THE EFFECTS OF TECHNOSTRESS AND SELF-EFFICACY ON E-KINERJA ADOPTION: THE MEDIATING ROLE OF RESISTANCE TO INNOVATION AMONG EMPLOYEES OF RSUD PROVINSI NTB (PROVINCIAL GENERAL HOSPITAL OF WEST NUSA TENGGARA)

Rismaramdhani Zafarina[1]
Universitas Mataram, Mataram, Indonesia
farin.risma@gmail.com

Santi Nururly[2]
Universitas Mataram, Mataram, Indonesia
snururly@unram.ac.id

Dwi Putra Buana Sakti[3]
Universitas Mataram, Mataram, Indonesia
dwiputrabs@unram.ac.id

Abstract

This study aims to examine the effects of technostress and self-efficacy on the adoption of the E-Kinerja system, with resistance to innovation serving as a mediating variable among healthcare professionals at RSUD Provinsi NTB general hospital. The research employed a quantitative approach using an associative-causal research design. The sample consisted of 195 healthcare professionals who used the E-Kinerja system. The data collection was conducted through a questionnaire distribution and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) by utilizing the SmartPLS 4.0 software. The findings indicate that technostress has a positive and significant effect on E-Kinerja adoption. Similarly, self-efficacy has a positive and significant effect on E-Kinerja adoption. Furthermore, technostress has a positive and significant effect on resistance to innovation, whereas self-efficacy has a negative and significant effect on resistance to innovation. Meanwhile, resistance to innovation has a negative and significant effect on E-Kinerja adoption. The mediation test reveals that technostress has a negative indirect effect on E-Kinerja adoption through resistance to innovation, while self-efficacy has a positive indirect effect on E-Kinerja adoption through resistance to innovation. These findings suggest that the successful adoption of the E-Kinerja system is affected not only by technological aspects but also by users' psychological factors, particularly technostress, self-efficacy, and resistance to innovation.

Keywords: E-Kinerja Adoption, PLS-SEM, Resistance To Innovation, Self-Efficacy, Technostress

INTRODUCTION

Digital transformation has become a key catalyst for reforming public service governance, including the healthcare sector, as reflected in Indonesia's National Digital Transformation Strategy, which promotes efficiency, transparency, and accountability through electronic performance appraisal systems (e-kinerja) (Dermawan, 2025; Widodo & Wening, 2025). This agenda, however, unfolds against a backdrop of uneven digital readiness: only about 50% of Indonesia's 3,000 hospitals have implemented electronic medical records, and merely 16% operate them effectively (Ministry of Health, 2023), a gap that WHO (2026) attributes to the need for stronger digital governance across the region. RSUD Provinsi NTB illustrates this tension in practice. Although the hospital has adopted e-kinerja to support the NTB Regional Medium-Term Development Plan 2025–2029 (Bima City Government, 2025), a preliminary survey of 30 employees found every adoption indicator in the low category (below 50%), most notably in independent system use and initiative to explore new features suggesting that the availability of a system does not by itself guarantee its acceptance, which instead depends on users' intention and readiness (Venkatesh et al., 2012).

This shortfall in adoption points toward a deeper psychological source: technostress, the pressure that arises when technological demands outpace individual adaptive capacity (Tarafdar et al., 2015). Consistent with this, the same survey found techno-overload, techno-complexity, techno-uncertainty, and techno-insecurity all rated high (73–79%), echoing prior evidence that healthcare workers are particularly susceptible to such pressure amid rapid clinical and administrative digitalization (Keshavarz et al., 2025; Thunberg et al., 2023). Left unaddressed, this pressure tends to manifest as resistance to innovation the tendency to reject change perceived as threatening one's comfort and established routine (Ram & Sheth, 1989) which here appeared predominantly passive (74–81%) rather than active (60–61%), indicating that employees are less inclined to openly reject the system than to quietly disengage from it. Self-efficacy, or one's belief in their capability to use technology (Bandura, 1997), offers a plausible counterweight to this pattern, as employees with stronger self-efficacy are generally better positioned to overcome resistance and sustain adoption (Ahn & Chen, 2022; Dwivedi et al., 2023).

