

The Influence of Digital Competence on Innovative Work Behavior through Self-Efficacy and Perceived Organizational Support

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ABSTRACT: Digital transformation within primary healthcare services compels community health centers not merely to adopt technological infrastructure, but to cultivate employees' innovative work behavior. At UPTD Puskesmas Klungkung I, digital technologies remain predominantly confined to administrative functions, thereby failing to optimally catalyze service innovation—a condition presumed to stem from variation in employees' digital competence, self-efficacy, and perceived organizational support. This study investigates the direct and indirect effects of digital competence on innovative work behavior, mediated by self-efficacy and perceived organizational support. An explanatory quantitative approach with a cross-sectional design was employed. Data were collected via questionnaires administered to 84 employees of UPTD Puskesmas Klungkung I, selected through a saturated sampling technique, and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1. The findings reveal that digital competence exerts a positive and significant effect on innovative work behavior, self-efficacy, and perceived organizational support. Self-efficacy and perceived organizational support likewise positively influence innovative work behavior and partially mediate the relationship between digital competence and innovative work behavior. These findings substantiate *Social Cognitive Theory* and *Organizational Support Theory*, demonstrating that technical proficiency alone is insufficient to engender innovation absent reinforced self-belief and organizational support. Community health centers are therefore encouraged to sustain continuous digital training, strengthen employees' self-confidence through incremental mastery experiences, and furnish infrastructural support alongside a work culture conducive to innovative initiative.

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INTRODUCTION

Digital transformation within the global health sector has fundamentally reconfigured the paradigm of healthcare delivery, compelling health institutions not only to adopt technology but also to cultivate a sustainable ecosystem of innovation (World Health Organization, 2023; Wu et al., 2022). Puskesmas, as the principal pillar of Indonesia's primary healthcare system, confront a dual challenge: implementing digital technology within service operations while simultaneously developing the innovative capacity of health personnel to respond to increasingly complex community needs (Kementerian Kesehatan RI, 2024). This condition raises a fundamental question regarding the mechanism linking digital competence to innovative work behavior, as well as the psychological and organizational factors that mediate this relationship.

Recent empirical evidence indicates that the direct effect of digital competence on innovative work behavior is relatively modest in the absence of psychological and organizational mediating mechanisms (Chen & Shen, 2025). This finding aligns with *Social Cognitive Theory*, which posits that human behavior is shaped through reciprocal interaction among personal, behavioral, and

environmental factors (Bandura, 1986), as well as *Organizational Support Theory*, which explains that perceived organizational support engenders a reciprocal obligation among employees to contribute more substantially to the organization (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). Digital competence alone is therefore presumed insufficient to foster innovative work behavior unless accompanied by adequate self-efficacy and perceived organizational support.

This phenomenon is clearly manifest at UPTD Puskesmas Klungkung I, a primary health facility in Klungkung Regency, Bali, which serves ten villages/sub-districts with a population of 36,945 inhabitants. Although various digital systems—including the Puskesmas Management Information System (SIMPUS), SATUSEHAT, P-Care BPJS, and electronic medical records—have been implemented, the 2024 Puskesmas profile data reveal several performance gaps, including active family-planning acceptor coverage of merely 60 percent against a 90 percent target, a mosquito larvae-free index of 84.97 percent that remains below the 95 percent target, and 265 recorded cases of Dengue Hemorrhagic Fever throughout 2024. National data further indicate that although 78 percent of Puskesmas have implemented SIMPUS, only 42 percent utilize it to develop service innovations, signaling a substantial *innovation gap* between digital infrastructure investment and organizational innovation capacity (Cetindamar Kozaoglu & Abedin, 2021).

Disparities in digital competence among employees constitute another salient phenomenon, wherein younger employees exhibit relatively greater adaptability to digital technology, whereas senior employees tend to display lower self-confidence and greater dependence on specific colleagues when operating digital applications. This condition is consistent with findings that digital competence alone does not automatically enhance innovative behavior, but rather requires psychological mechanisms and organizational support as mediators (Chen & Shen, 2025; Hassan et al., 2024). Prior studies have confirmed the role of digital competence in shaping innovative behavior across various organizational contexts (Jarva et al., 2024; Mainz et al., 2024; Huu, 2023); however, research simultaneously examining the dual mediating roles of self-efficacy and perceived organizational support within the primary healthcare context in Indonesia remains relatively scarce.

