

Empowering Leadership and Digital Innovative Work Behavior in Micro and Small Enterprises: The Roles of Psychological Well-Being, Self-Efficacy, Work Engagement, and Government Support

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ABSTRACT: Digital transformation requires Micro and Small Enterprises (MSEs) to strengthen their innovation capability in order to remain competitive in an increasingly dynamic business environment. This study aims to examine the effects of empowering leadership on psychological well-being, self-efficacy, and work engagement, and the influence of work engagement and government support on digital innovative work behavior (DIWB). In addition, the study investigates the moderating role of government support in the relationship between work engagement and digital innovative work behavior. A quantitative explanatory research design was employed using data collected from 230 MSE owners in Surabaya, Malang, and Blitar, East Java, selected through purposive sampling. Data were collected using a five-point Likert scale questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that empowering leadership has a positive and significant effect on psychological well-being and self-efficacy, but does not directly influence work engagement. Furthermore, psychological well-being and self-efficacy significantly enhance work engagement, while work engagement and government support positively influence digital innovative work behavior. However, the moderating effect of government support on the relationship between work engagement and digital innovative work behavior was not supported. These findings highlight the importance of empowering leadership, employees' psychological resources, and government support in promoting digital innovation among Micro and Small Enterprises.

KEYWORDS: Empowering Leadership, Digital Innovative Work Behavior, Psychological Well-Being, Self-Efficacy, Work Engagement, Government Support, MSEs.

I. INTRODUCTION

Micro and Small Enterprises (MSEs) play a significant role in Indonesia's economy by generating employment, distributing income, and driving economic growth. However, the rapid advancement of digital technologies has compelled MSEs to adapt their business processes to remain competitive in an increasingly dynamic business environment. The adoption of digital technologies enables enterprises to improve operational efficiency, expand market access, and enhance innovation capability. Nevertheless, many MSEs continue to face challenges related to limited digital competencies, inadequate human resources, and low innovation capacity, which hinder successful digital transformation (Kumar et al., 2022; Mutonyi & SI, 2020; Stoffers et al., 2019).

Digital Innovative Work Behavior (DIWB) has emerged as a strategic capability that enables organizations to maintain competitiveness and sustainability during digital transformation (Ye et al., 2022). DIWB refers to employees' ability to generate, promote, and implement innovative ideas through the utilization of digital technologies to improve organizational performance and work effectiveness (Jönsson et al., 2021; Joo et al., 2022). Previous studies suggest that organizations that fail to foster digital innovative behavior are more likely to experience lower innovation performance and reduced organizational competitiveness (Na-Nan & Arunyaphum, 2021). For MSEs, where organizational resources are generally limited, employees' digital innovative behavior becomes an essential source of competitive advantage (Knezović & Drkić, 2020).

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One of the most influential organizational factors that promotes innovative behavior is Empowering Leadership, a leadership style characterized by delegating authority, encouraging participation in decision-making, enhancing employees' autonomy, and developing their competencies. Empowering leaders create supportive work environments that encourage creativity, learning, and experimentation with new technologies, thereby facilitating digital innovation (Hassi et al., 2021; Singh & Rangnekar, 2020). Empirical studies have consistently demonstrated that empowering leadership positively influences innovative work behavior, employee creativity, and organizational performance (Joo et al., 2022; Kim & Beehr, 2019; J. G. Park et al., 2017). However, most existing studies have focused on large organizations, while empirical evidence from Micro and Small Enterprises remains relatively limited (Hoang et al., 2019).

According to the Job Demands–Resources (JD-R) Theory, organizational resources such as empowering leadership contribute to the development of employees' personal resources, which subsequently enhance work engagement and desirable work outcomes (Bakker & Demerouti, 2017; Schaufeli et al., 2006). Two important personal resources are Psychological Well-Being and Self-Efficacy. Psychological well-being reflects individuals' positive psychological functioning, including positive emotions, personal growth, and the ability to cope effectively with workplace challenges (Suleman et al., 2021). Individuals with higher psychological well-being tend to be more cognitively flexible and emotionally resilient, enabling them to adopt and implement digital innovations more effectively (Koroglu & Ozmen, 2021). Meanwhile, self-efficacy refers to individuals' confidence in their capability to successfully accomplish tasks and overcome challenges (Bandura, 1999). Higher self-efficacy encourages employees to adopt new technologies, persist when facing technological uncertainty, and actively engage in innovation processes (Luthans et al., 2007).