Despite this apparent interplay, the literature has yet to connect these constructs within a single explanatory model. Existing studies on technostress and innovation resistance concentrate mainly on private, educational, or banking settings and typically test direct effects without accounting for psychological mediating mechanisms (Zhang, 2023; Hew et al., 2024; Gabbiadini et al., 2023; Khlaif et al., 2023), while healthcare-focused research remains centered on clinical technologies rather than mandatory managerial systems such as e-kinerja (Fu et al., 2025). This leaves unexamined how resistance to innovation might mediate the influence of technostress and self-efficacy on e-kinerja adoption within a regional public healthcare organization. Addressing this gap, the present study draws on the Technostress Model (Tarafdar et al., 2015), Social Cognitive Theory (Bandura, 1997), and Innovation Resistance Theory (Ram & Sheth, 1989) to examine (1) the effects of technostress and self-efficacy on resistance to innovation, (2) their effects, together with resistance to innovation, on e-kinerja adoption, and (3) the mediating role resistance to innovation plays between them, among employees of RSUD Provinsi NTB with the aim of enriching the technology-adoption literature and informing strategies to strengthen digital readiness in the public healthcare sector.

REVIEW OF LITERATURE

e-Kinerja Adoption

E-Kinerja adoption refers to employees' intention to use the e-kinerja system continuously and meaningfully rather than merely to comply with mandatory requirements (Venkatesh et al., 2012), operationalised through intention to use, continuance, and quality of use (Ajzen, 1991; Davis, 1989). Grounded in TAM/UTAUT, adoption bridges cognitive evaluation and actual technology use (Dwivedi et al., 2023), and is theorised to be weakened by technostress and strengthened by self-efficacy, both directly and through resistance to innovation (Ahn & Chen, 2022; Zhang, 2023;Saputri & Nururly,2023)

Technostress

Technostress denotes the psychological strain arising from difficulty adapting to workplace technology (Brod, 1984; Ragu-Nathan et al., 2008), operationalised through techno-overload, techno-complexity, techno-uncertainty, and techno-insecurity (Tarafdar et al., 2015; Zafarina & Nururly, 2025). It emerges when digital demands exceed adaptive resources, depleting psychological energy (Califf et al., 2020). Among mandatory e-kinerja users with limited digital literacy, technostress heightens resistance to innovation (Zhang, 2023) and lowers adoption intention (Deng et al., 2023; Gabbiadini et al., 2023).

Self-Efficacy

Self-efficacy is the belief in one's capability to execute actions required to attain a given performance (Bandura, 1997), operationalised through confidence in using technology, problem-solving ability, and adaptability to new systems (Yan, 2022; Zaini et al., 2022). As a personal resource, it builds resilience and reduces perceived threat toward technological change. Higher self-efficacy diminishes resistance to innovation (Zhang, 2023; Kim & Lee, 2021) and promotes adoption (Hoonsopon et al., 2025; Liu et al., 2022).

Resistance to Innovation

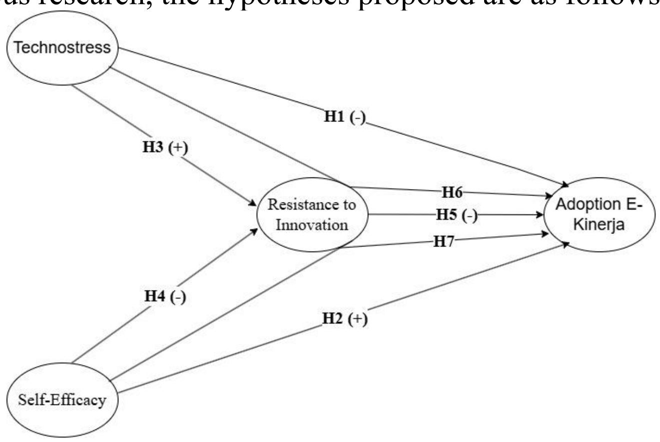
Resistance to innovation is the tendency to reject, postpone, or oppose an innovation perceived as disrupting established routines (Ram & Sheth, 1989), encompassing functional barriers, psychological barriers, and perceived threat to resources (Cieslak & Valor, 2025). It functions as the mechanism converting technostress into avoidance and weakening self-efficacy's positive effect on adoption (Deng et al., 2023; Zhang, 2023; Asmony, 2012), consistently lowering adoption intention (Villanueva Orbaiz & Arce-Urriza, 2024; Yoo et al., 2021).

RESEARCH METHOD

This study adopts a quantitative explanatory design to examine the causal relationships among technostress, self-efficacy, resistance to innovation, and e-kinerja adoption among permanent employees of RSUD Provinsi NTB. Data were collected through a cross-sectional survey using a structured five-point Likert questionnaire, distributed both online and offline to 195 respondents selected via proportionate stratified random sampling across medical and non-medical staff. Primary data consisted of respondents' scores on the four constructs, while secondary data on staff distribution supported sample stratification. All constructs were measured reflectively using established indicators adapted to the e-kinerja context. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4.0, covering outer model evaluation (reliability and validity), inner model assessment (R^2, Q^2, f^2, path coefficients), bootstrapping (5,000 resamples) for direct and indirect effects, and model fit testing using SRMR and NFI.