In light of these theoretical and empirical gaps, this study is designed to examine the effect of digital competence on innovative work behavior, self-efficacy, and perceived organizational support; the effect of self-efficacy and perceived organizational support on innovative work behavior; as well as the mediating roles of self-efficacy and perceived organizational support in the relationship between digital competence and innovative work behavior among employees of UPTD Puskesmas Klungkung I. This study is expected to contribute theoretically by integrating individual-psychological and contextual-organizational perspectives within a single dual-mediation model, while offering practical implications for Puskesmas management in designing evidence-based human resource development strategies.

The subsequent section presents the literature review, including the development of the research hypotheses. The third section elaborates the research methodology and presents the results together with the discussion. The final section offers conclusions and recommendations for future research.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Social Cognitive Theory

Social Cognitive Theory, advanced by Bandura (1986), posits that human behavior emerges from the reciprocal interaction among personal, behavioral, and environmental factors, a process known as *triadic reciprocal determinism* (Schunk & DiBenedetto, 2020). Personal factors encompass an individual's cognition, skills, and self-efficacy; behavioral factors represent actual actions that generate feedback affecting the other two factors; while environmental factors encompass organizational culture, structure, and support (Bandura, 1997). In this study, digital competence and self-efficacy represent personal factors, innovative work behavior represents the behavioral factor, while perceived organizational support represents the environmental factor. This framework underscores that digital competence does not automatically foster innovative behavior unless accompanied by adequate self-efficacy, as health personnel possessing high digital competence but low self-efficacy tend to utilize technology merely to fulfill administrative tasks (Chen & Shen, 2025).

Organizational Support Theory

Organizational Support Theory, formulated by Eisenberger et al. (1986), explains the social exchange relationship between employees and organizations, wherein employees form a general belief regarding the extent to which the organization values their contributions and cares about their well-being, termed *perceived organizational support* (POS). This belief is shaped through the principle of anthropomorphism, whereby the actions of organizational agents are perceived as representative of the organization itself, as well as through the consistency of experiences over time (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). POS fosters positive employee behavior through three mechanisms: the fulfillment of socioemotional needs that enhances organizational commitment, the emergence of *felt obligation* to reciprocate contributions, and the reduction of perceived risk in undertaking innovation, as employees believe their efforts will be valued regardless of outcome (Nargotra & Sarangal, 2023; Kurtessis et al., 2017).

Digital Competence

Digital competence is defined as an individual's capacity to employ information and communication technology effectively, safely, and critically across various dimensions of personal, professional, and social life (Van Laar et al., 2020), encompassing not merely operational technical skills but also cognitive, social, and ethical capacities for navigating complex digital environments (Carretero et al., 2017). Mazurchenko et al. (2020) extend this concept as a set of knowledge, skills, attitudes, and awareness required to solve problems, communicate, collaborate, and create content efficiently, critically, and ethically. The DigComp framework (Vuorikari et al., 2022) operationalizes digital competence into five dimensions: information and data literacy, communication and collaboration, digital content creation, digital safety, and problem-solving. Mainz et al. (2024) further add technical, methodological, social, and personal competence dimensions specific to health professionals. Within the primary healthcare context, digital competence represents health personnel's capacity to utilize technology effectively and responsibly to support service delivery, administration, and data-driven decision-making, thereby constituting a strategic capability underpinning work efficiency, clinical decision quality, and organizational readiness for digital transformation.

Self-Efficacy

Self-efficacy, a core construct of *Social Cognitive Theory* (Bandura, 1997), is defined as an individual's belief in their capacity to organize and execute the actions required to achieve a given outcome, functioning as a motivational mechanism linking competence to actual performance. Bandura (1997) identifies four sources of self-efficacy—*mastery experience*, *vicarious experience*, *social persuasion*, and *physiological and emotional states*—that shape individual beliefs through cognitive, motivational, affective, and behavioral selection processes. In the context of digital technology use, self-efficacy is reflected in confidence regarding digital technical capability, the capacity to leverage technology for enhanced performance, adaptability to technological change, capacity for innovation, and the ability to overcome challenges and setbacks (Jarva et al., 2024; Hassan et al., 2024; Jiang et al., 2025). Bandura (2006) emphasizes that self-efficacy measurement is domain-specific; accordingly, within the context of health personnel in the digital era, self-efficacy functions as psychological capital that determines the extent to which employees' competencies are translated into readiness for change, perseverance in the face of obstacles, and the courage to implement novel ideas.

