

Does Social Media Use Increase Innovative Work Behavior? The Mediating Role of Digital Engagement

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Abstract

This study examines the mediating role of digital engagement in the relationship between social media use and innovative work behavior among employees of Perumda Air Minum Surya Sembada Kota Surabaya, specifically within the context of promoting the Customer Information System (CIS) application. Using a quantitative approach with Partial Least Squares–Structural Equation Modeling (PLS-SEM), data were obtained from 70 eligible employees after the data screening process. The findings reveal that social media use positively and significantly influences both innovative work behavior and digital engagement. Furthermore, digital engagement itself demonstrates a significant positive effect on innovative work behavior. Crucially, digital engagement proves to be a significant mediator in the relationship between social media use and innovative work behavior. These results underscore that active digital engagement via social media platforms can effectively foster employee innovation, particularly in supporting organizational digital product promotion. The study strengthens the theoretical framework of Uses and Gratifications (U&G) by highlighting psychological engagement as a key mechanism. Practically, it offers organizations a blueprint for designing digital engagement strategies that enhance employee-driven innovation for digital product advancement.

Keywords: social media use; digital engagement; innovative work behavior; public sector; uses and gratifications theory

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Introduction

The digital transformation era has created a competitive environment that requires organizations, including in the public sector, to continuously innovate in improving service quality (Mulgary & Albury, 2003). Organizational survival is strongly influenced by employees' innovative work behavior, defined as an active process of generating, promoting, implementing new, and useful ideas (De Jong & Den Hartog, 2010; Herlina et al., 2023). Such behaviour serves not only as a source of competitive advantage but also as a critical driver of organizational change (Khan & Khan, 2018; Wang & Li, 2023). At the same time, advances in digital technology have fundamentally transformed communication patterns, with social media emerging as an effective tool for connection, relationship building, and interactive information sharing (Herlina et al., 2023; Nusair et al., 2024; Zhao et al., 2021)

In Indonesia, this shift is particularly pronounced. Data from Social (2025) show that Indonesia has approximately 143 million active social media users, accounting for 50.2% of the total population. Internet penetration reaches 74.6% with approximately 212 million users, the majority accessing

through smartphones (99.5%). On average, Indonesians spend over seven hours daily online, with social media use (97.8%) remaining the most dominant digital activity. The main motivations for internet use include information seeking (82.7%) and staying connected with friends and family (72.8%). These patterns indicate that social media has become deeply embedded in daily life, including in work related communication, making it increasingly relevant to examine its role within organizational contexts.

This pervasive digital landscape presents both an inescapable reality and a significant opportunity for Indonesian organizations. However, a critical gap exists between the high volume of personal social media use and our understanding of how it can be harnessed to achieve organizational goals, particularly in fostering employee-driven innovation within the public sector. Social media use is theorized to stimulate digital engagement, which refers to employees' active and psychologically invested participation through digital platforms. In turn, such engagement is expected to encourage innovative work behavior. Despite this theoretical linkage, empirical studies examining this integrated mechanism remain limited, especially in public utility contexts (Chen & Zheng, 2024; Wahyuni & Rahman, 2025).

To address this gap, this study focuses on a relevant and proactive case: Perusahaan Umum Daerah Air Minum Surya Sembada Kota Surabaya. In this organization, employees act as change agents by voluntarily using personal social media platforms, such as WhatsApp and Instagram, to promote the Customer Information System (CIS), a public service application designed to facilitate citizen access to water utility services without requiring in-person visits to the service office. This practice reflects a blurring of personal and professional boundaries and represents a form of gratification-seeking digital engagement (Sepka, 2024). This setting provides a unique vantage point to investigate the relationships between social media use, digital engagement, and innovative work behavior.

This study makes two main contributions. First, it provides new empirical evidence on the mediating role of digital engagement in the Indonesian public utility sector, a context that remains underexplored compared to the private sector (Herlina et al., 2023; Zhao et al., 2021). Second, it contributes to the application of Uses and Gratifications (U&G) theory (Ruggiero, 2000) by explaining how voluntary personal social media use for promoting CIS fosters digital engagement and, subsequently, innovative work behavior. Employees' efforts serve both functional purposes (ease of sharing) and social recognition, and the fulfillment of these gratifications is associated with higher levels of engagement, which may facilitate innovative work outcomes (Nusair et al., 2024; Sun & Ma, 2024; Zhao et al., 2021).

