, showing that both are important predictors of teacher well-being, even though Teacher Self-Efficacy has limited effect on digital resilience. Overall, the findings confirm that Teacher Self-Efficacy is the most pivotal construct, while Digital Resilience has minimal influence on other variables.

Path Analysis Results

To test the structural relationships among variables in the research model, path analysis was conducted using PLS-SEM. The results of testing the direct and indirect effects among variables are presented in Table 10.

Table 6. Direct- Indirect Effect Path Analysis For Hypothesis-Testing

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Digital Resilience→Teacher Well-Being	.121	.117	.106	1.141	.254
Teacher Self Efficacy→Digital Resilience	.731	.729	.049	14.993	.000
Teacher Self Efficacy→Teacher Well-Being	.454	.458	.103	4.409	.000
Technostress→Digital Resilience	.099	.104	.064	1.550	.121
Technostress→Teacher Well-Being	.303	.307	.100	3.033	.002

Path analysis results reveal the strength and direction of relationships between variables in the structural model. The original sample (O), t-statistic, and p-value are used to assess the significance of these relationships. The PLS-SEM analysis shows that digital resilience does not significantly affect teacher well-being (O = .121; p = .254), indicating that teachers' digital adaptation abilities do not have a direct impact on their well-being. In contrast, teacher self-efficacy significantly influences digital resilience (O = .731; p = .000) and teacher well-being (O = .454; p = .000), highlighting the importance of teachers' confidence in enhancing both areas. Additionally, technostress does not significantly impact digital resilience (O = .099; p = .121), suggesting that stress from technology use is not directly related to digital adaptation. However, technostress significantly affects teacher well-being (O = .303; p = .002), implying that increased technological pressure correlates with decreased well-being. Overall, the most influential variable is teacher self-efficacy on digital resilience, while the relationships between digital resilience and teacher well-being and between technostress and digital resilience are not statistically significant.

The analysis indicates that digital resilience does not serve as a mediating factor in the research model. The mediation effect between teacher self-efficacy and teacher well-being is not statistically significant (β = .089; p = .254), suggesting that self-efficacy influences well-being directly.

Likewise, the mediation effect of technostress on teacher well-being is also insignificant (β = .012; p = .432). Therefore, digital resilience does not function as an intermediary in either of these relationships.

Table 7. Total Indirect Effects

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Teacher Self Efficacy→Digital Resilience→Teacher Well-Being	.089	.084	.078	1.140	.254
Technostress→Digital ResilienceTeacher Well-Being	.012	.012	.015	.785	.432

3.2. Discussion

Digitalization has become a core aspect of contemporary education, requiring teachers to proficiently incorporate technology into their daily teaching practices. This integration broadens access to learning, enhances teaching efficiency, and shifts teachers' roles toward becoming facilitators who oversee digital resources, online communication, and platform-based assessments (Dolighan & Owen, 2021). Numerous studies indicate that digitization fosters pedagogical innovation, improves teacher-student interactions, and increases learning flexibility across various educational settings (König et al., 2020; Tondeur et al., 2017). Nonetheless, this digital shift presents challenges such as increased digital workload, the need for technological skills, and the risk of technostress, all of which can affect teachers' mental health (Ram & Kannaujiya, 2025; Sokal et al., 2020; Syvänen et al., 2016). Consequently, teachers' digital readiness depends not only on technical competence but also heavily on organizational support and a supportive work environment, which help teachers adapt healthily and avoid excessive pressure from technology in teaching (Alves et al., 2020).

The study shows that technostress significantly impacts teacher well-being. The demands to use technology, device complexity, and the need for rapid responses to digital platforms diminish teachers' psychological health. This aligns with Tu et al., (2025), who found that technostress predicts burnout and directly lowers teachers' well-being. To mitigate these effects, systematic management through institutional support, coping strategies, and ongoing technology training is essential. In digital education, the challenges of technology use, technical issues, and device complexity are linked to increased emotional exhaustion, role conflict, and reduced job satisfaction, which negatively affect teacher well-being (Molino et al., 2020; Tarafdar et al., 2020). These findings further confirm that work-related stressors significantly influence psychological well-being (Yuniasanti et al., 2024).

In Islamic education, these challenges are more complex because teachers must balance technological skills with the preservation of spiritual and moral values in their teaching. Digital transformation can add psychological pressure if there are not enough resources (Izzah et al., 2025). Moreover, limited digital literacy, a lack of technological tools, and resistance to pedagogical changes in madrasahs make it harder for teachers to cope with growing digital demands (Thursina & Rusdi, 2024). This shows that digital job demands remain significant, even though teachers have some level of digital resilience.

The recent research findings indicate that teacher self-efficacy significantly influences teacher well-being. Teachers with high confidence in managing the learning process, fulfilling pedagogical tasks, and utilizing technology are generally better equipped to handle job demands and sustain their well-being at work. This aligns with existing literature that highlights how self-efficacy boosts motivation, emotional regulation, and job satisfaction while reducing stress and burnout risks (Zee & Koomen, 2016). In essence, teacher self-efficacy functions as a psychological safeguard that supports well-being and fosters technological adaptation. These results agree with Reppa et al. (2023), who identified self-efficacy as a key factor in enhancing teachers' well-being after transitioning to digital learning. Wang et al. (2024) also show that self-efficacy is a major predictor of well-being, through better emotional management and handling work demands. Additionally, Shao (2023) notes that teachers with high self-efficacy tend to have higher motivation and psychological health, while Li (2023) found that self-efficacy helps prevent burnout by increasing resilience and emotional regulation. Collectively, this international evidence supports the idea that self-efficacy is fundamental to fostering teachers' psychological well-being in the increasingly complex educational landscape.