Perceived Organizational Support

Perceived Organizational Support constitutes employees' overarching belief regarding the extent to which the organization values their contributions, cares about their well-being, and fulfills their socioemotional needs (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002), grounded in social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). Building on this framework, perceived organizational support within the context of digital transformation encompasses six dimensions: instrumental support for digital technology, support for digital competence development, technical and operational support, support for innovation and experimentation, recognition and reward, and managerial and leadership support (Al-Taie & Khattak, 2024; Laakkonen et al., 2024; Nargotra & Sarangal, 2023; Mohammed & Al-Abrrow, 2024). Perceived organizational support has been shown to yield extensive consequences, ranging from enhanced affective commitment, job satisfaction, and organizational citizenship behavior, to reduced resistance to change and strengthened employee readiness to adopt technological innovation (Eisenberger et al., 2020; Kurtessis et al., 2017), thereby constituting a critical contextual mechanism that encourages employees to optimally leverage their digital competence to generate innovative work behavior.

Innovative Work Behavior

Innovative Work Behavior was first systematically introduced by Scott and Bruce (1994) as a set of individual actions directed toward the generation, introduction, and application of novel ideas, processes, products, or procedures beneficial to the work unit or organization. Janssen (2000) deepens this concept by emphasizing its intentional nature, novelty component, and orientation toward performance improvement, while De Jong and Den Hartog (2010) underscore the importance of the implementation stage through a three-phase model—*idea generation*, *idea promotion*, and *idea realization* (Messmann & Mulder, 2023). Various studies have identified antecedents of innovative work behavior at the individual level (personality, motivation, competence, self-efficacy), team level (innovation climate, diversity, transformational leadership), and organizational level (culture, perceived organizational support, resource availability, job characteristics). Within the context of digitally based primary healthcare services, innovative work behavior is manifested through employees' capacity to explore opportunities, generate and promote ideas, implement innovations, and creatively leverage technology to enhance the quality, efficiency, and accessibility of health services (Wu et al., 2022; Hassan et al., 2024; Cai et al., 2024).

Hypothesis Development

Effect of Digital Competence on Innovative Work Behavior

Digital competence constitutes a strategic capability enabling employees to access, process, and generate information in support of work effectiveness and innovation (Van Laar et al., 2020). *Social Cognitive Theory* (Bandura, 1986) explains that competence, as a personal factor, fosters the emergence of adaptive behavior through interaction with the work environment, including innovative behavior within digital contexts. Numerous empirical studies corroborate this relationship. Jarva et al. (2024) found that health personnel with high digital competence are more adaptive and actively engaged in developing service innovations; this finding is

reinforced by Mainz et al. (2024), who reported that digital competence enhances collaborative capacity, decision-making, and innovation. Huu (2023) demonstrated a significant effect of digital competence on innovative work behavior through enhanced confidence to explore new working methods, consistent with Hassan et al. (2024), who showed that health personnel with high digital competence are better able to develop technology-based service innovations than those who merely use technology administratively. Cetindamar Kozanoglu and Abedin (2021), Van Laar et al. (2020), and Wu et al. (2022) affirm digital competence as a prerequisite for an organizational culture of innovation, while Chen and Shen (2025) found this positive effect to be further strengthened when supported by psychological and organizational factors. Based on this theoretical and empirical synthesis, the higher an employee's digital competence, the greater their capacity to generate, develop, and implement innovation in their work, leading to the following hypothesis.

H1: Digital competence exerts a positive and significant effect on innovative work behavior.

Effect of Digital Competence on Self-Efficacy

Social Cognitive Theory explains that self-efficacy is formed through *mastery experience* in accomplishing tasks (Bandura, 1986, 1997). Digital competence constitutes a primary source of such experience, as it enables employees to effectively complete technology-based tasks. Chen and Shen (2025) demonstrated that digital competence exerts a positive and significant effect on self-efficacy, as technological mastery provides successful experiences that enhance self-belief. Hassan et al. (2024) corroborated this finding among health personnel, showing that digital competence enhances digital self-efficacy, thereby preparing employees to adopt innovation more readily. Jiang et al. (2025) similarly demonstrated that individuals with high digital competence possess stronger self-efficacy in technology-based tasks, consistent with Van Laar et al. (2020), who emphasized the reinforcement of self-confidence within digital work environments. Tramontano et al. (2021) and Labanauskaitė et al. (2021) respectively showed that digital technology mastery shapes confidence in confronting career challenges and constitutes an important predictor of enhanced self-efficacy in modern work environments. Based on the foregoing, the following hypothesis is proposed.

H2: Digital competence exerts a positive and significant effect on self-efficacy.