These personal resources subsequently foster Work Engagement, which is characterized by vigor, dedication, and absorption in work activities (Schaufeli et al., 2006). Highly engaged employees are more proactive, enthusiastic, and committed to achieving organizational goals, making them more likely to generate and implement innovative ideas through digital technologies (Bakker & Demerouti, 2017; Hameli et al., 2023). Consequently, work engagement serves as an important motivational mechanism linking psychological resources to Digital Innovative Work Behavior.

Besides internal organizational resources, external institutional support also contributes to successful digital transformation. Government Support, including digital skills training, financial assistance, mentoring programs, digital infrastructure, and supportive public policies, provides an enabling environment that facilitates innovation among MSEs (Mahesh et al., 2023; Priharsari et al., 2023; Zhang & Xu, 2022). Such support may directly encourage innovative digital behavior while also strengthening the organization's capability to implement digital transformation initiatives.

Although previous studies have extensively examined the relationships among empowering leadership, work engagement, and innovative work behavior, empirical evidence integrating Psychological Well-Being, Self-Efficacy, Work Engagement, and Government Support within a single research framework remains limited, particularly in the context of Indonesian Micro and Small Enterprises. Furthermore, limited studies have investigated the direct contribution of government support to Digital Innovative Work Behavior as well as its moderating role in the relationship between work engagement and innovation during digital transformation.

Therefore, this study aims to examine the effects of Empowering Leadership on Psychological Well-Being, Self-Efficacy, and Work Engagement, as well as the effects of Work Engagement and Government Support on Digital Innovative Work Behavior among Micro and Small Enterprises in East Java, Indonesia. Furthermore, this study investigates whether Government Support moderates the relationship between Work Engagement and Digital Innovative Work Behavior. The findings are expected to extend the Job Demands–Resources Theory by integrating organizational resources, personal resources, and institutional support into a comprehensive model explaining digital innovative behavior among MSEs. Practically, the study provides implications for business leaders and policymakers in designing leadership development programs and public policies to accelerate sustainable digital transformation and innovation within Indonesia's MSE sector.

II. LITERATURE REVIEW

Digital transformation has compelled Micro and Small Enterprises (MSEs) to continuously improve their innovation capabilities in order to maintain competitiveness in an increasingly dynamic business environment. Digital Innovative Work Behavior (DIWB) has emerged as a strategic capability that enables employees to generate, promote, and implement innovative ideas through the effective use of digital technologies, thereby enhancing organizational performance and long-term competitiveness (Joo et al., 2022; Scott et al., 1994; Yuan & Woodman, 2010). According to the Job Demands–Resources (JD-R) Theory, organizational resources (job resources), such as empowering leadership, stimulate employees' personal resources, resulting in higher work engagement and improved work outcomes (Bakker & Demerouti, 2017). Furthermore, Social Cognitive Theory argues that

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individuals' beliefs regarding their own capabilities determine their motivation, persistence, and behavioral performance when facing challenging work situations (Bandura, 1999).

Empowering Leadership refers to leadership behaviors that promote employee autonomy, participation in decision-making, delegation of authority, accountability, and competence development (Bakker & Demerouti, 2007). This leadership style creates a supportive work environment that encourages employees to experiment, learn, and adopt new technologies, making it particularly relevant in the context of digital transformation (J. G. Park et al., 2017; Singh & Rangnekar, 2020). Previous empirical studies consistently demonstrate that empowering leadership positively influences employees' creativity, innovative work behavior, psychological well-being, and self-efficacy (Cui et al., 2020; Joo et al., 2022; Kim & Beehr, 2019).

Psychological Well-Being reflects individuals' positive psychological functioning, including self-acceptance, autonomy, environmental mastery, purpose in life, positive relationships, and personal growth. Employees with higher levels of psychological well-being tend to possess greater emotional stability, cognitive flexibility, and resilience, enabling them to adapt more effectively to technological changes and organizational challenges (Koroglu & Ozmen, 2021; Suleman et al., 2021). Meanwhile, Self-Efficacy represents an individual's confidence in successfully performing work-related tasks and overcoming obstacles (Bandura, 1999). Employees with high self-efficacy are more willing to experiment with new technologies, persist in solving complex problems, and actively engage in innovative activities (Newman et al., 2018; Omar & Mahmud, 2014).