Accordingly, this study is designed to answer the following research questions: (1) How do employees' personal social media use and digital engagement influence innovative work behavior when promoting the CIS application at Perumda? (2) Does digital engagement mediate the influence of personal social media use on innovative work behavior? The objectives are to analyze these direct influences and to examine the mediating role of digital engagement.

This study contributes to expanding theoretical and empirical understanding of social media use and innovative work behavior by introducing digital engagement as a mediating variable, while also providing practical insights for strengthening digital engagement and innovation culture in public sector organizations.

Literature Review

This study is grounded in the U&G Theory, which provides a robust framework for understanding how employees actively select and use media to fulfill their psychological and social needs (Katz et al., 1973; Stafford et al., 2004). Unlike traditional media effects models that conceptualize audiences as passive recipients, U&G theory emphasizes individuals as active, goal-oriented users who consciously choose media based on expected gratifications (Katz et al., 1973). A central assumption of U&G is that media use is selective and motivated by users' rational awareness of their own needs, as well as their expectations that specific media features and content will satisfy those needs (Ruggiero, 2000). Because the theory explicitly links media choice with behavioral outcomes, it is particularly suitable for examining media use motivations and impacts within organizational contexts.

The relevance of U&G theory has been revitalized in the era of computer-mediated communication, where digital media characteristics such as interactivity, visibility, and asynchrony enhance users' ability to actively seek and obtain gratification (Carolyn & Back, 1996; Louisa & E. Lincoln, 1998). In organizational settings, social media embeds multiple dimensions of information sharing, social interaction, self-expression, and professional signaling within a single platform, making it a unique context for studying technology use and work-related outcomes. Ali-Hassan et al. (2015) extend the U&G perspective by demonstrating that employees' motivations for using social media at work are directly associated with different forms of engagement, which subsequently influence job-related outcomes such as performance and innovation. This perspective positions social media use not merely as a communication tool, but as a psychologically driven activity that can foster deeper digital engagement when individual gratifications are fulfilled.

Within the context of this study, employees' use of personal social media accounts to promote the CIS application reflects an active gratification-seeking behavior consistent with Katz et al. (1973) typology of needs, including cognitive, affective, social integrative, and personal identity needs. Cognitively, employees seek and disseminate information related to the CIS application; affectively, they experience pride, emotional satisfaction, and a sense of contribution by supporting customers and organizational goals. Social integrative needs are fulfilled through strengthened relationships with the public and colleagues, while personal identity needs are reinforced as employees affirm their professional role and self-image as technologically adaptable, informative, and prosocial individuals. In line with Ali-Hassan et al. (2015), the fulfillment of these needs encourages sustained digital engagement, characterized by attention, involvement, and proactive use of digital platforms. Consequently, U&G theory provides a solid theoretical foundation for explaining how personal social media use, driven by psychological gratification, evolves into digital engagement that can ultimately stimulate innovative work behavior in support of public service objectives.

Social Media Use

Social media use has become central to contemporary organizational life, shaping communication, collaboration, and professional engagement. According to Clampitt (2020), social media is defined as an electronic communication platform enabling users to share text and visuals within selected communities, allowing participation without formal authority. Employees increasingly use personal accounts to share organizational information, interact with stakeholders, and promote services, effectively acting as informal organizational representatives (Chen & Zheng, 2024). Drawing on the U&G theory, Ali-Hassan et al. (2015) classify social media use into social, hedonic, and cognitive dimensions, while behavioral approaches focus on consumption, contribution, creation, and

conversation (Muntinga et al., 2011; Yue, 2022). Empirical studies show platforms like WhatsApp and Instagram are widely used for work-related communication and promotion, though research on voluntary promotion of public sector services remains limited (Kasim et al., 2022; Wang & Li, 2023). Therefore, this study conceptualizes the use of social media as the promotion of CIS applications by employees through their personal WhatsApp and Instagram accounts.

