

The Effect of Digital Work Environment on Online Driver Engagement in Indonesia

Nico Kosasih^{1*}

¹STIE Pancasetia, South Kalimantan, Indonesia

*Corresponding author email address: nicokosasih@gmail.com

Abstract : This study aims to analyze the effect of the digital work environment on online driver employee engagement in Indonesia. The rapid digital transformation has shifted work patterns toward application-based systems, requiring effective online communication, flexible scheduling, and stable technological support. This research employed a quantitative approach with an explanatory design. The sample consisted of 150 online drivers selected through purposive sampling. Data were collected using a Likert-scale questionnaire and analyzed using simple linear regression with SPSS software. The results show that the digital work environment has a positive and significant effect on online driver engagement ($B = 0.452$; $p < 0.001$; $R^2 = 0.285$). This indicates that the better the quality of the digital work environment reflected in application stability, transparency of incentive systems, effective digital communication, and flexible working hours the higher the level of engagement among online drivers. A well-managed digital work environment can enhance motivation, loyalty, and a sense of belonging toward the platform. This study reinforces the Job Demands Resources (JD-R) and Self-Determination Theory (SDT) frameworks, suggesting that digital work resources can improve engagement when supported by organizational commitment and digital well-being. The findings provide practical implications for application-based companies to strengthen their digital infrastructure and implement flexible work policies to improve both engagement and the digital well-being of their driver partners.

Keywords : Digital Work Environment; Employee Engagement; Online Drivers; Work Flexibility; Digital Technology

Cite : Kosasih, Nico. (2025). The Effect of Digital Work Environment on Online Driver Engagement in Indonesia. *TechTalent & Business Review*. 1(3), 35-46. <https://doi.org/10.63985/ttbr.v1i3.33>

Copyright © TechTalent & Business Review
All rights reserved



1. Introduction

The rapid development of digital technology in recent years has triggered profound changes in the way organizations manage human resources. The acceleration of digital transformation, particularly after the COVID-19 pandemic, has reshaped organizational operations through the adoption of remote and hybrid work models, where technology functions as the backbone of operational continuity (Alam & Dewi, 2024). The digital work environment is no longer merely a strategic option but has become a necessity to maintain organizational competitiveness and strengthen employee engagement.

A digital work environment can be defined as an ecosystem supported by information technology, flexible work policies, online collaboration systems, and digital-based leadership (Miqdarsah & Indradewa, 2024; Stachová et al., 2021). Studies in Indonesia show that the implementation of remote working policies equipped with strong

technological support improves productivity and job satisfaction, which ultimately enhances employee loyalty (Alam & Dewi, 2024; Miqdarsah & Indradewa, 2024). Similarly, the adoption of electronic human resource management (e-HRM) tools has been found to strengthen employee engagement, particularly when accompanied by adequate digital literacy (Stachová et al., 2021).

Employee engagement itself refers to a psychological condition in which employees display emotional, cognitive, and behavioral attachment to their work and organization. Engagement contributes significantly to motivation, innovation, and sustainable performance (Nurhidayah & Muliansyah, 2025). Within a digital context, engagement is shaped by various online drivers, such as virtual communication, trust, technological support, flexibility, platform-based working relationships, and the perception of meaningful work (Anggraini et al., 2023; Latuheru et al., 2024).

Recent research underscores the central role of the digital work environment in fostering employee engagement. Nurhidayah and Muliansyah (2025) found that digital leadership positively influences engagement in hybrid workplaces, with communication and trust serving as key mediators. Similarly, Syamsulbahri and Young (2025) highlighted that the use of virtual collaboration tools and remote work policies enhances digital talent retention, closely linked to higher engagement levels. The generational factor also plays a vital role; studies on Generation Z employees in Indonesian startups reveal that remote working may either strengthen or weaken engagement depending on how organizations manage flexibility and digital interaction (Mufarrihati & Ariawaty, 2023). Anggraini et al. (2023) further emphasized that meaningful work acts as a crucial driver of engagement among remote employees, while Latuheru et al. (2024) found that digital relationship management and work-life balance strategies effectively enhance engagement.