Within the JD-R framework, both Psychological Well-Being and Self-Efficacy function as personal resources that strengthen Work Engagement, which is characterized by vigor, dedication, and absorption in work (Schaufeli et al., 2006). Highly engaged employees are more motivated to invest additional effort, demonstrate proactive behavior, and generate innovative solutions using digital technologies (Hameli et al., 2023; Xanthopoulou et al., 2007). Consequently, Work Engagement serves as an important psychological mechanism linking organizational resources with innovative work outcomes.

In the context of digital transformation, employee innovation extends beyond conventional innovative behavior to Digital Innovative Work Behavior (DIWB), which refers to employees' capability to create, promote, and implement innovative ideas by leveraging digital technologies to improve organizational effectiveness and business performance (Joo et al., 2022; Yuan & Woodman, 2010). DIWB has become increasingly important for Micro and Small Enterprises because digital innovation enables firms to improve operational efficiency, respond rapidly to market changes, and maintain sustainable competitive advantages despite limited organizational resources (Knezović & Drkić, 2020; Kumar et al., 2022)

Besides internal organizational resources, external institutional support also contributes significantly to digital transformation. Government Support includes digital training, financial assistance, technology infrastructure, mentoring programs, and supportive public policies that facilitate digital adoption among MSEs (Maulana & Iskandar, 2023). Such institutional support reduces barriers to innovation and creates a favorable ecosystem for digital entrepreneurship (Priharsari et al., 2023; Zhang & Xu, 2022). Therefore, Government Support is expected not only to directly enhance Digital Innovative Work Behavior but also to strengthen the positive influence of Work Engagement on employees' digital innovative behavior.

Based on the Job Demands–Resources Theory and Social Cognitive Theory, this study proposes that Empowering Leadership enhances employees' Psychological Well-Being and Self-Efficacy, which, in turn, increase Work Engagement and ultimately promote Digital Innovative Work Behavior. Furthermore, Government Support is expected to directly facilitate Digital Innovative Work Behavior while moderating the relationship between Work Engagement and Digital Innovative Work Behavior by creating a supportive external environment for digital innovation among MSEs. The proposed conceptual framework is presented in Figure 1.

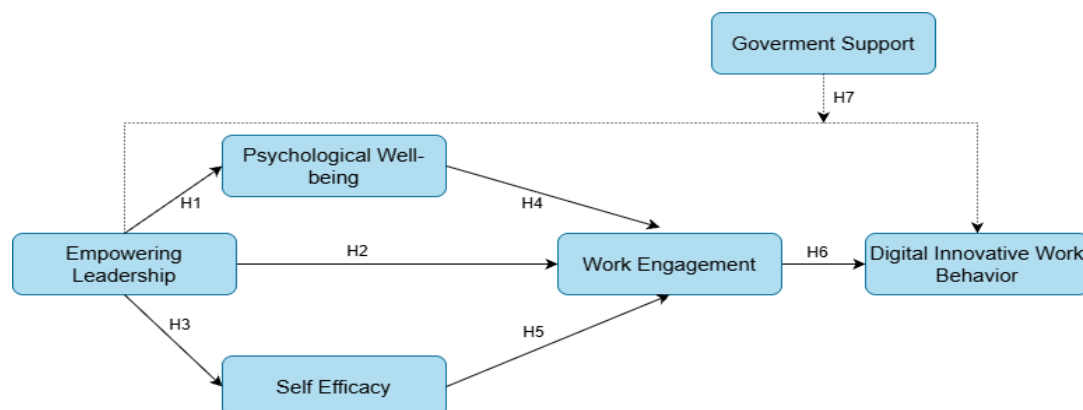


Figure 1. Proposed Conceptual Framework

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Based on the proposed conceptual framework, the following hypotheses are formulated:

H1: Empowering Leadership positively affects Psychological Well-Being.

H2: Empowering Leadership positively affects Work Engagement.

H3: Empowering Leadership positively affects Self-Efficacy.

H4: Psychological Well-Being positively affects Work Engagement.

H5: Self-Efficacy positively affects Work Engagement.

H6: Work Engagement positively affects Digital Innovative Work Behavior.

H7: Government Support positively affects Digital Innovative Work Behavior.

H8: Government Support moderates the relationship between Work Engagement and Digital Innovative Work Behavior.