Digital Engagement

Digital engagement refers to employees' psychological attachment and active involvement in digital technologies supports organizational goals, encompassing cognitive focus, emotional attachment, and proactive behavior (Schaufeli et al., 2002; Shuck et al., 2016). Engagement fosters a sense of belonging, motivating sustained participation and discretionary effort (Serrat, 2017). Cognitively engaged employees understand systems; emotionally engaged employees develop positive attitudes; and behaviorally engaged employees actively use, share, and contribute through digital platforms (Wang & Li, 2023). Prior research shows that digital engagement enhances adaptability, proactivity, and innovation (Wahyuni & Rahman, 2025; Zia et al., 2024) and is influenced by social media use, which strengthens organizational identification and social interaction (Chen & Zheng, 2024). In this study, digital engagement is defined as employees' psychological attachment and sense of belonging toward the CIS application, reflected in consistent use and active feedback through WhatsApp and Instagram.

Innovative Work Behavior

Innovative work behavior refers to employees' actions aimed at generating, promoting, and implementing new ideas that benefit their work and organization (De Jong & Den Hartog, 2010). This behavior encompasses three key stages: idea generation, idea promotion, and idea implementation (Scott & Bruce, 1994; Michael & James L, 1989). Idea generation involves identifying problems or opportunities, idea promotion focuses on gaining support and legitimacy, and idea implementation translates ideas into practical solutions within the organization. This variable often extends beyond formal job roles and is critical for organizational improvement and adaptability. Prior studies show that employee engagement, particularly digital engagement, fosters innovative work behavior by enhancing motivation, creativity, and knowledge sharing (Amalina & Pusparini, 2024; Anindita & Rheinhard, 2023; Elamin, A. M. et al., 2024; Zia et al., 2024). Accordingly, this study operationalizes innovative work behavior as employees' proactive efforts to generate, promote, and implement ideas that enhance the CIS application, improve service delivery, and strengthen digital promotion in the public sector.

Hypotheses Development

Active use of personal social media accounts (WhatsApp and Instagram) to promote the CIS application can increase employees' psychological ownership and intrinsic motivation. Based on U&G theory, employees use social media to fulfill psychological needs such as social recognition and pride (Palmgreen & James, 1982). Positive feedback from social networks encourages employees to generate, promote, and implement innovative ideas to improve CIS utilization and service efficiency (Chen & Zheng, 2024; Herlina et al., 2023; Metz & Kanyam, 2023). In line with these findings, Acar et al. (2021) showed that active use of social media to express ideas and share information is positively related to creativity, a key element of innovative work behavior. Therefore, we hypothesize:

H1: Social Media Use positively affects Innovative Work Behavior.

Digital engagement reflects the psychological bond, enthusiasm, and active involvement of employees in the use of CIS applications. A number of studies show that work-related social media use has a positive effect on engagement, especially when it supports communication, collaboration, and fulfillment of work needs (Oksa et al., 2021; Sun & Ma, 2024; Zhao et al., 2021). However, research by Wang & Li (2023) found that the use of non-work social media can reduce engagement through increased work–family conflict, while Yue (2022) revealed a paradoxical effect, whereby the use of social media in a work context can strengthen psychological bonds while triggering role conflict. In this study, the use of social media that is integrated with CIS and oriented towards fulfilling work needs is expected to be more dominant in strengthening psychological bonds, thereby increasing digital engagement. Therefore, the following hypothesis is proposed:

H2: Social Media Use positively affects Digital Engagement.

Employees with high digital engagement have a deeper understanding and proactive involvement in digital systems. Based on Uses and Gratifications (U&G), engagement reflects fulfilled satisfaction, such as competence and social connection, which creates conditions conducive to innovative behavior (Elamin et al., 2024; Messmann et al., 2017; Wahyuni & Rahman, 2025). Intrinsic engagement encourages employees to generate, promote, and implement innovative ideas in the utilization of CIS. Empirical findings show that employee engagement has a positive effect on innovative work behavior through increased motivation, creativity, and work initiative (Anindita & Rheinhard, 2023; Hazem et al., 2022). Therefore, we propose the following hypothesis:

H3: Digital Engagement positively affects Innovative Work Behavior.

Theoretically, U&G explains that gratification-seeking motivation (represented by social media use) encourages active engagement with the CIS application. This intensive engagement yields gratifications such as competence feelings and recognition (Katz et al., 1973), which fulfill needs and generate positive energy for innovative work behavior (Amalina & Pusparini, 2024; Chen & Zheng, 2024; Kasim et al., 2022; Zhao et al., 2021). Therefore, CIS promotion on personal social media first enhances digital engagement, which subsequently triggers innovative work behavior. Accordingly, we propose:

H4: Digital Engagement mediates the effect of Social Media Use on Innovative Work Behavior.