Effect of Digital Competence on Perceived Organizational Support

Organizational Support Theory explains that perceived organizational support is formed when employees believe their contributions are valued and their work-related needs are facilitated (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002). Facilities for digital competence development, such as training, infrastructure, and technical mentoring, represent tangible manifestations of such support. Chen and Shen (2025) demonstrated that digital competence positively affects perceived organizational support, as employees perceive tangible benefits from the organization's digital facilities. Al-Taie and Khattak (2024) found that organizational investment in digital competence enhances employees' perception of organizational concern for their well-being and career development, while Nargotra and Sarangal (2023) showed that support for digital competence development strengthens the social exchange relationship between employees and the organization. Wu et al. (2022), Kruse et al. (2018), and Meng et al. (2022) concur that the provision of digital infrastructure, continuous training, and managerial support enhances perceived organizational support throughout digital transformation.

H3: Digital competence exerts a positive and significant effect on perceived organizational support.

Effect of Self-Efficacy on Innovative Work Behavior

Self-efficacy denotes an individual's belief in their capacity to organize and execute actions to achieve a given outcome (Bandura, 1997). *Social Cognitive Theory* explains that individuals with high self-efficacy tend to set challenging goals, take risks with confidence, and proactively seek solutions—characteristics that underlie the emergence of innovative behavior. Hassan et al. (2024) showed that health personnel with high self-efficacy are more inclined to adopt new technologies and develop service innovations. Chen and Shen (2025) demonstrated a positive and significant effect of self-efficacy on innovative work behavior through enhanced courage to explore new working methods, consistent with Jiang et al. (2025), who found that self-efficacy fosters creativity in leveraging digital technology. This finding is consistent with research by Xerri and Brunetto (2013), Kmieciak (2021), and Cai et al. (2024), which demonstrated that employees with high self-efficacy are more inclined to propose new ideas, experiment, and persist in innovating despite the risk of failure. Based on the foregoing, the following hypothesis is proposed.

H4: Self-efficacy exerts a positive and significant effect on innovative work behavior.

Effect of Perceived Organizational Support on Innovative Work Behavior

Organizational Support Theory (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002) and *Social Exchange Theory* explain that employees who feel valued by their organization are motivated to reciprocate through positive contributions, including innovative work behavior. Al-Taie and Khattak (2024) demonstrated that perceived organizational support positively affects innovative work behavior, as employees perceive adequate resources to develop ideas. Nargotra and Sarangal (2023) reinforced this finding, showing that organizational support enhances commitment, engagement, and the courage to innovate, while Chen and Shen (2025) found that employees with high perceived support exhibit superior innovative work behavior. Xerri et al. (2018), Cai et al. (2024), and Messmann and Mulder (2023) similarly affirm that a supportive organizational climate is a key factor in facilitating the generation, promotion, and implementation of new ideas. Based on the foregoing, the following hypothesis is proposed.

H5: Perceived organizational support exerts a positive and significant effect on innovative work behavior.

Mediating Role of Self-Efficacy

Social Cognitive Theory explains that individual capability does not automatically generate a given behavior, but is instead mediated by belief in one's own competence (Bandura, 1986). Digital competence furnishes technical skill, yet is realized as innovation only when accompanied by robust self-efficacy. Chen and Shen (2025) demonstrated that self-efficacy significantly mediates the relationship between digital competence and innovative work behavior. Hassan et al. (2024) reinforced this finding, showing that digital self-efficacy constitutes the mechanism explaining how technological competence is translated into health service innovation, consistent with Jiang et al. (2025), who found that high digital competence more strongly fosters innovation when accompanied by high self-efficacy. Tramontano et al. (2021), Van Laar et al. (2020), and Wu et al. (2022) further note that enhanced digital competence unaccompanied by self-belief often results merely in administrative technology use, failing to drive sustained innovation. Based on the foregoing, the following hypothesis is proposed.

H6: Self-efficacy mediates the effect of digital competence on innovative work behavior.

Mediating Role of Perceived Organizational Support

Organizational Support Theory and *Social Exchange Theory* explain that employees reciprocate organizational attention and support through behavior beneficial to the organization. Digital competence does not invariably generate innovation unless the organization provides an environment conducive to its utilization. Chen and Shen (2025) showed that perceived organizational support significantly mediates the relationship between digital competence and innovative work behavior, as digital competence more effectively generates innovation when accompanied by strong organizational support. Al-Taie and Khattak (2024) reinforced this finding by showing that organizational support strengthens the success of digital transformation through enhanced employee innovation, consistent with Nargotra and Sarangal (2023), who explained that perceived support creates a reciprocal relationship that fosters more optimal utilization of digital competence. Wu et al. (2022), Meng et al. (2022), Kruse et al. (2018), and Cai et al. (2024) affirm that the success of digital technology implementation is strongly influenced by an organizational climate that supports learning, collaboration, and experimentation.

H7: Perceived organizational support mediates the effect of digital competence on innovative work behavior.