Research Hypothesis

This study aims to analyze the influence of technostress and self-efficacy on adoption of E-Kinerja, with resistance to innovation acting as a mediating variable among permanent employees (civil servants and PPPK) at RSUD Provinsi NTB. Based on the review of literature and previous research, the hypotheses proposed are as follows:



H1: Technostress negatively affects adoption of E-Kinerja at RSUD Provinsi NTB.
H2: Self-efficacy positively affects adoption of E-Kinerja at RSUD Provinsi NTB.
H3: Technostress positively affects employees' resistance to innovation at RSUD Provinsi NTB.
H4: Self-efficacy negatively affects employees' resistance to innovation at RSUD Provinsi NTB.
H5: Resistance to innovation negatively affects adoption of E-Kinerja at RSUD Provinsi NTB.
H6: Resistance to innovation mediates the indirect effect of technostress on adoption of E-Kinerja.
H7: Resistance to innovation mediates the indirect effect of self-efficacy on adoption of E-Kinerja.

The following presents the complete research findings obtained through Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0. The analysis encompasses descriptive statistics, measurement model evaluation, discriminant validity, hypothesis testing, model fit assessment, and mediation interpretation.

Descriptive Statistics

Respondent Characteristics

This study involved 195 respondents who are active users of the E-Kinerja system at RSUD Provinsi NTB. The characteristics of the respondents are presented in Table 1.

Table 1.
Respondent Characteristics

Characteristic	Category	n	%
Gender	Male	67	34.5
	Female	128	65.5
Age	25–34 years	40	20.7
	35–44 years	74	37.9
	45–54 years	69	35.5
	≥ 55 years	12	5.9
Education	Senior High School	4	2.0
	Diploma (D3/D4)	39	20.2
	Bachelor (S1)	112	57.1
	Health Profession	22	10.3
	Postgraduate (S2/S3/Specialist)	18	8.9
Length of Service	< 1 year	2	1.0
	1–5 years	46	23.6
	6–10 years	23	11.8
	> 10 years	124	63.5
Position	Clinical staff	126	66.0
	Medical support staff	20	10.3
	Public/preventive health staff	12	6.4
	Administration & policy	33	17.7
	Non-health/other	4	2.0
E-Kinerja usage frequency	Once a month	143	73.4
	2–3 times a week	14	7.4
	Daily	33	16.7
	Rarely	5	2.5

Source: Primary data processed (2026)

The respondents were predominantly female (65.5%), in the productive age range of 35–54 years (73.4%), holding a bachelor's degree (57.1%), with more than 10 years of service

(63.5%), and working primarily as clinical staff (66.0%). The majority (73.4%) used the E-Kinerja system only once a month, indicating that the system functions more as a periodic reporting instrument than as part of daily work routines. This composition is important for interpreting the results, as the dominance of experienced employees with established work patterns and relatively low-intensity system use provides important context for understanding technostress, self-efficacy, resistance to innovation, and adoption of E-Kinerja.

Variable Descriptive Statistics

Each research variable was assessed using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) and categorized based on the following interval criteria: 1.00–1.80 (Very Low), 1.81–2.60 (Low), 2.61–3.40 (Moderate), 3.41–4.20 (High), and 4.21–5.00 (Very High).

Table 2.
Descriptive Statistics of Research Variables

Variable	Dimension	Mean	Category
Technostress	Techno-Overload	3.11	Moderate
	Techno-Complexity	2.92	Moderate
	Techno-Insecurity	2.91	Moderate
	Techno-Uncertainty	3.12	Moderate
	Overall	**3.01**	**Moderate**
Self-Efficacy	Confidence in Using Technology	3.55	High
	Problem-Solving Ability	3.38	Moderate
	Adaptability to New Systems	3.62	High
	Overall	**3.52**	**High**
Resistance to Innovation	Functional Barriers	2.98	Moderate
	Psychological Barriers	2.78	Moderate
	Perceived Threat to Resources	2.82	Moderate
	Overall	**2.86**	**Moderate**
Adoption E-Kinerja	Continuance of Use	3.47	High
	Attitude toward Use	3.61	High
	Behavioral Engagement	3.61	High

Overall	**3.56**	**High**

Source: Primary data processed (2026)