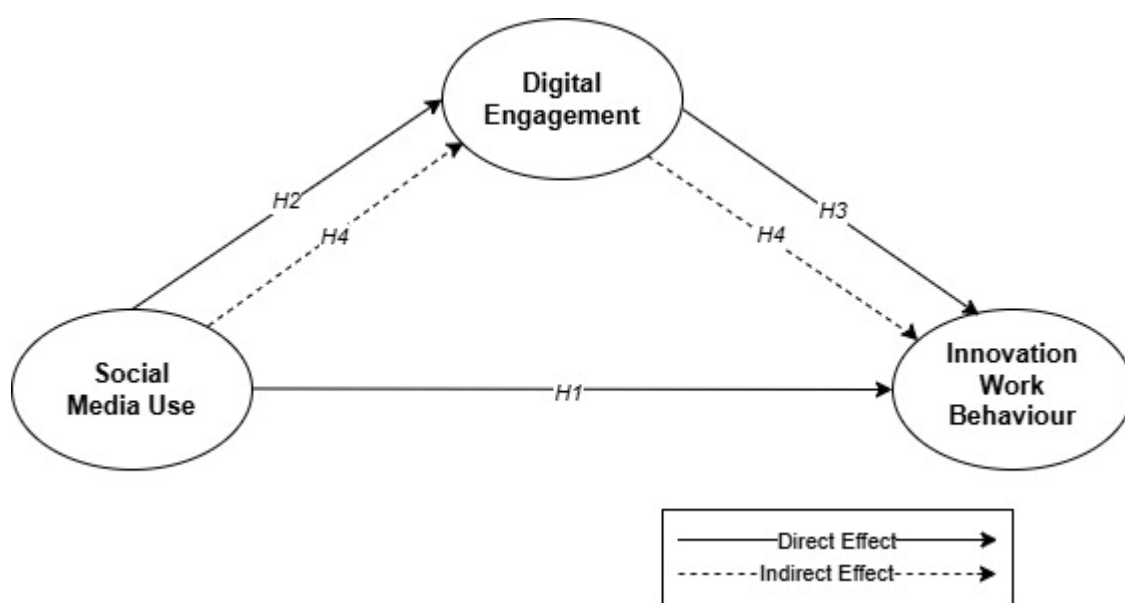


Figure 1. Theoretical Framework

Based on the conceptual framework in Figure 1, this study examines how employees' use of social media can encourage innovative work behavior, both directly and indirectly through digital engagement as a mediating variable. This framework emphasizes the role of digital engagement as a psychological mechanism that bridges the relationship between social media use and innovative work behavior.

Methods

Research Design

This study uses a quantitative approach with a cross-sectional survey design to analyze the relationship between personal social media use, digital engagement, and innovative work behavior among Perumda employees (Chen & Zheng, 2024; Elamin et al., 2024). The cross-sectional design allows data collection at a single point in time to capture employee perceptions, levels of digital engagement, and innovative behaviors related to the promotion of CIS applications. Data collection was conducted over two months (September–October 2025) using a structured questionnaire with a Likert scale. The questionnaire was distributed online via Google Forms distributed via WhatsApp and offline via printed questionnaires distributed directly to employees in various work units. This approach was used to ensure the accessibility of respondents from various age groups and work backgrounds. This survey method allows for consistent measurement between respondents and supports statistical analysis for testing research hypotheses.

Population and Sample

The research population included all employees of Perumda. The sampling technique used was purposive sampling, with the main criterion being employees who had participated in the Airo Innovation Festival competition, as they were considered to have direct exposure to the context of innovation and the application of CIS.

As part of the sampling procedure, all respondents were required to answer a screening question at the beginning of the questionnaire, namely, "Have you ever participated in the Airo Innovation Festival competition?" Only respondents who answered "Yes" could proceed to the main part of the questionnaire. This mechanism aimed to increase the contextual validity of the data by ensuring that all respondents had relevant experience with the research object.

The questionnaire was distributed through two channels to reach respondents who met the research criteria. Specifically, a list of 132 employees who had previously participated in the Airo Innovation Festival was used as the initial distribution channel. In addition, printed questionnaires were also distributed more widely within the organization to maintain an adequate response rate, while still maintaining the respondent selection criteria.