RESEARCH METHODS

Design and Location

This study employs a quantitative approach with an *explanatory research* design to examine causal relationships among variables through hypothesis testing (Creswell & Creswell, 2018). A *cross-sectional* time perspective was adopted, whereby data were collected at a single point in time without manipulation of the variables under study. The study was conducted at UPTD Puskesmas Klungkung I, Klungkung Regency, Bali Province, from October 2025 to March 2026. This location was selected because it has implemented various digital health information systems, including e-Puskesmas, SATUSEHAT, P-Care BPJS, and Electronic Medical Records, thereby providing a relevant context for examining the role of digital competence in fostering innovative work behavior among health personnel.

Population and Sample

The study population comprised all 86 employees of UPTD Puskesmas Klungkung I, encompassing various professional groups such as physicians, midwives, nurses, pharmacists, community health workers, and administrative staff. This study employed a saturated sampling technique (also termed *census sampling*), whereby all population members meeting the inclusion criteria were engaged as respondents (Sugiyono, 2019). Following data cleaning, 84 respondents met the criteria and were retained as the final research sample. Data collection was conducted through the direct distribution of questionnaires to respondents, accompanied by researcher guidance to ensure comprehension and completeness of instrument responses.

Table 1.1 Research Population

No.	Department	Male	Female	Total
1	General Practitioner	1	4	5
2	Dentist	0	3	3
3	Health Administration	2	2	4
4	Laboratory Analyst	1	1	2
5	Pharmacist & Pharmacy Assistant	1	3	4
6	Midwife	—	27	27
7	Nutrition	—	2	2
8	Nurse	5	15	20

9	Dental Nurse	–	2	2
10	Health Promotion	1	2	3
11	Sanitation/Environmental Health	1	2	3
12	Head of General Affairs Subdivision	–	1	1
13	General Administration	4	4	8
	Total	17	68	84

Research Variables and Measurement

This study involves four variables: digital competence as the exogenous variable; self-efficacy and perceived organizational support as mediating variables; and innovative work behavior as the endogenous variable. Each variable was measured using indicators adapted from previously validated research instruments, adjusted to the primary healthcare context, employing a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Data Analysis Technique

Data were analyzed using *Structural Equation Modeling* with a *Partial Least Squares* approach (SEM-PLS) via SmartPLS version 4.1. The selection of SEM-PLS was based on the predictive orientation of the research objectives, the complexity of the model involving dual mediation mechanisms, and the relatively limited sample size, which does not require strict normal-distribution assumptions (Hair et al., 2021). The analysis was conducted in two stages: evaluation of the measurement model (*outer model*), comprising tests of convergent validity (*outer loading* and *Average Variance Extracted*), discriminant validity (*Fornell–Larcker* criterion, *cross-loading*, and *Heterotrait–Monotrait* ratio), and reliability (*Cronbach's Alpha* and *Composite Reliability*); and evaluation of the structural model (*inner model*), comprising tests of multicollinearity (*Variance Inflation Factor*), the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and goodness of fit. Hypothesis testing was conducted through a *bootstrapping* procedure with a significance criterion of T-statistics above 1.96 or P-values below 0.05, while the mediating role was evaluated using the *Variance Accounted For* (VAF) method to determine the category of full or partial mediation (Hair et al., 2017).

RESULTS

Descriptive Analysis

The descriptive analysis in this study aims to characterize respondents' perceptions of the indicators within each research variable based on questionnaire responses. This description is presented in terms of frequency, percentage, and mean values to provide a general overview of the conditions of the variables under investigation. The mean values across all variables indicate relatively high scores, as presented in the following analysis:

Table 2. Results of Descriptive Statistical Analysis

Indicator	Mean	Median	Observed Min	Observed Max	SD	Excess Kurtosis	Skewness	N	CvM Statistic	CvM p
DC1	3.765	3.750	2.000	5.000	0.634	-0.108	-0.148	84	0.123	0.054
DC2	3.765	3.750	2.000	5.000	0.631	0.144	-0.449	84	0.135	0.037
DC3	3.762	3.670	2.000	5.000	0.646	-0.291	-0.033	84	0.213	0.004
DC4	3.746	3.670	2.000	5.000	0.672	-0.235	0.040	84	0.193	0.006
DC5	3.810	3.835	2.000	5.000	0.651	-0.211	-0.281	84	0.193	0.006
IWB1	3.940	4.000	3.000	5.000	0.418	2.719	-0.390	84	3.968	0.000
IWB2	3.595	4.000	2.000	5.000	0.537	-0.708	-0.391	84	2.295	0.000
IWB3	4.286	4.000	3.000	5.000	0.502	-0.595	0.376	84	2.733	0.000
IWB4	3.464	3.000	2.000	5.000	0.566	-0.548	0.344	84	2.031	0.000
IWB5	3.798	4.000	2.000	5.000	0.507	1.515	-0.859	84	3.175	0.000
IWB6	3.690	4.000	2.000	5.000	0.534	0.071	-0.579	84	2.566	0.000