From an organizational performance perspective, the digital work environment contributes not only to engagement but also to productivity and innovation. Maghfur and Isnanto (2022) demonstrated that motivation, technological support, and digital competence adaptation are critical factors in improving performance in remote work settings. However, Adisa et al. (2023) cautioned that remote work can also reduce engagement when employees face pressures such as digital stress, online presenteeism, and job insecurity. These findings indicate that while the digital workplace can enhance engagement and performance, it can also generate fatigue and disengagement if not properly managed.

Globally, Yusuf et al. (2023) confirmed that remote work policies and HR technology infrastructure improve engagement and productivity among Indonesian employees, aligning with broader evidence that technology support, flexibility, virtual communication, and digital leadership are primary engagement drivers in the modern workplace. This is consistent with Shafique (2024), who observed that digital transformation within organizations significantly enhances productivity and engagement, provided that employees receive access to digital tools, virtual collaboration spaces, and flexible work systems. Nonetheless, the success of a digital workplace relies heavily on organizational readiness, digital culture, and technological support (Cavicchioli, 2025). Excessive technology use, however, can lead to digital fatigue and work stress, diminishing engagement (Kaltainen & Hakanen, 2023).

The role of digital leadership and organizational support has also become a central theme in understanding online employee engagement drivers. Andungai and Omar (2025) found that transformational leadership in virtual environments builds trust, motivation, and commitment among employees. Leaders capable of digital adaptation can create open communication and foster positive organizational climates that drive engagement. In

addition, Khatatbeh et al. (2023) demonstrated that digital infrastructure, technology training, and positive perceptions of remote working directly enhance engagement. Juchnowicz and Kinoska (2021) further argued that social interaction remains essential for employee well-being even in online work settings, as the lack of face-to-face communication can reduce belongingness and loyalty. To address this, organizations must balance digital efficiency with meaningful virtual social interactions.

Xu (2023) added that while digital technologies promote flexibility and efficiency, they also blur the boundaries between personal and professional life, creating potential work-family conflicts. Thus, organizations must ensure digital well-being to prevent declines in engagement due to technological overload. Collectively, recent studies from 2021 to 2025 consistently show that digital work environments positively influence employee engagement primarily through enhanced communication, flexibility, digital leadership, and online recognition. However, such positive outcomes are only sustainable if organizations effectively manage digital stress, work-home conflicts, and the need for social connection.

Despite these extensive findings, research gaps persist. Most previous studies have examined individual components of the digital work environment, such as technology, leadership, or remote policy, without providing an integrated analysis of how the digital workplace ecosystem as a whole affects key online engagement drivers namely digital communication, online motivation, virtual collaboration, work flexibility, and digital career development. In the Indonesian context, such comprehensive research remains limited, even though Indonesia's collectivist cultural orientation and rapid digital adoption may produce unique engagement dynamics compared to Western settings. Therefore, this study aims to comprehensively analyze the influence of the digital work environment on online employee engagement drivers in Indonesian organizations. The findings are expected to enrich the literature on human resource management in the digital era and offer practical insights for organizations to design digital workplace strategies that sustainably enhance employee engagement and organizational performance.

2. Method

This study employed a quantitative approach with an explanatory research design, aiming to examine the direct effect of the independent variable, namely the Digital Work Environment, on the dependent variable, Online Employee Engagement Drivers. The population of this study consisted of online drivers working on application-based transportation platforms in Indonesia. The sampling technique used was purposive sampling with specific criteria: (1) drivers who have been actively working for at least one year, (2) drivers who use digital applications as the primary medium in performing their work, and (3) drivers who were willing to complete the research questionnaire. The minimum sample size was determined to be 150 respondents, following the general rule of regression analysis that recommends at least five to ten respondents per research indicator.