After the data screening and cleaning process, 70 complete and valid questionnaires were used in the analysis. The final sample size ($n = 70$) was considered adequate for PLS-SEM-based analysis in accordance with general guidelines (Hair et al., 2014). Demographically, respondents were predominantly male (73.0%), with relatively long work experience, where 45.71% had worked for more than ten years. In terms of age, the largest group was in the 31–35 age range (32.9%), while nearly half of the respondents (47.2%) were 36 years of age or older. The majority of respondents had a bachelor's degree (52.86%) and held staff or senior staff positions (80.0%).

Measures

In this study, all constructs were measured using a 5-point likert scale, ranging from 1 (strongly

disagree) to 5 (strongly agree), in accordance with (Wang & Li, 2023). A total of 23 statement items were presented to measure all research constructs. Social Media Use was measured using a 5-item scale adapted from (Odoom et al., 2017). This scale includes (1) information sharing activities (4 items) and (2) promotional communication activities (3 items) that assess the extent to which employees of Perumda utilize personal social media such as WhatsApp and Instagram in introducing the CIS application. This study assessed innovative work behavior using a 10-item scale (idea exploration 3 items, idea generation 2 items, idea championing 3 items, and idea implementation 2 items developed by (De Jong & Den Hartog, 2010). Furthermore, digital engagement was measured using a 6-item scale adapted from Zia et al. (2024) based on This scale includes (1) focus and attention (2 items), (2) personal meaning and sense of belonging (2 items), and (3) extra effort towards CIS (2 items).

Data Analysis

Data analysis was performed using Partial Least Squares - Structural Equation Modeling (PLS-SEM) with SmartPLS 3 software. This method was selected due to its ability to handle non-normal data distribution, effectiveness with complex models and relatively small sample sizes, and strong predictive capabilities for mediation analysis (Hair et al., 2020). The analysis followed a two-stage approach: measurement model evaluation for validity and reliability testing, followed by structural model assessment for hypothesis testing, consistent with recent studies in digital transformation and social media use (Bodhi et al., 2024; Chen & Zheng, 2024; Herlina et al., 2023; Hizam et al., 2023; Metz & Kanyam, 2023)

Results and Discussion

Measurement Model Assessment

In the first step, we execute the measurement model in SmartPLS 3.0 to verify the proposed constructs are consistent with the proposed variance. Therefore, the first step is to test the convergent and discriminant validity of the measurement model. This test aims to ensure that each construct has good internal reliability and adequate convergent and discriminant validity. Convergent validity was assessed using three key metrics: outer loadings, internal consistency reliability (CR and CA), and Average Variance Extracted (AVE). The measurement model assessment shows strong psychometric properties. First, outer loadings were analyzed. Based on standard criteria, loadings above 0.50 are considered acceptable (Lata et al., 2021), while 0.70 is considered the ideal threshold (Hair et al., 2019).

In this study, all indicators were found to be above the minimum acceptable threshold of 0.50. Although most items exceeded the ideal threshold of 0.70 specifically DE_1 at 0.660, IWB_1 at 0.511, and IWB_2 at 0.694, were retained. The decision to retain these items was strongly supported by the fact that their inclusion did not interfere with the overall reliability or convergent validity of the construct.

This is confirmed by the high construct reliability scores. As shown in Table 1, Composite Reliability (CR) values ranged from 0.923 to 0.945, and Cronbach's Alpha (CA) values ranged from 0.900 to 0.933. All these values are substantially above the 0.70 threshold (Hair et al., 2020), confirming strong internal consistency. Furthermore, strong convergent validity was confirmed, with Average Variance Extracted (AVE) values ranging from 0.634 to 0.669. These are well above the minimum 0.50 threshold, indicating that each construct explains more than half of the variance of its indicators (Hair et al., 2014a, 2020).