Based on table 2, *Technostress* was perceived at a moderate level (mean = 3.01), with the highest pressure related to the need to continuously improve digital competence (item TIS.3, mean = 3.88) rather than a total inability to follow system development (item TC.4, mean = 2.66). *Self-efficacy* was perceived at a high level (mean = 3.52), driven by employees' efforts to learn new systems (item ANS.3) and confidence in using E-Kinerja (item CUT.1), although problem-solving ability remained at a moderate level (mean = 3.38). *Resistance to innovation* was at a moderate level (mean = 2.86), with the most prominent resistive tendency being a preference for manual systems over digital ones (item FB.2), while most respondents did not perceive E-Kinerja as offering no real benefit (item FB.1). *Adoption* of E-Kinerja was at a high level (mean = 3.56), led by employees' willingness to encourage colleagues to adapt to digital systems (item BE.3), while continued use without supervisor encouragement (item CE.3) remained the lowest indicator, suggesting that part of the usage is still driven by organizational obligation rather than fully voluntary acceptance.

Measurement Model Evaluation (Outer Model)

The measurement model was evaluated to ensure that each latent construct is validly and reliably measured by its indicators. Convergent validity was assessed using the criteria of outer loadings >= 0.70 and Average Variance Extracted (AVE) >= 0.50, while internal consistency reliability was examined through Cronbach's alpha and Composite Reliability (CR) > 0.70 (Hair et al., 2020).

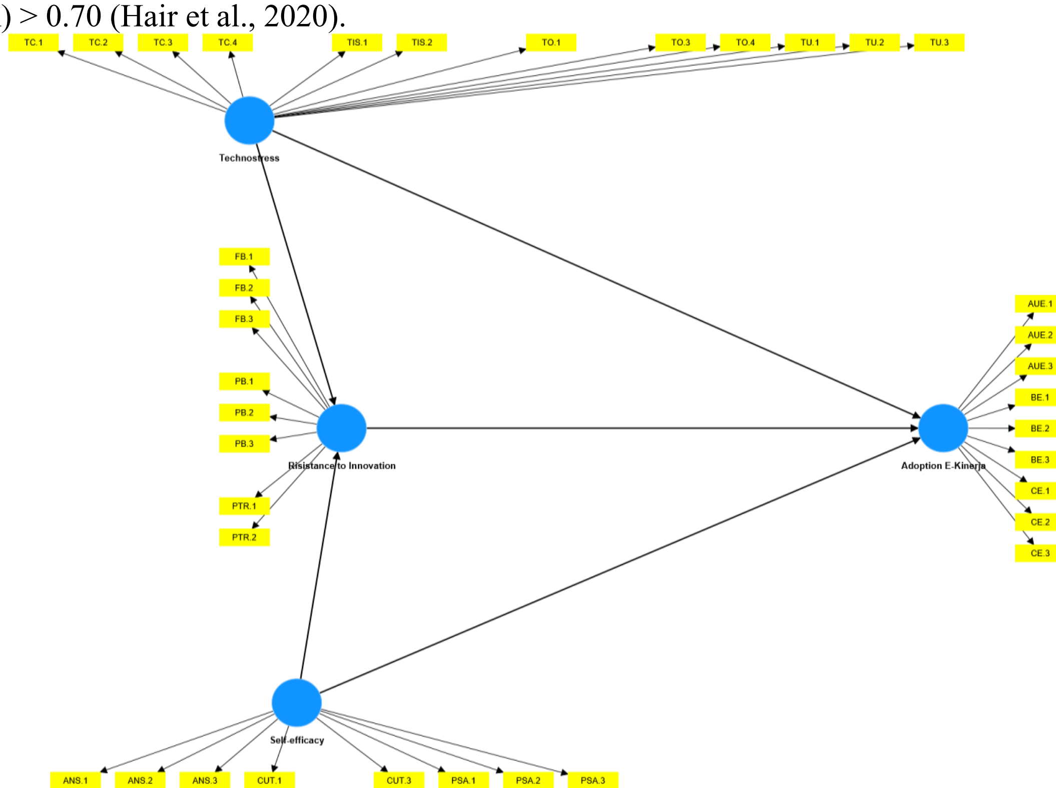


Figure 1.
Measurement Model Evaluation
Source: SmartPLS 4 (2026)

Convergent Validity and Reliability

Table 2 presents a summary of convergent validity and internal consistency reliability results for the four research constructs. Before conducting the structural model analysis, it was first ensured that each indicator is valid in measuring its respective construct. The criteria used refer to Hair et al. (2020), namely outer loading >= 0.70, AVE >= 0.50, and Cronbach's alpha and Composite Reliability > 0.70.