IWB7	4.167	4.000	3.000	5.000	0.484	0.611	0.404	84	3.124	0.000
POS1	3.873	4.000	2.000	5.000	0.619	0.131	-0.174	84	0.813	0.000
POS2	3.845	3.500	2.000	5.000	0.540	0.192	-0.044	84	1.227	0.000
POS3	4.113	4.000	2.000	5.000	0.619	0.679	-0.328	84	1.389	0.000
POS4	3.583	3.750	2.000	5.000	0.597	-0.490	0.184	84	1.214	0.000
POS5	3.655	3.500	2.000	5.000	0.551	0.149	0.225	84	0.677	0.000
SE1	3.940	4.000	2.500	5.000	0.483	0.526	-0.302	84	0.529	0.000
SE2	3.509	3.750	2.000	4.750	0.525	-0.841	-0.111	84	1.106	0.000
SE3	3.887	4.000	2.250	5.000	0.512	0.448	-0.408	84	0.848	0.000
SE4	4.077	4.000	2.750	5.000	0.497	0.722	-0.032	84	1.568	0.000
SE5	3.405	3.165	2.000	4.330	0.520	-0.920	-0.080	84	1.164	0.000

Outer Model Measurement

The results of the measurement model evaluation indicate that all indicators across the four constructs under investigation—Digital Competence, Self-Efficacy, Perceived Organizational Support, and Innovative Work Behavior—exhibit *outer loading* values above 0.7, ranging from 0.735 to 0.970, thereby satisfying the criterion for convergent validity. The *Average Variance Extracted* (AVE) values for all constructs likewise exceed 0.5, ranging from 0.666 for Innovative Work Behavior to 0.876 for Perceived Organizational Support. The discriminant validity test based on the *Fornell–Larcker* criterion indicates that the square root of AVE ($\sqrt{\text{AVE}}$) for each construct exceeds its correlation with other constructs, confirming that the four variables are empirically distinct. Meanwhile, the *Cronbach's Alpha* and *Composite Reliability* values for all constructs exceed 0.90, well above the 0.70 threshold, indicating that the research instrument is highly valid and reliable. The results of the outer model measurement analysis are presented in the following table:

Table 3. Construct Validity and Reliability

Variable	Indicator	Outer Loading	Cronbach's Alpha	rho_c	AVE
Digital Competence (DC)	DC1	0.931	0.960	0.969	0.863
	DC2	0.934			
	DC3	0.914			
	DC4	0.940			
	DC5	0.924			
Self-Efficacy (SE)	SE1	0.962	0.961	0.970	0.866
	SE2	0.914			
	SE3	0.943			
	SE4	0.914			
	SE5	0.917			
Perceived Organizational Support (POS)	POS1	0.940	0.964	0.972	0.876
	POS2	0.942			
	POS3	0.926			
	POS4	0.900			
	POS5	0.970			

Innovative Work Behavior (IWB)	IWB1	0.735	0.916	0.933	0.666
	IWB2	0.880			
	IWB3	0.814			
	IWB4	0.850			
	IWB5	0.807			
	IWB6	0.838			
	IWB7	0.781			

Inner Model Measurement

The structural model evaluation indicates that the *Variance Inflation Factor* values across all paths fall below the multicollinearity threshold ($VIF < 5$). The R^2 values indicate that the model explains 77.1% of the variance in Innovative Work Behavior, 58.0% of the variance in Self-Efficacy, and 46.9% of the variance in Perceived Organizational Support, which, according to the criteria of Hair et al. (2021), is classified as strong for the primary endogenous construct and moderate for both mediating constructs. The predictive relevance (Q^2) value of 0.949 confirms that the research model possesses excellent predictive capability. Hypothesis testing was conducted through a *bootstrapping* procedure to assess the significance of both direct and indirect (mediating) effects. A summary of the test results is presented in Tables 1 and 2 below.