Table 1. Measurement Model Results

Construct	Loadings	Composite Reliability	Cronbach's Alpha	AVE
Social Media use		0.929	0.911	0.652
At Perumda Air Minum Surya Sembada Surabaya, I often share information about the CIS application on my personal WhatsApp status.	0.847			
At the Surabaya City Water Supply Company (Perumda Air Minum Surya Sembada), I actively post about the convenience of the CIS application on my personal Instagram account.	0.745			
At the Surabaya City Water Supply Company (Perumda Air Minum Surya Sembada), I recommend the CIS app to my family through personal WhatsApp chats.	0.777			
I voluntarily introduced the CIS application to friends and acquaintances through personal social media.	0.866			
I use my personal Instagram story to show how to use the CIS application	0.759			
I often share positive experiences about the CIS app in my family WhatsApp group.	0.794			
I use my personal social media accounts to explain the advantages of the CIS app to my closest friends and family	0.857			
Digital Engagement		0.923	0.900	0.669
When performing digital tasks related to the CIS application, I am completely focused and give my full attention.	0.660			
I feel very engaged when using or discussing the CIS application at work.	0.775			
The CIS application is very important to me in carrying out my work.	0.818			
I feel a strong emotional connection when sharing my CIS experiences on social media.	0.871			

I am willing to go the extra mile with regard to the CIS application, such as promoting it without being asked by my superiors.	0.874		
I push myself to exceed expectations in matters related to CIS.	0.885		
Innovative Work Behavior	0.945	0.933	0.634
I actively pay attention to issues related to the CIS application that need to be improved.	0.511		
I often think about how to improve the effectiveness of promoting CIS application services through social media.	0.694		
I actively seek new methods of using social media to communicate information about the CIS application to customers.	0.805		
I strive to generate creative ideas to increase customer engagement through social media content related to the CIS application.	0.895		
I often find new approaches to optimize the use of social media to educate customers about CIS App services.	0.784		
I actively share and promote new ideas to my superiors about utilizing digital platforms to improve CIS Application services.	0.853		
I try to convince my colleagues to support innovative ideas related to the use of social media in promoting the CIS Application.	0.788		
I actively contributed to the implementation of new ideas for the development of the CIS Application.	0.876		
I systematically apply innovative ideas related to the CIS Application in my daily work practices.	0.819		
I strive to develop new innovations in the use of digital technology to improve the quality of CIS Application services.	0.866		

Source: Processed data (2025)

Following convergent validity, the discriminant validity of the measurement model was used. Discriminant validity was tested using the Fornell-Larcker criteria (Table 2) by comparing the square

root of the AVE value with the correlation between constructs confirming distinctiveness between constructs.

Table 2. Discriminant Validity - Fornell-Larcker Criterion

Construct	Mean	SD	DE	IWB	SMU
Social Media Use	2.98	0.946	0.602	0.562	0.808
Innovative Work Behavior	3.63	0.655	0.669	0.797	
Digital Engagement	3.77	0.693	0.818		

Source: Processed data (2025)

Based on respondents' assessments of the research variables, one of the latent variables is in the high category, and two latent variables are in the medium category. We interpreted the respondents' answers using the three-box method based on a five-point Likert scale. Based on the criteria for selecting Likert scale answers, the range of five must be divided by three, resulting in a range of 1.33 (1.00 - 2.33 = low; 2.34 - 3.67 = medium; 3.68 - 5.00 = high) (Sakaran & Bougie, 2016). Based on the respondents' assessment of the research variables (social media use = 2.98; innovative work behavior = 3.63; digital engagement = 3.77), one of the latent variables is in the high category; and two latent variables are in the moderate category.

Structural model assessment

The structural model was evaluated using a bootstrapping procedure with 5,000 samples to test the hypothesized relationships. First, the explanatory power of the model was evaluated using the R-squared (R^2) value (Figure 2). The model explained 36.3% of the variance in Digital Engagement ($R^2 = 0.363$) and 48.8% of the variance in Innovative Work Behavior ($R^2 = 0.488$). Next, the hypothesized paths were tested (Table 3), showing significant relationships supporting all hypotheses. Social media use showed a positive and significant effect on innovative work behavior ($\beta = 0.249$, $t = 2.369$, $p = 0.018$), supporting H1.

Table 3. Hypothesis Testing Results

Relationship	Coefficient	t-statistics	p-value	Decision
Direct Effect				
Social Media Use → Innovative Work Behavior	0.249	2.369	0.018	Accepted
Social Media Use → Digital Engagement	0.602	7.864	0.000	Accepted
Digital Engagement → Innovative Work Behaviour	0.519	4.343	0.000	Accepted
Indirect Effect				
Social Media Use → Digital Engagement → Innovative Work Behavior	0.313	3.878	0.000	Accepted
Level of significance (5%): t-statistics ≥ 1.96 ; p-value $< .05$				

Source: Processed data (2025)