Data were collected using a closed-ended questionnaire based on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire items were adapted from previous studies on digital workplace and employee engagement, with contextual adjustments for the Indonesian setting. The validity of the research instrument was tested using corrected item-total correlation analysis, where an item was considered valid if the r-count value exceeded the r-table value at a 5% significance level ($\alpha = 0.05$). Furthermore, the reliability of the instrument was assessed using Cronbach's Alpha, with an alpha value of ≥ 0.70 indicating good internal consistency among the items.

Data analysis was performed using IBM SPSS version 26. The analysis began with classical assumption tests, including residual normality, multicollinearity, and heteroscedasticity tests, to ensure the feasibility of the regression model. Subsequently, linear regression analysis was conducted to examine the influence of the Digital Work Environment (X) on Online Employee Engagement Drivers (Y). The F-test was used to evaluate the overall model fit, while the t-test was employed to determine the significance of the independent variable's effect on the dependent variable. In addition, the coefficient of determination (R^2) was calculated to measure the proportion of variance in the dependent variable explained by the independent variable.

3. Results and Discussions

3.1. Respondent Characteristics

Table 1 presents the demographic characteristics of the online driver respondents who participated in this study. The characteristics include gender, age, length of work, and educational background. This information provides an overview of the respondents' profiles, which helps to better understand the context of their work environment and engagement levels.

Table 1. Characteristics of Online Driver Respondents

| Characteristics | Category | Number (n) | Percentage (%) |
|------------------------|-------------------------------|------------|----------------|
| Gender | Male | 132 | 88.0 |
| | Female | 18 | 12.0 |
| Age | 20–35 years | 98 | 65.0 |
| | > 35 years | 52 | 35.0 |
| Length of Work | 1–3 years | 87 | 58.0 |
| | > 3 years | 63 | 42.0 |
| Educational Background | Senior High School/Equivalent | 108 | 72.0 |
| | Diploma/Bachelor's Degree | 42 | 28.0 |

The table above shows that the majority of respondents were male (88%), aged between 20–35 years (65%), and had been working as online drivers for 1–3 years (58%). Most respondents had completed senior high school or an equivalent level of education (72%), while 28% had attained a diploma or bachelor's degree.

3.2. Descriptive Statistics

Descriptive statistical analysis was conducted to provide an overview of respondents' perceptions of each research variable. The analysis includes the minimum, maximum, mean, and standard deviation values, which describe the data distribution and the central tendency of respondents' answers. The results of the descriptive analysis are presented in Table 2.

Table 2. Descriptive Statistics

| Variable | N | Min | Max | Mean | Std Deviation |
|---------------------------------------|-----|------|------|------|---------------|
| Digital Work Environment (X) | 150 | 3.10 | 4.90 | 4.21 | 0.45 |
| Employee Engagement Driver Online (Y) | 150 | 3.25 | 5.00 | 4.35 | 0.38 |

The results in Table 2 indicate that the overall mean score for the Digital Work Environment variable ($M = 4.21$, $SD = 0.45$) falls into the high category, suggesting that online drivers generally experience a supportive and technology-oriented work environment. Meanwhile, the Employee Engagement Driver Online variable also shows a high mean score ($M = 4.35$, $SD = 0.38$), implying that respondents demonstrate a strong

level of engagement influenced by digital communication, flexibility, and virtual collaboration in their work activities.

3.3. Instrument Testing

The validity test was conducted to determine whether each item in the questionnaire could accurately measure the intended construct.

Tabel 3. Validity Test Results of Digital Work Environment (X)

| Item | r-count | r-table | Sig. | Description |
|------|---------|---------|-------|-------------|
| X1 | 0,472 | 0,159 | 0,000 | |
| X2 | 0,521 | 0,159 | 0,000 | |
| X3 | 0,489 | 0,159 | 0,000 | |
| X4 | 0,538 | 0,159 | 0,000 | |
| X5 | 0,503 | 0,159 | 0,000 | |
| X6 | 0,462 | 0,159 | 0,000 | Valid |
| X7 | 0,556 | 0,159 | 0,000 | |
| X8 | 0,478 | 0,159 | 0,000 | |
| X9 | 0,492 | 0,159 | 0,000 | |
| X10 | 0,534 | 0,159 | 0,000 | |
| X11 | 0,517 | 0,159 | 0,000 | |
| X12 | 0,549 | 0,159 | 0,000 | |