This study's findings, which indicate that technostress does not significantly impact digital resilience, suggest that teachers' ability to adapt to digital challenges is not solely influenced by immediate technological pressures. Instead, various studies demonstrate that digital resilience is primarily shaped by internal factors and professional experiences that develop over time (Guillén et al., 2022; Shi et al., 2025). Theoretical perspectives also support this view. Gudmundsdottir & Hatlevik, (2018). highlight that teacher digital competence evolves through long-term training, experience, and reflective practice. Additionally, research by Tu et al. (2025) shows that the effect of technostress is often mitigated by protective factors such as organizational support and coping skills, meaning it does not always directly affect teachers' ability to adapt. Therefore, digital resilience in teachers is better understood as a skill that grows through experience, training, and personal resources, rather than a short-term response weakened by technological pressures.

Furthermore, teacher self-efficacy also has a significant effect on digital resilience. Teachers with high self-efficacy tend to be more confident in facing technological obstacles, able to solve problems related to the use of digital devices, and able to adapt flexibly to changes in technology-based learning systems. In line with this, research shows that self-efficacy is a strong predictor of digital adaptation and resilience to technological pressures because teachers with high self-confidence find it easier to develop coping strategies and maintain control in challenging digital situations (König et al., 2020; Tondeur et al., 2017). These findings confirm that increasing self-efficacy needs to be the focus of interventions in teacher professional development, as strong self-efficacy directly contributes to the formation of effective digital resilience amid the rapid digitization of education.

The study results reveal that digital resilience does not significantly impact teacher well-being. This is because digital resilience mainly serves as an adaptive skill to handle technological challenges rather than as a factor that directly enhances psychological health. Teachers with digital resilience can overcome technical hurdles and adapt to digital learning environments, but this does not necessarily boost job satisfaction or emotional well-being. This aligns with Burić & Kim (2020), who found that core psychological factors like self-efficacy and teaching quality have a more direct influence on teacher well-being than digital adaptation skills. Literature on digital competence highlights that managing technology relates more to digital literacy, experience, and technical ability (Guillén-Gámez et al., 2023; Yang et al., 2023), rather than emotional balance or professional satisfaction. Other educational research confirms that resilience mainly helps reduce work stress rather than directly improve well-being (Jara Cerdan et al., 2025). In Islamic schools, studies show that teachers' digital literacy is still developing, often limited to technical and administrative tasks, causing a gap between digital demands and their professional skills (Syaharuddin et al., 2025). Additionally, challenges related to digital competence influence teachers' experiences with technological pressures, indicating that digital resilience is more about technical adaptation than directly boosting well-being (Eraku et al., 2021; Mintasih et al., 2024).

Research suggests that digital resilience does not act as a mediator between teacher self-efficacy and technostress in influencing teacher well-being. Teachers with high self-efficacy can attain well-being directly through confidence in their pedagogical and professional abilities, without relying on digital resilience (Zee & Koomen, 2016). Conversely, technostress impacts well-being directly because it is driven by organizational factors such as workload, institutional support, technical regulations, and school culture, making digital adaptation skills ineffective as a buffer (Molino et al., 2020; Pagán-Garbín et al., 2024; Panisoara et al., 2020; Tarafdar et al., 2019). In Islamic schools, teacher well-being is more strongly linked to the meaning of work, dedication, and social bonds rooted in religious values than to technical skills (Na'imah et al., 2021). Thus, digital resilience should be viewed as the capacity to adapt to technological demands, although it is not yet sufficient to directly enhance teacher well-being.

This study significantly advances JD-R Theory and Resilience Theory within Indonesian education, especially Islamic schools. It identifies self-efficacy as the key personal resource that enhances well-being, while technostress functions as a job demand that diminishes teachers' well-being. Digital resilience serves as an adaptive capacity enabling teachers to cope in the digital age, though it does not directly boost well-being. These results highlight the need to bolster personal resources, regulate job demands, provide organizational support, develop coping strategies, and offer professional training-particularly in Islamic schools, which face unique administrative challenges and spiritual values. Past research also indicates that well-being in educational contexts results from interactions among personal, social, and organizational factors (Pamukti et al., 2025). Consequently, enhancing these areas is vital for supporting teacher well-being in the digital era.

4. Conclusion

This study shows that digital resilience does not significantly mediate the relationship between technostress, teacher self-efficacy, and teacher well-being. The results reveal that teacher self-efficacy directly impacts both teacher well-being and digital resilience, whereas technostress directly harms teacher well-being. Conversely, digital resilience has little effect on well-being and does not serve as a mediating factor, implying that it functions more as an adaptive ability than as a predictor of psychological health.

Within the JD-R Model, teacher self-efficacy is a key personal resource that boosts well-being, while technostress acts as a job demand that can diminish it. These results indicate that, in Indonesian Islamic secondary schools, teacher well-being is more significantly influenced by internal psychological factors, professional purpose, and managing work pressures than by digital adaptation skills alone.

In practical terms, these findings suggest that initiatives to enhance teacher well-being should focus on boosting self-efficacy and minimizing sources of technostress. This can be achieved through ongoing organizational support, appropriately managing workload, and providing continuous professional development. Although digital resilience is still significant, it should be viewed as a supplementary ability rather than the primary focus in supporting teacher well-being.

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Author Contributions

Devi Jati Septyningtyas contributed to conceptualization, data collection, data analysis, and manuscript drafting. Tri Nai'mah contributed to supervision and manuscript review. Mohd Nazri Abdul Rahman, Mahdi Anbari, and Endah Silawati contributed to reviewing the manuscript and providing academic feedback.

Conflict of interest

The authors declare no conflict of interest regarding the publication of this paper.

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