Table 3.
Convergent Validity and Reliability

Variable	Cronbach's Alpha	Composite Reliability (ρa)	Composite Reliability (ρc)	AVE
Technostress	0.961	0.962	0.965	0.700
Self-Efficacy	0.941	0.942	0.951	0.708
Resistance to Innovation	0.946	0.949	0.955	0.726
Adoption E-Kinerja	0.935	0.936	0.946	0.660

Source: Output SmartPLS 4.0, data processed 2026.

All constructs exhibited Cronbach's alpha and composite reliability above 0.70 and AVE above 0.50 (ranging from 0.660 to 0.726), confirming adequate construct reliability and convergent validity (Hair et al., 2022). Discriminant validity was confirmed through both the Fornell-Larcker criterion, where the square root of AVE for each construct (Adoption E-Kinerja = 0.813; Resistance to Innovation = 0.852; Self-Efficacy = 0.842; Technostress = 0.837) exceeded its correlations with other constructs, and the HTMT ratio, where all values remained below the 0.90 threshold, with the highest value (0.852) occurring between Technostress and Resistance to Innovation and the lowest (0.387) between Technostress and Adoption E-Kinerja.

Discriminant Validity

Discriminant validity was first evaluated using the Heterotrait-Monotrait (HTMT) ratio. According to Hair et al. (2022), all HTMT values should remain below the 0.90 threshold to confirm that constructs are conceptually distinct. The HTMT matrix is presented in Table 4.

Table 4.
Heterotrait-Monotrait (HTMT) Ratio

Variable	Adoption E-Kinerja	Resistance to Innovation	Self-Efficacy	Technostress
Adoption E-Kinerja	–			
Resistance to Innovation	0.581	–		
Self-Efficacy	0.772	0.721	–	
Technostress	0.387	0.852	0.638	–

Source: Output SmartPLS 4.0, data processed 2026.

As shown in Table 4, all HTMT values are below the 0.90 critical threshold, confirming discriminant validity for all construct pairs. The highest HTMT value (0.852) was recorded between Technostress and Resistance to Innovation, reflecting the conceptually close relationship between these constructs, yet remaining below the threshold. The lowest value (0.387) was observed between Technostress and Adoption E-Kinerja, indicating their relative independence. These results confirm that all constructs are empirically distinguishable..

Structural Model Evaluation (Inner Model)

After the measurement model was established as valid and reliable, the structural model evaluation was conducted to examine predictive power and effect sizes among variables. Three main indicators were evaluated: the coefficient of determination (R-squared) and effect size (f-squared).

R-Square

The coefficient of determination (R^2) indicates the proportion of variance in each endogenous variable explained by its predictors. Following Hair et al. (2022), $R^2 \geq 0.75$ is classified as substantial, $R^2 \geq 0.50$ as moderate, and $R^2 \geq 0.25$ as weak. The R^2 and adjusted R^2 values for both endogenous variables are presented in Table 5.

Table 5.
Coefficient of Determination (R^2)

Endogenous Variable	R^2	R^2 Adjusted	Category
Adoption E-Kinerja	0.568	0.561	Moderate
Resistance to Innovation	0.719	0.716	Substantial

Source: Output SmartPLS 4.0, data processed 2026.

Based on Table 5, the Adoption E-Kinerja variable achieved $R^2 = 0.568$, classified as Moderate, indicating that Technostress, Self-Efficacy, and Resistance to Innovation together explain 56.8% of the variance in E-Kinerja adoption, with the remaining 43.2% attributable to factors outside the model. The Resistance to Innovation variable achieved $R^2 = 0.719$, classified as Substantial, indicating that Technostress and Self-Efficacy jointly explain 71.9% of the variance in resistance. The adjusted R^2 values closely approximate the R^2 values for both endogenous variables, confirming that the model is not overfitted

Effect Size (f-squared)

The effect size (f-squared) measures the relative contribution of each exogenous variable to the endogenous variable. Cohen's (1988) criteria classify f-squared >= 0.35 as large, 0.15-0.34 as medium, 0.02-0.14 as small, and < 0.02 as very small

Table 6.
Effect Size (f-squared)

Path Relationship	f^2	Category
Technostress → Resistance to Innovation	0.893	Large
Self-Efficacy → Resistance to Innovation	0.199	Medium
Self-Efficacy → Adoption E-Kinerja	0.574	Large
Resistance to Innovation → Adoption E-Kinerja	0.081	Small

Technostress → Adoption E-Kinerja	0.088	Small

Source: Output SmartPLS 4.0, data processed 2026.