III. RESEARCH METHOD

This study employed a quantitative, explanatory research design to examine the causal relationships among the proposed research variables. The research model consists of Empowering Leadership as the exogenous variable, Psychological Well-Being, Self-Efficacy, and Work Engagement as endogenous variables, Government Support as both an independent variable and a moderating variable, and Digital Innovative Work Behavior as the ultimate endogenous variable. The population comprised Micro and Small Enterprise (MSE) owners in East Java Province who had adopted digital technologies in their business operations. A total of 230 respondents from Surabaya, Malang, and Blitar participated in the study. Respondents were selected using purposive sampling, with the criteria that they were owners or managers of MSEs, had operated their businesses for at least one year, and had implemented digital technologies in business operations or marketing activities.

Primary data were collected using a structured questionnaire, scored on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0 software. The analysis consisted of two stages. The first stage involved evaluating the measurement model (outer model) by assessing indicator reliability, convergent validity, discriminant validity, composite reliability, and Cronbach's alpha. The second stage evaluated the structural model (inner model) by examining the coefficient of determination (R^2), predictive relevance (Q^2), path coefficients, and hypothesis testing via bootstrapping with 5,000 resamples. Hypotheses were considered statistically supported when the t-statistic exceeded 1.96 and the p-value was less than 0.05.

IV. RESULT

A. Respondent Profile

A total of 230 Micro and Small Enterprise (MSE) owners in East Java participated in this study. Respondents were selected using purposive sampling based on the criteria that they had operated their businesses for at least one year and had adopted digital technologies in their business operations. The respondents were classified according to gender, age, educational background, business experience, number of employees, and business sector. As shown in Table 1, the majority of respondents were female entrepreneurs (64.35%) and were in the productive age group (25–44 years). Most respondents had completed secondary or higher education and had managed their businesses for more than five years. Furthermore, most enterprises employed fewer than ten workers, indicating the typical characteristics of Micro and Small Enterprises in Indonesia. Overall, these findings suggest that the respondents had adequate business experience and were familiar with implementing digital technologies in their business activities.

Table 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	82	35.65
	Female	148	64.35
Age	20–29 years	48	20.87
	30–39 years	97	42.17
	40–49 years	58	25.22
	≥50 years	27	11.74
Education	High School	95	41.30
	Diploma	36	15.65
	Bachelor	84	36.52
	Postgraduate	15	6.53
Business Experience	1–5 years	71	30.87

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Number of Employees	6–10 years	103	44.78
	>10 years	56	24.35
	1–5	142	61.74
	6–10	57	24.78
	>10	31	13.48

B. Measurement Model Assessment

The measurement model was evaluated by assessing indicator reliability, convergent validity, internal consistency reliability, and discriminant validity. Convergent validity was examined using outer loading values and the Average Variance Extracted (AVE). The results indicate that all indicators achieved outer loading values above 0.70. In addition, Cronbach's Alpha and Composite Reliability values exceeded the recommended threshold of 0.70, while all AVE values were greater than 0.50. These findings confirm that all constructs exhibit satisfactory convergent validity and internal consistency.

Table 2. Construct Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Empowering Leadership	0.934	0.944	0.708
Psychological Well-Being	0.917	0.931	0.691
Self-Efficacy	0.924	0.937	0.714
Work Engagement	0.941	0.949	0.726
Government Support	0.908	0.926	0.676
Digital Innovative Work Behavior	0.936	0.945	0.742

Discriminant validity was evaluated using the Heterotrait–Monotrait Ratio (HTMT). As shown in Table 3, all HTMT values were below the recommended threshold of 0.90, indicating satisfactory discriminant validity.

Table 3. HTMT Values

Construct	EL	PWB	SE	WE	GS	DIWB
Empowering Leadership (EL)	—					
Psychological Well-Being (PWB)	0.764	—				
Self-Efficacy (SE)	0.738	0.781	—			
Work Engagement (WE)	0.684	0.842	0.859	—		
Government Support (GS)	0.412	0.437	0.451	0.523	—	
Digital Innovative Work Behavior (DIWB)	0.587	0.614	0.657	0.741	0.488	—

C. Coefficient of Determination (R^2)

The explanatory power of the structural model was evaluated using the coefficient of determination (R^2). As presented in Table 4, the proposed model demonstrates moderate to substantial explanatory power. Empowering Leadership explains 26.2% of the variance in Psychological Well-Being and 23.6% of the variance in Self-Efficacy. Furthermore, Empowering Leadership, Psychological Well-Being, and Self-Efficacy jointly explain 64.7% of the variance in Work Engagement. The highest explanatory power was found for Digital Innovative Work Behavior, with an R^2 value of 0.731, indicating that Work Engagement, Government Support, and their interaction explain 73.1% of the variance in Digital Innovative Work Behavior.