Table 1. Results of Direct Effect Testing

Hypothesis	Path	Path Coefficient	T-Statistics	P-Values	Result
H1	Digital Competence → Innovative Work Behavior	0.355	4.410	0.000	Supported
H2	Digital Competence → Self-Efficacy	0.761	17.648	0.000	Supported
H3	Digital Competence → Perceived Organizational Support	0.685	11.102	0.000	Supported
H4	Self-Efficacy → Innovative Work Behavior	0.277	2.882	0.004	Supported
H5	Perceived Organizational Support → Innovative Work Behavior	0.332	3.996	0.000	Supported

Source: SmartPLS 4.1 data processing results (2026)

Table 2. Results of Indirect Effect Testing (Mediation)

Hypothesis	Indirect Path	Coefficient	T-Statistics	P-Values	VAF	Result
H6	Digital Competence → Self-Efficacy → Innovative Work Behavior	0.211	2.781	0.005	0.373	Partial Mediation
H7	Digital Competence → Perceived Organizational Support → Innovative Work Behavior	0.227	3.732	0.000	0.390	Partial Mediation

Source: SmartPLS 4.1 data processing results (2026)

All seven hypotheses proposed in this study are supported by empirical evidence (Tables 1 and 2). Digital competence exerts a positive and significant effect on innovative work behavior (path coefficient 0.355; T-statistics 4.410; p 0.000), on self-efficacy (path coefficient 0.761; T-statistics 17.648; p 0.000), and on perceived organizational support (path coefficient 0.685; T-statistics

11.102; p 0.000). Self-efficacy (path coefficient 0.277; T-statistics 2.882; p 0.004) and perceived organizational support (path coefficient 0.332; T-statistics 3.996; p 0.000) are likewise shown to positively and significantly affect innovative work behavior. The mediation test further reveals that self-efficacy partially mediates the relationship between digital competence and innovative work behavior (VAF 0.373), as does perceived organizational support (VAF 0.390), indicating that both mediators absorb a substantial, though not complete, proportion of the effect of digital competence on work innovation.

DISCUSSION

The finding that digital competence exerts a positive and significant effect on innovative work behavior (H1) reinforces the view that digital technology mastery functions as a catalyst for work innovation, rather than merely an administrative tool (Chen & Shen, 2025; Laakkonen et al., 2024). Robust digital competence equips employees with the capacity to explore ideas, benchmark working practices, and integrate technology into service processes more creatively. Field conditions at UPTD Puskesmas Klungkung I affirm this pattern: the implementation of digital systems such as e-Puskesmas, SATUSEHAT, P-Care BPJS, and electronic medical records remains suboptimal, with some employees continuing to experience delays in patient data entry and errors in digital reporting. Employees possessing strong digital competence, however, tend to complete tasks more rapidly, propose workflow improvements, and leverage underutilized system features—such as automated recapitulation functions to expedite monthly reporting. Conversely, employees with limited digital competence tend to work manually and merely follow procedures without initiative, such that disparities in digital competence among employees markedly distinguish their respective levels of innovative work behavior.

The positive effect of digital competence on self-efficacy (H2) aligns with the principle of *mastery experience* within *Social Cognitive Theory*, whereby repeated success in employing a technical skill reinforces individuals' belief in their own capability while simultaneously reducing *technology anxiety* (Bandura, 1997; Chen & Shen, 2025; Jiang et al., 2025). In the field, employees accustomed to operating computers and health applications appear more confident in independently completing digital tasks, and even assist colleagues encountering difficulties. Conversely, employees who remain hesitant and fearful of committing errors tend to avoid using digital systems without assistance, particularly during system updates or procedural changes. This pattern indicates that direct experience and continuous training are pivotal in cultivating employees' self-efficacy within an increasingly digitalized work environment.

Similarly, digital competence is shown to positively affect perceived organizational support (H3), consistent with the social exchange principle within *Organizational Support Theory* that employees capable of accessing and utilizing organizational resources are more likely to perceive organizational concern for their welfare (Eisenberger et al., 1986; Al-Taie & Khattak, 2024). UPTD Puskesmas Klungkung I has provided various forms of support, including health information systems, internet connectivity, and application training; however, perceptions of such support are not uniform. Employees with high digital competence tend to regard available facilities as adequate and readily perceive their benefits, whereas employees less proficient in technology feel burdened by digitalization demands and consider organizational support insufficient. This finding indicates that perceived organizational support is not merely a reflection of organizational policy, but is also shaped by individuals' capacity to utilize available resources.