The results in Table 6 show that Technostress has a large effect on Resistance to Innovation (f-squared = 0.893), making it the dominant predictor in the model. Self-Efficacy also demonstrates a large effect on Adoption E-Kinerja (f-squared = 0.574) and a medium effect on Resistance to Innovation (f-squared = 0.199). Conversely, the direct effects of Resistance to Innovation and Technostress on Adoption E-Kinerja are relatively small (f-squared = 0.081 and 0.088, respectively). This pattern confirms that Resistance to Innovation serves as the primary psychological mechanism through which Technostress and Self-Efficacy exert their influence on E-Kinerja adoption.

Hypothesis Testing and Model Fit

Hypothesis testing was performed through the bootstrapping procedure in SmartPLS 4.0 with 5,000 resamples, generating path coefficients, t-statistics, and p-values. A hypothesis is accepted when the t-statistic > 1.96 and the p-value < 0.050 for a two-tailed test (Hair et al., 2020). Results are presented in Table 7.

Table 7.
Hypothesis Testing Results (Bootstrapping)

Hyp.	Relationship	Hypothesized Direction	β	T-Statistic	P-Value	Result
			Direct Effects			
H1	Technostress → Adoption E-Kinerja	Negative (−)	0.338	3.138	0.002	Rejected*
H3	Technostress → Resistance to Innovation	Positive (+)	0.632	9.217	0.000	Accepted
H2	Self-Efficacy → Adoption E-Kinerja	Positive (+)	0.689	9.000	0.000	Accepted
H4	Self-Efficacy → Resistance to Innovation	Negative (−)	−0.298	4.167	0.000	Accepted
H5	Resistance to Innovation → Adoption E-Kinerja	Negative (−)	−0.354	2.942	0.003	Accepted
			Indirect (Mediation) Effects			
H6	Technostress → RTI → Adoption E-Kinerja	−0.224	2.864	0.004	Accepted	Competitive (inconsistent) mediation

H7	Self-Efficacy → RTI → Adoption E-Kinerja	0.106	2.182	0.029	Accepted	Complementary partial mediation

Source: Output SmartPLS 4.0, data processed 2026.

Six of the seven hypotheses were accepted at the 5% significance level. Technostress positively and significantly affects Resistance to Innovation (H3), while its direct effect on Adoption E-Kinerja was found to be significantly positive rather than negative as hypothesized (H1 rejected), suggesting that mandatory system use drives compliance-based adoption rather than voluntary acceptance. Self-Efficacy is the strongest direct predictor of Adoption E-Kinerja (H2) and significantly reduces Resistance to Innovation (H4). Resistance to Innovation negatively and significantly affects Adoption E-Kinerja (H5). Regarding mediation, Resistance to Innovation mediates the Technostress–Adoption relationship through competitive (inconsistent) mediation (H6), where the indirect effect is negative ($\beta = -0.224$) while the direct effect is positive ($\beta = 0.338$), indicating that Technostress simultaneously drives formal compliance yet erodes genuine adoption quality. Resistance to Innovation also partially mediates the Self-Efficacy–Adoption relationship through complementary mediation (H7), where both the direct ($\beta = 0.689$) and indirect ($\beta = 0.106$) effects are positive and mutually reinforcing. These findings confirm that Self-Efficacy is the primary lever for promoting adoption, while Technostress is the principal driver of resistance formation.

Predictive Relevance – CVPAT

Predictive relevance was evaluated using the Cross-Validated Predictive Ability Test (CVPAT), as recommended by Shmueli et al. (2019) and Hair et al. (2022). CVPAT compares the PLS model's prediction loss against two benchmarks: the Indicator Average (IA), which predicts using item means, and a Linear Model (LM) using multiple linear regression. A PLS loss lower than both benchmarks with a significant difference ($p < 0.05$) confirms superior predictive power. The CVPAT results are presented in Table 16.

Table 8.
Cross-Validated Predictive Ability Test (CVPAT)

Variable	Q^2predict	PLS Loss	IA Loss	LM Loss	Δ vs IA	Δ vs LM	Predictive Relevance
Adoption E-Kinerja	0.521	0.539	0.815	0.587	−0.276	−0.048	High
Resistance to Innovation	0.704	0.684	1.405	0.744	−0.721	−0.060	High

Source: Output of SmartPLS 4.0, processed (2025)

Based on Table 8, the Q^2predict values were 0.521 for Adoption E-Kinerja and 0.704 for Resistance to Innovation, both positive and substantial, indicating good predictive relevance for both endogenous constructs. The PLS loss values were lower than both IA loss and LM loss for each variable. The mean differences in loss between PLS and IA were −0.276 for Adoption E-Kinerja and −0.721 for Resistance to Innovation (both $p < 0.001$), and differences versus LM were also significant. These results confirm that the PLS-SEM model possesses high predictive relevance, outperforming both the simple average baseline and multiple linear regression benchmarks, as stipulated by Hair et al. (2022) and Shmueli et al. (2019).