Table 4. Coefficient of Determination (R^2)

Endogenous Construct	R^2	Interpretation
Psychological Well-Being	0.262	Moderate
Self-Efficacy	0.236	Moderate
Work Engagement	0.647	Substantial
Digital Innovative Work Behavior	0.731	Substantial

D. Structural Model

The structural relationships among the constructs were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS. The significance of the hypothesized relationships was evaluated using the bootstrapping procedure with 5,000 resamples based on the standardized path coefficient (β), t-statistic, and p-value.

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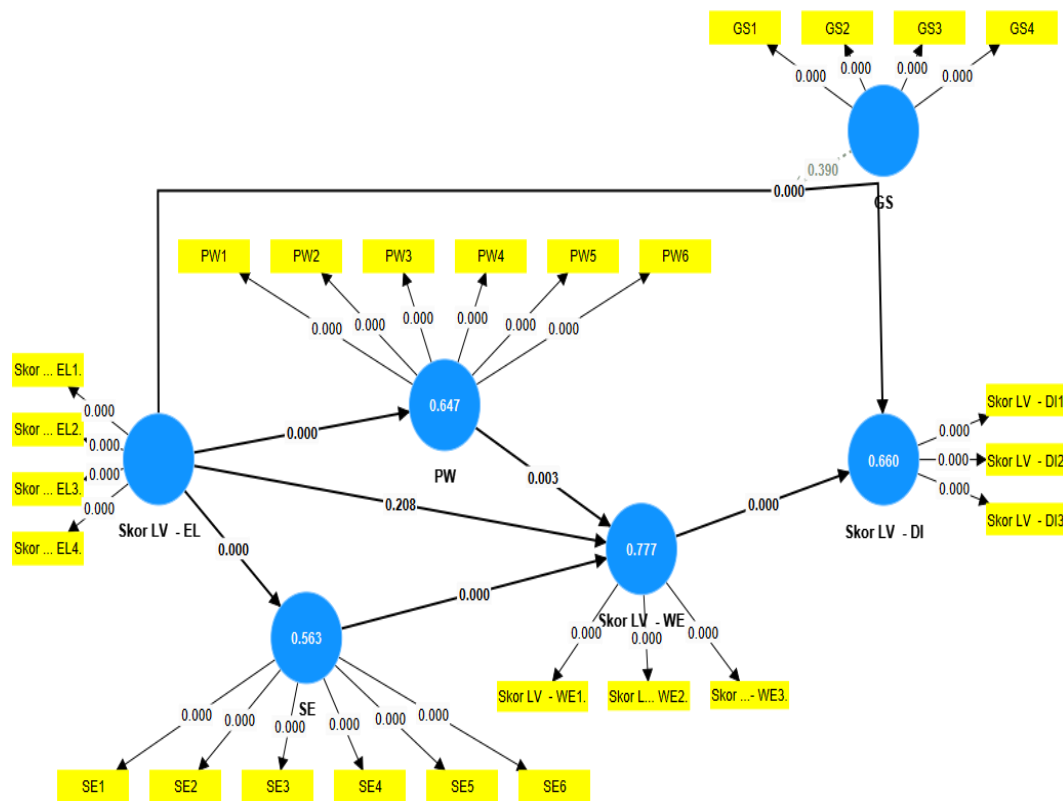


Figure 2. Structural Model Results (PLS-SEM Bootstrapping)

The results of the direct effect analysis are presented in **Table 5**.

Table 5. Results of Direct Effect Testing

Hypothesis	Relationship	β	SE	t-value	p-value	Decision
H1	Empowering Leadership $\rightarrow$ Psychological Well-Being	0.805	0.028	28.807	0.000	Supported
H2	Empowering Leadership $\rightarrow$ Work Engagement	0.099	0.078	1.264	0.206	Not Supported
H3	Empowering Leadership $\rightarrow$ Self-Efficacy	0.751	0.045	16.861	0.000	Supported
H4	Psychological Well-Being $\rightarrow$ Work Engagement	0.281	0.096	2.922	0.003	Supported
H5	Self-Efficacy $\rightarrow$ Work Engagement	0.552	0.078	7.064	0.000	Supported
H6	Work Engagement $\rightarrow$ Digital Innovative Work Behavior	0.563	0.064	8.732	0.000	Supported
H7	Government Support $\rightarrow$ Digital Innovative Work Behavior	0.270	0.081	3.321	0.001	Supported
H8	Government Support $\times$ Work Engagement $\rightarrow$ Digital Innovative Work Behavior	0.046	0.047	0.973	0.331	Not Supported