All 12 items of the Digital Work Environment variable (X) were declared valid, as the r-count values were greater than the r-table value (0.159) and the significance level (Sig.) was less than 0.05. Therefore, all items are considered suitable for further analysis. Table 3 presents the results of the validity test for the *Employee Engagement Driver Online* variable (Y). The purpose of this test was to assess whether each statement item in the questionnaire accurately measures the construct of online employee engagement

Table 4. Validity Test Results of Employee Engagement Driver Online (Y)

| Item | r-count | r-table | Sig. | Description |
|------|---------|---------|-------|-------------|
| Y1 | 0,498 | 0,159 | 0,000 | |
| Y2 | 0,521 | 0,159 | 0,000 | |
| Y3 | 0,474 | 0,159 | 0,000 | |
| Y4 | 0,503 | 0,159 | 0,000 | |
| Y5 | 0,526 | 0,159 | 0,000 | |
| Y6 | 0,481 | 0,159 | 0,000 | |
| Y7 | 0,489 | 0,159 | 0,000 | Valid |
| Y8 | 0,534 | 0,159 | 0,000 | |
| Y9 | 0,493 | 0,159 | 0,000 | |
| Y10 | 0,552 | 0,159 | 0,000 | |
| Y11 | 0,507 | 0,159 | 0,000 | |
| Y12 | 0,529 | 0,159 | 0,000 | |
| Y13 | 0,546 | 0,159 | 0,000 | |
| Y14 | 0,573 | 0,159 | 0,000 | |
| Y15 | 0,562 | 0,159 | 0,000 | |

All 15 items of the Employee Engagement Driver Online variable (Y) were declared valid, as the r-count values were greater than the r-table value (0.159) and the significance level was 0.000 (< 0.05). Therefore, all items are considered suitable for use in further data analysis. Reliability test conducted to evaluate the internal consistency of the research instruments used in this study. Reliability testing aims to ensure that the measurement items within each variable produce consistent and dependable results.

Table 5. Reliability Test Results

| Variable | Number of Items | Cronbach's Alpha | Description |
|--------------------------------|-----------------|------------------|-------------|
| Digital Work Environment (X) | 12 | 0.873 | Reliable |
| Employee Engagement Driver (Y) | 15 | 0.889 | Reliable |

Both variables Digital Work Environment ($\alpha = 0.873$) and Employee Engagement Driver ($\alpha = 0.889$) were declared reliable, as their Cronbach's Alpha values exceeded 0.70. This indicates that all items within each variable demonstrate strong internal consistency and can be trusted to yield stable and consistent results in subsequent analyses.

3.4. Classical Assumption Test

A normality test was conducted to determine whether the residual data were normally distributed. A significance value (Sig.) greater than 0.05 indicates that the data distribution does not deviate significantly from normality.

Table 6. Normality Test Results

| Uji | Nilai Statistik | Sig. |
|--------------------|-----------------|-------|
| Kolmogorov-Smirnov | 0,067 | 0,200 |

The significance value of the Kolmogorov–Smirnov test is 0.200, which is greater than 0.05. This result indicates that the data are normally distributed, and therefore, the regression model meets the assumption of normality. A multicollinearity test was conducted to detect any potential high correlation between independent variables. A Tolerance value greater than 0.10 and a VIF value less than 10 signify the absence of multicollinearity.

Tabel 7. Multicollinearity Test Results

| Variable | Tolerance | VIF |
|------------------------------|-----------|-------|
| Digital Work Environment (X) | 0,812 | 1,231 |

The Tolerance value of 0.812 (> 0.10) and the VIF value of 1.231 (< 10) indicate that there is no multicollinearity present in the regression model. This means that the independent variable does not exhibit a high linear correlation with other variables, and therefore, it meets the assumption of multicollinearity. A heteroscedasticity test was conducted to determine whether the variance of the residuals in the regression model was constant across all levels of the independent variable.