With respect to the pathways influencing innovative work behavior, both self-efficacy (H4) and perceived organizational support (H5) are shown to exert positive and significant effects, confirming that internal psychological factors and external contextual factors operate in tandem to foster employee initiative. Employees with high self-efficacy at UPTD Puskesmas Klungkung I appear more proactive in proposing service improvements, more willing to modify patient service workflows for greater efficiency, and better prepared to confront changes in working systems, consistent with Bandura's (1997) view that self-efficacy influences individuals' willingness to take risks and set challenging goals (Newman et al., 2018; Hassan et al., 2024). Conversely, employees with low self-efficacy tend to remain passive and retain conventional working methods despite their reduced effectiveness. At the same time, employees who perceive organizational support—through, for instance, ease of system access, technical assistance, and supervisory appreciation—appear more enthusiastic about developing new working methods, consistent with the principle of reciprocity within *Organizational Support Theory*, whereby perceived support fosters extra-role contributions in the form of innovative initiative (Nargotra & Sarangal, 2023; Al Turki & Elkhailifa, 2023; Hassan et al., 2024).

The partial mediating roles of self-efficacy (H6) and perceived organizational support (H7) indicate that digital competence is not automatically translated into innovative behavior; rather, a portion of its effect is channeled through the reinforcement of self-belief and perceived organizational support. Field conditions reveal that not all employees with high digital competence automatically exhibit innovative behavior; competent yet less confident employees tend to utilize technology merely for basic needs, whereas employees whose digital competence is accompanied by high self-efficacy more actively explore system features and develop more efficient reporting methods. A similar pattern holds for the perceived organizational support pathway: digitally competent employees more readily perceive the benefits of facilities and training provided by the organization, and this sense of support subsequently motivates them to innovate, whereas employees less capable of utilizing technology do not optimally perceive such support and are consequently less motivated to innovate. This finding reinforces the argument of Chen and Shen (2025) that the direct effect size of digital competence on work innovation is relatively modest absent psychological and organizational mediating mechanisms. Given

the partial nature of this mediation, digital competence continues to exert a meaningful direct contribution to work innovation, such that strategies for enhancing innovative work behavior must simultaneously target all three pathways of influence: the enhancement of technical competence, the reinforcement of self-efficacy, and the strengthening of organizational support.

The novelty of this study lies in the simultaneous integration of psychological (self-efficacy) and contextual (perceived organizational support) mechanisms within a single dual-mediation model, situated in the context of primary healthcare organizations in Indonesia—a setting that remains scarcely examined in prior literature, which has generally focused on a single mediating variable or on non-healthcare organizational contexts (Bindel Sibassaha et al., 2025; Cai et al., 2024). Theoretically, this finding reinforces *Social Cognitive Theory* and *Organizational Support Theory* by demonstrating that work innovation results from the interaction between individual and organizational factors, rather than being merely a function of technological mastery. Practically, this finding indicates that Puskesmas management should design human resource development programs that focus not only on technical training, but also on strengthening employee self-confidence through incremental mastery experiences and the cultivation of a work environment supportive of innovative initiative.

RESEARCH LIMITATIONS

This study is subject to several limitations that warrant consideration in interpreting the results. First, the cross-sectional design employed depicts conditions at a single point in time and is therefore unable to capture the longitudinal dynamics of change in innovative work behavior. Second, this study is confined to a single location, namely UPTD Puskesmas Klungkung I, such that generalization of the findings to other healthcare organizations with differing characteristics should be approached with caution. Future research is encouraged to adopt longitudinal or mixed-methods approaches, extend the scope of the study to multiple healthcare institutions, and consider other relevant variables such as transformational leadership or organizational culture to further enrich understanding of the antecedents of innovative work behavior within the context of healthcare service digitalization.

CONCLUSION

This study concludes that digital competence exerts a positive and significant effect on innovative work behavior, both directly and indirectly through the partial mediation of self-efficacy and perceived organizational support, among employees of UPTD Puskesmas Klungkung I. Digital competence is likewise shown to enhance employees' self-efficacy and perceived organizational support, while self-efficacy and perceived organizational support each foster enhanced innovative work behavior. These findings affirm that enhancing digital competence alone is insufficient to foster innovative work behavior among health personnel; simultaneous reinforcement of employees' self-belief and the cultivation of a supportive organizational environment are required for digital competence to be optimally translated into innovative work behavior.

Theoretically, this study extends the literature on *Social Cognitive Theory* and *Organizational Support Theory* by demonstrating that the relationship between digital competence and innovative work behavior is explained through a dual mediation mechanism. Practically, the findings recommend that Puskesmas management conduct continuous, practice-based digital training, strengthen employees' self-efficacy through incremental mentoring and constructive feedback, and expand the provision of digital competence development training as a form of organizational support directly perceived by employees. For future research, it is recommended that the model be extended by incorporating other relevant variables, adopting longitudinal or mixed-methods approaches, and broadening the scope of study to encompass various healthcare service sectors in order to yield more comprehensive findings with greater generalizability.

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