The results indicate that Empowering Leadership has a positive and significant effect on Psychological Well-Being ($\beta = 0.805$, $t = 28.807$, $p < 0.001$) and Self-Efficacy ($\beta = 0.751$, $t = 16.861$, $p < 0.001$). However, the direct effect of Empowering Leadership on Work Engagement is not significant ($\beta = 0.099$, $t = 1.264$, $p = 0.206$), indicating that empowering leadership alone is insufficient to directly enhance employees' work engagement. Furthermore, Psychological Well-Being ($\beta = 0.281$, $t = 2.922$, $p = 0.003$) and Self-Efficacy ($\beta = 0.552$, $t = 7.064$, $p < 0.001$) positively and significantly influence Work Engagement. These findings indicate that employees with higher psychological well-being and stronger confidence in their abilities are more likely to demonstrate higher levels of vigor, dedication, and absorption in their work.

The analysis also reveals that Work Engagement has a strong positive effect on Digital Innovative Work Behavior ($\beta = 0.563$, $t = 8.732$, $p < 0.001$). In addition, Government Support directly and positively influences Digital Innovative Work Behavior ($\beta = 0.270$, $t = 3.321$, $p = 0.001$), suggesting that government initiatives, including digital training, financial assistance, and supportive

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policies, enhance innovation among Micro and Small Enterprises. However, the moderating effect of Government Support on the relationship between Work Engagement and Digital Innovative Work Behavior is not significant ($\beta = 0.046$, $t = 0.973$, $p = 0.331$). Therefore, Government Support does not strengthen the influence of Work Engagement on Digital Innovative Work Behavior.

V. DISCUSSION

The findings demonstrate that Empowering Leadership has a significant positive effect on Psychological Well-Being among Micro and Small Enterprise (MSE) owners in East Java. This result indicates that leaders who encourage participation, delegate authority, and provide greater autonomy improve employees' psychological well-being. Such leadership practices create a supportive work environment that enables individuals to feel trusted, valued, and capable of managing their work effectively. These findings support the Job Demands–Resources (JD-R) Theory, which argues that organizational resources enhance employees' personal resources, thereby improving psychological functioning. The result is consistent with previous studies by (Kim & Beehr, 2019; J. K. Park et al., 2019), who found that empowering leadership positively influences employees' psychological well-being.

The study also reveals that Empowering Leadership significantly enhances Self-Efficacy. Leaders who provide employees with opportunities to make decisions independently and encourage problem-solving strengthen employees' confidence in their own capabilities. Individuals with higher self-efficacy are more confident in dealing with work challenges and adapting to digital transformation. This finding supports Social Cognitive Theory (Bandura, 1999), which emphasizes that self-efficacy is an important determinant of motivation and performance. Similar findings were reported by (Bakker et al., 2007; Luthans et al., 2007), who concluded that empowering organizational practices improve employees' confidence and work performance.

However, the relationship between Empowering Leadership and Work Engagement was found to be statistically insignificant. This finding indicates that empowering leadership alone is insufficient to directly increase employees' engagement in the context of Micro and Small Enterprises. Although leaders provide autonomy and empowerment, employees' level of engagement depends more strongly on their internal psychological resources. This result suggests that the influence of empowering leadership on work engagement occurs indirectly through improvements in psychological well-being and self-efficacy rather than through a direct mechanism. Therefore, personal resources play a more important role in fostering employee engagement than leadership practices alone.

The findings further indicate that both Psychological Well-Being and Self-Efficacy positively influence Work Engagement. Employees who experience positive psychological conditions and possess strong confidence in their abilities are more likely to demonstrate vigor, dedication, and absorption in their work. These personal resources enable individuals to cope effectively with work demands, technological changes, and business uncertainty. The results are consistent with the JD-R Theory, which proposes that personal resources function as motivational drivers of work engagement. Previous studies by Ryff (1989), (Koroglu & Ozmen, 2021; Schaufeli et al., 2002), similarly reported that psychological well-being and self-efficacy significantly improve employee engagement.