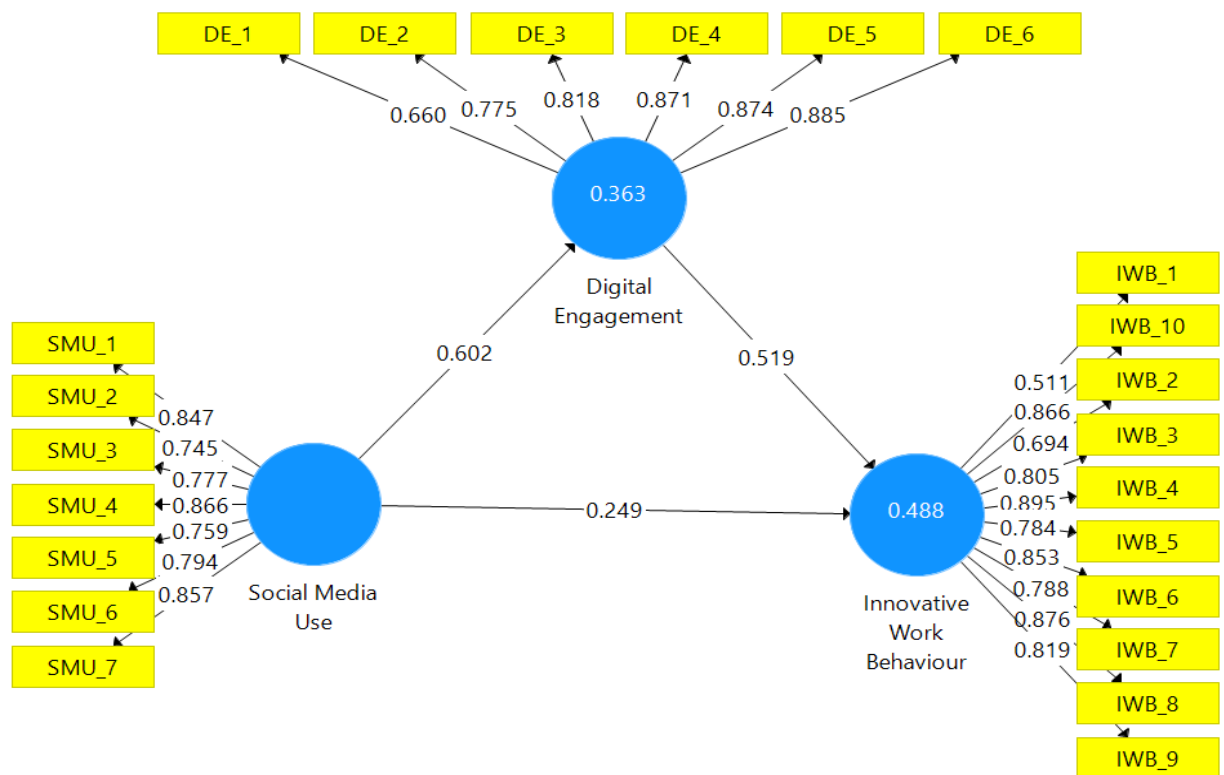


Figure 2. Structure Mode Assessment

A significant impact was also found from social media use to digital engagement ($\beta = 0.602$, $t = 7.864$, $p < .001$), supporting H2. Additionally, digital engagement showed a strong positive impact on innovative work behavior ($\beta = 0.519$, $t = 4.343$, $p < .001$), supporting H3. The results showed that digital engagement significantly mediated the relationship between social media use and innovative work behavior ($\beta = 0.313$, $t = 3.878$, $p < 0.001$), supporting H4.

Discussion

The findings indicate that social media use positively and significantly affects innovative work behavior (H1), aligning with previous studies (Chen & Zheng, 2024; Herlina et al., 2023; Metz & Kanyam, 2023). This result suggests that work-related social media use can serve as a practical mechanism for stimulating employee-driven innovation in public organizations. At Perumda, this relationship is strengthened by coordinated digital collaboration: promoting the CIS application involves cross-unit communication via chat groups and virtual meetings, transforming personal social media use into a collective task. Such coordination creates shared responsibility and psychological ownership, motivating employees to experiment with content formats and dissemination strategies on WhatsApp and Instagram. These activities directly stimulate innovative behaviors, particularly idea generation and implementation. Thus, social media use functions as a catalyst for innovation through structured and purpose-driven digital collaboration.