The Effect of Technostress on E-Kinerja Adoption

Contrary to expectations, technostress exerted a positive and significant direct effect on E-Kinerja adoption (β = 0.338, t = 3.138, p = 0.002), leading H1 to be rejected, though the effect size remained small (f^2 = 0.088). This counter-intuitive result is best explained by the mandatory nature of E-Kinerja: employees continue engaging with the system despite psychological strain because non-compliance carries direct consequences for their performance appraisal (Brown et al., 2002), consistent with UTAUT's proposition that organizational mandate can sustain usage even when perceived ease of use is compromised (Venkatesh et al., 2003). This is corroborated descriptively most respondents use E-Kinerja only once a month (73.4%) and have over ten years of service (63.5%), indicating a workforce using the system chiefly to satisfy periodic reporting obligations. The finding diverges from Deng et al. (2023), who reported a negative effect among medical practitioners using discretionary clinical technologies; the contrast suggests that the sign of the technostress–adoption relationship is contingent on system mandatoriness, and that positive usage under compulsion should not be mistaken for genuine acceptance. Reducing technostress through technical support and interface simplification therefore remains essential to convert compliance into committed use.

The Effect of Technostress on Resistance to Innovation

Technostress had a positive and significant effect on resistance to innovation (β = 0.632, t = 9.217, p = 0.000), supporting H3, with a very large effect size (f^2 = 0.893) that establishes it as the model's dominant predictor. This aligns with the Technostress Model (Ragu-Nathan et al., 2008; Tarafdar et al., 2015): techno-overload, techno-complexity, techno-uncertainty, and techno-insecurity generate cumulative pressure that manifests as avoidant behavior. Through Innovation Resistance Theory (Ram & Sheth, 1989), technostress intensifies both functional barriers (perceived complexity) and psychological barriers (discomfort with change), while Conservation of Resources Theory (Hobfoll, 1989) explains resistance as a self-protective response to threatened personal resources. Descriptive results—moderate functional (mean = 2.98) and psychological barriers (mean = 2.78), amplified by a long-tenured workforce support this reading, consistent with Hew et al. (2024) and Deng et al. (2023). Practically, lowering resistance requires addressing technostress at its source: simplified interfaces, phased training, and responsive technical support.

The Effect of Self-Efficacy on E-Kinerja Adoption

Self-efficacy emerged as the strongest direct predictor of adoption (β = 0.689, t = 9.000, p = 0.000), supporting H2, with a large effect size (f^2 = 0.574), affirming Social Cognitive Theory (Bandura, 1997): confident employees persist through difficulties and sustain independent use. Self-efficacy was rated high overall (mean = 3.52), driven by willingness to learn new features (ANS.3, mean = 3.81), though problem-solving ability remained moderate (mean = 3.38). This parallels Zhang (2023), Fu et al. (2025), and Kim & Park (2023), positioning self-efficacy as the most actionable psychological lever available to RSUD Provinsi NTB, since, unlike structural constraints, it is directly trainable through hands-on practice and peer mentoring.

The Effect of Self-Efficacy on Resistance to Innovation

Self-efficacy also significantly reduced resistance to innovation (β = −0.298, t = 4.167, p = 0.000), supporting H4, with a medium effect size (f^2 = 0.199), consistent with Social Cognitive Theory's premise that confident individuals interpret demands as manageable rather than threatening. High adaptability (mean = 3.62) alongside moderate problem-solving ability (mean = 3.38) suggests willingness to engage still outpaces independent technical mastery, echoing Zhang (2023) and Yan (2022). Read with H3, this confirms that technostress and self-efficacy act as opposing forces on the same resistance mechanism, implying that one-sided interventions are unlikely to durably reduce resistance.

The Effect of Resistance to Innovation on E-Kinerja Adoption

Resistance to innovation significantly reduced adoption (β = −0.354, t = 2.942, p = 0.003), supporting H5, with a small effect size (f^2 = 0.081) relative to self-efficacy's contribution. This is consistent with Innovation Resistance Theory: perceived burden or threat to routine drives postponement or minimal use, reflected in the moderate barriers observed and the preference for manual over digital procedures (FB.2, mean = 2.73), aligning with Villanueva Orbaiz and Arce-Urriza (2024) and Yoo et al. (2021). Improving adoption thus requires actively managing resistance not merely mandating use through usability improvements and employee involvement in system evaluation.