Furthermore, Work Engagement was found to have the strongest positive effect on Digital Innovative Work Behavior. Highly engaged individuals tend to generate, promote, and implement innovative ideas using digital technologies to improve organizational performance. Employees who are enthusiastic, dedicated, and fully absorbed in their work are more willing to explore new technologies and develop creative digital solutions. This finding reinforces the JD-R Theory by confirming that work engagement serves as the primary motivational mechanism leading to innovative work behavior. The result is also consistent with previous studies conducted by (Bakker & Demerouti, 2017; Joo et al., 2022; Schaufeli et al., 2006), which demonstrated that highly engaged employees exhibit stronger innovative behavior.

The study also confirms that Government Support has a direct positive effect on Digital Innovative Work Behavior. Government initiatives, including digital literacy training, business mentoring, financial assistance, digital infrastructure development, and supportive regulations, provide an external environment that facilitates innovation among Micro and Small Enterprises. Such support encourages entrepreneurs to adopt digital technologies and implement innovative business practices, thereby accelerating digital transformation within the MSE sector. These findings are consistent with previous studies by (Mahesh et al., 2023; Maulana & Iskandar, 2023; Priharsari et al., 2023; Zhang & Xu, 2022), which emphasized the strategic role of government policies in promoting digital innovation.

Nevertheless, the moderating effect of Government Support on the relationship between Work Engagement and Digital Innovative Work Behavior was not supported. This finding indicates that government support does not significantly strengthen the positive influence of work engagement on digital innovative behavior. One possible explanation is that government

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programs generally benefit all enterprises regardless of their level of employee engagement. Consequently, although government support directly promotes innovation, it does not necessarily amplify the contribution of highly engaged employees to innovative behavior. This result suggests that government support functions primarily as a direct enabling factor rather than as a contextual moderator. Future research may therefore consider other moderating variables, such as digital organizational culture, digital readiness, innovation capability, or technological infrastructure, to better explain the relationship between work engagement and digital innovative work behavior.

Overall, this study extends the Job Demands–Resources Theory by demonstrating that empowering leadership contributes to digital innovative work behavior primarily through the development of employees' psychological resources. The findings highlight the importance of psychological well-being, self-efficacy, and work engagement as key mechanisms for promoting digital innovation among Micro and Small Enterprises. From a practical perspective, business owners should focus on creating empowering leadership practices while simultaneously strengthening employees' psychological capacity through continuous learning, coaching, and competency development. In addition, government agencies should continue providing digital support programs, as these initiatives directly encourage innovation and enhance the competitiveness of Micro and Small Enterprises in the digital economy.

CONCLUSIONS

This study examined the effect of Empowering Leadership on Digital Innovative Work Behavior (DIWB) among Micro and Small Enterprises (MSEs) in East Java by incorporating the mediating roles of Psychological Well-Being, Self-Efficacy, and Work Engagement, as well as the moderating role of Government Support. The findings demonstrate that Empowering Leadership significantly enhances Psychological Well-Being, Self-Efficacy, and Work Engagement. Furthermore, Psychological Well-Being and Self-Efficacy positively influence Work Engagement, which, in turn, promotes Digital Innovative Work Behavior. The results also confirm that Empowering Leadership directly contributes to Digital Innovative Work Behavior and indirectly influences it through the sequential mediation of Psychological Well-Being, Self-Efficacy, and Work Engagement. In addition, Government Support strengthens the positive relationship between Work Engagement and Digital Innovative Work Behavior, indicating that external institutional support enhances employees' engagement in generating digital innovation.

The study contributes theoretically by extending the Job Demands–Resources (JD-R) Theory through the integration of leadership, psychological resources, work engagement, and institutional support into a comprehensive framework for explaining Digital Innovative Work Behavior in the context of MSEs. From a practical perspective, the findings suggest that business owners and organizational leaders should adopt empowering leadership practices that encourage autonomy, participation, and employee development. At the same time, government agencies should continue strengthening digital transformation initiatives through training programs, financial assistance, business mentoring, and the development of digital infrastructure to foster innovation among MSEs.

Despite these contributions, this study has several limitations. The data were collected from MSEs located only in East Java using a cross-sectional research design, which may limit the generalizability of the findings and prevent causal inferences over time. Future research is therefore encouraged to employ longitudinal designs, include broader geographical coverage, and examine additional organizational and technological factors, such as digital leadership, organizational learning capability, digital readiness, and innovation capability, to provide a more comprehensive understanding of Digital Innovative Work Behavior across different business contexts

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