Similarly, social media use positively affects digital engagement (H2), consistent with prior research (Oksa et al., 2021; Zhao et al., 2021). In the Perumda context, employees perceive voluntary CIS promotion as a pro-social contribution rather than an intrusive organizational demand. This

perception reduces the likelihood of resource depletion and work-family conflict, which have been identified as potential negative consequences of work-related social media use (Wang & Li, 2023; Yue, 2022). Instead, this activity enhances employees' sense of purpose, relevance, and belonging to the organization. When social media use fulfills these psychological needs, employees become more cognitively and emotionally engaged with the CIS application, thereby strengthening digital engagement within the organization.

Furthermore, digital engagement also significantly enhances innovative work behavior (H3), supporting findings from (Anindita & Rheinhard, 2023; Elamin, A. M. et al., 2024; Wahyuni & Rahman, 2025). Within Perumda, this relationship is reflected in employees' strong involvement with the CIS application, which encourages proactive efforts to improve and innovate work practices. Programs such as the AIRO Innovation Festival further reinforce this engagement by facilitating cross-generational collaboration, where younger employees contribute digital skills and senior employees provide contextual and operational knowledge. Through this interaction, digital engagement functions as a psychological and cognitive resource that enables employees to move beyond routine tasks and engage in innovative work behavior.

Finally, digital engagement mediates the effect of social media use on innovative work behavior (H4), echoing prior research (Amalina & Pusparini, 2024; Chen & Zheng, 2024; Kasim et al., 2022; Zhao et al., 2021). This finding underscores an important psychological process in which social media use contributes to innovation only when it fosters meaningful digital engagement. From the Uses and Gratifications perspective, employees' gratification-seeking activities through social media strengthen emotional involvement, cognitive focus, and motivational energy, which in turn support innovative work behavior.

These findings indicate that all proposed hypotheses are supported within the organizational environment of Perumda. The results underscore the importance of structured digital collaboration and voluntary digital engagement in translating personal social media use into innovation outcomes in public sector organizations.

Conclusions

This study concludes that employees' active use of personal social media platforms, specifically WhatsApp and Instagram to promote the CIS application at Perumda significantly enhances their innovative work behavior, with digital engagement serving as a critical psychological mediator. The findings demonstrate that such use fosters psychological attachment, enthusiasm, and a stronger sense of belonging, which in turn stimulates creativity and innovation in the workplace. This study offers three key theoretical contributions. First, it extends U&G theory (Ruggiero, 2000) to the context of proactive, work-related digital behavior in public organizations, demonstrating that employees' voluntary use of personal social media for promoting the CIS application fulfills cognitive, emotional, and social needs, thereby fostering digital engagement and innovation. Second, this study contributes to work engagement theory by conceptualizing digital engagement as a distinct psychological construct, in which emotional and cognitive attachment to digital tasks drives meaningful work experiences and innovative outcomes (Salim et al., 2020). Third, it enriches the literature on innovative work behavior by integrating digital and psychological dimensions, demonstrating that digital engagement can motivate innovation in public sector contexts (Ali-Hassan et al., 2015; Bodhi et al., 2024).

The findings offer practical implications for public sector organizations. Employees' digital activities on social media can be viewed not only as communication practices but also as reflections of

digital engagement. Organizations can enhance digital engagement by improving the quality of digital work experiences, providing targeted training, facilitating structured idea-sharing forums, and optimizing interactive internal communication channels such as WhatsApp groups. Initiatives such as innovation festivals, supported by transparent recognition or reward mechanisms, can help sustain employee motivation, enhance collaboration, and cultivate an organizational culture that supports continuous innovation.

This study has several limitations that provide directions for future research. First, it focuses exclusively on two social media platforms, WhatsApp and Instagram, which may not fully represent employee behavior on other platforms with distinct features and user dynamics. Second, the research context is confined to a single regional public utility company Perumda, which may limit the generalizability of the findings to organizations with differing systems, cultures, or levels of digital literacy. Third, moderating variables such as digital literacy, perceived organizational support, and intrinsic motivation to share were not examined, even though these factors may shape the strength of the observed relationship. Future studies are encouraged to incorporate these variables, apply longitudinal research designs, and replicate the proposed model across diverse public sector and regional enterprise contexts to deepen understanding of how digital engagement supports sustainable digital transformation.

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