The Mediating Role of Resistance to Innovation in the Technostress–Adoption Relationship

The mediation analysis for H6 reveals one of this study's most theoretically consequential findings: resistance to innovation mediates the technostress–adoption relationship through competitive, or inconsistent, mediation (β = −0.224, t = 2.864, p = 0.004). Following Zhao et al. (2010), this classification arises because the direct effect of technostress on adoption is positive (β = 0.338) while its indirect effect through resistance is negative (β = −0.224) two paths pointing in opposite directions within a single model. This is not a statistical curiosity but a substantive psychological phenomenon: on the direct path, the mandatory character of E-Kinerja compels continued use because administrative consequences of non-compliance outweigh the discomfort of use (Brown et al., 2002; Venkatesh et al., 2003); on the indirect path, that same technostress accumulates into resistance manifested as preference for manual routines and reluctance to explore new features which then quietly degrades the depth and sustainability of adoption.

This extends Deng et al. (2023), who found resistance mediating the technostress adoption link among medical practitioners with both paths moving consistently in the same direction, typical of complementary mediation in voluntary or semi-voluntary settings (Hew et al., 2024; Gabbiadini et al., 2023). The competitive mediation observed here suggests the psychological architecture of adoption differs fundamentally under mandatory use: resistance does not merely weaken an already-positive relationship but actively counteracts a compliance-driven surface effect. This cautions against interpreting H1's positive direct effect as evidence that pressure "works" the suppressed indirect path shows the same technostress is concurrently corroding the outcome it appears to promote, a dynamic a direct-effects-only design would miss entirely. Practically, RSUD Provinsi NTB should treat continued use under high technostress as a warning sign rather than a success indicator, prioritizing measures that target the technostress–resistance channel directly—simplified interfaces, phased updates with adequate training, and accessible technical support—so that compliance-driven usage can be converted into adoption that is sustained and psychologically genuine.

The Mediating Role of Resistance to Innovation in the Self-Efficacy–Adoption Relationship

In marked contrast, H7 shows that resistance to innovation partially mediates the self-efficacy–adoption relationship through complementary mediation (β = 0.106, t = 2.182, p = 0.029), where both the direct effect (β = 0.689) and the indirect effect are positive and mutually reinforcing (Zhao et al., 2010). Unlike the tension observed in the technostress pathway, self-efficacy operates coherently through two aligned channels: it directly strengthens employees' willingness to engage with E-Kinerja, and indirectly does so by lowering the functional and psychological barriers constituting resistance. Employees confident in mastering system features and resolving problems independently are less likely to perceive E-Kinerja as an imposition precisely the mechanism anticipated by Social Cognitive Theory (Bandura, 1997) and reflected in respondents' moderate-to-high self-efficacy profile (mean = 3.52). This corroborates and extends Zhang (2023), who showed self-efficacy buffering technostress's effect on resistance in an educational setting, and Fu et al. (2025), who found self-efficacy fostering innovative behavior among healthcare workers through a similarly convergent mechanism.

The present finding transposes this dynamic into mandatory managerial systems within regional public hospitals, showing that self-efficacy's dual-channel influence holds even where usage is not discretionary. This is a meaningful theoretical contribution: it demonstrates that resistance to innovation is not a fixed, uniformly negative construct but one whose mediating role is contingent on the valence of its antecedent suppressing adoption when driven by technostress (H6), yet reinforcing it when driven by self-efficacy (H7) a refinement of Innovation Resistance Theory (Ram & Sheth, 1989) that prior single-antecedent studies were not structured to reveal. Read together, H6 and H7 indicate that strengthening self-efficacy offers a comparatively reliable, self-sustaining route to improving adoption, while addressing technostress functions as necessary damage control together forming the dual strategy RSUD Provinsi NTB should pursue: structured hands-on training and peer mentoring to build self-efficacy, alongside interface simplification and technical support to contain technostress.

CONCLUSION

This study finds that E-Kinerja adoption at RSUD Provinsi NTB is shaped by a psychological interplay between technostress, self-efficacy, and resistance to innovation rather than technology alone. Technostress unexpectedly increased direct adoption through compliance-driven use, yet simultaneously heightened resistance, which suppressed adoption quality through competitive mediation; self-efficacy, in contrast, strengthened adoption both directly and indirectly via reduced resistance, forming a complementary mediation pathway. Theoretically, the study extends Innovation Resistance Theory by showing that resistance functions as a conditional mediator whose direction depends on its antecedent's valence. Practically, hospitals should prioritize strengthening self-efficacy through training and mentoring while treating technostress reduction as a corrective measure, since sustained mandatory use may mask eroding psychological commitment. Given its cross-sectional, single-hospital design, future research should employ longitudinal, multi-organizational approaches to strengthen causal inference and generalizability.

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