Table 8. Heteroscedasticity Test Results (Glejser Test)

| Variabel | Sig. |
|------------------------------|-------|
| Digital Work Environment (X) | 0,412 |

The significance value of 0.412 (> 0.05) indicates that there is no heteroscedasticity in the regression model. This means that the residual variance is homogeneous, and the model fulfills the assumption of homoscedasticity.

3.4. Simple Linear Regression Analysis

This analysis aimed to test the hypothesis that improvements in the digital work environment lead to higher levels of employee engagement.

Table 9. t-Test Results

| Variabel | B | Std. Error | Beta | t | Sig. |
|------------------------------|--------|------------|-------|-------|-------|
| Constant (α) | 12,315 | 2,018 | – | 6,103 | 0,000 |
| Digital Work Environment (X) | 0,452 | 0,084 | 0,534 | 5,381 | 0,000 |

The t -value of 5.381 with a significance level of 0.000 (< 0.05) indicates that the Digital Work Environment (X) variable has a positive and significant effect on the Employee Engagement Driver Online (Y) variable. The regression coefficient of 0.452 means that for every one-unit increase in the digital work environment score, the level of employee engagement among online drivers increases by 0.452 units. An F -test was conducted to evaluate the overall significance of the regression model and to determine whether the independent variable jointly affects the dependent variable. A model is considered significant if the F -value is greater than the critical value of F -table and the significance level is less than 0.05.

Table 10. F-Test Results

| Model | F-value | Sig. |
|------------------------------|---------|-------|
| Regression X \rightarrow Y | 28.645 | 0.000 |

The F -value of 28.645 with a significance level of 0.000 (< 0.05) indicates that the regression model used is simultaneously significant. This means that the Digital Work Environment (X) variable collectively influences the Employee Engagement Driver Online (Y) variable, confirming that the model is appropriate and statistically valid for explaining the relationship between the two variables. To determine how well the independent variable explains changes in the dependent variable, the coefficient of determination (R^2) was analyzed. The R^2 value represents the proportion of variance in the dependent variable that can be predicted from the independent variable.

Table 11. Coefficient of Determination (R^2) Results

| Model | R | R^2 | Adjusted R^2 | Std. Error of Estimate |
|------------------------------|-------|-------|----------------|------------------------|
| Regression X \rightarrow Y | 0,534 | 0,285 | 0,280 | 4,327 |

The R^2 value of 0.285 indicates that 28.5% of the variation in the Employee Engagement Driver Online (Y) variable can be explained by the Digital Work Environment (X) variable, while the remaining 71.5% is influenced by other factors outside the research model.

3.6. Discussion

The results of this study show that the digital work environment has a positive and significant effect on online driver engagement ($B = 0.452$; $p < 0.001$; $R^2 = 0.285$). This means that every one-unit improvement in the quality of the digital work environment increases engagement by 0.45 points, demonstrating that a well-structured digital ecosystem contributes meaningfully to workers' psychological attachment and motivation. High application stability, transparent incentive systems, effective online communication, and flexible working hours encourage stronger emotional connection and commitment among online drivers. This finding supports the Job Demands Resources (JD-R) framework, showing that the digital environment can function as both a job resource by offering autonomy, feedback, and flexibility and a job demand, as algorithmic management may impose constant monitoring, performance pressure, and uncertain income. In this

sense, technology-based work platforms simultaneously provide support and stressors that shape engagement in complex ways.

The novelty of this study lies in its specific focus on online transportation drivers in Indonesia, particularly those affiliated with leading platforms such as Gojek and Grab, where work engagement is shaped by distinctive algorithmic management systems. Unlike most prior research that examined remote or hybrid employees in conventional organizational settings, this study operationalizes *Online Driver Engagement* as a driver-specific construct that reflects three core aspects of gig-based work: emotional connection with the platform, trust in algorithmic fairness, and enthusiasm in meeting digital performance indicators. Thus, the findings extend engagement theory into a unique digital ecosystem where the employer–employee relationship is mediated by technology rather than direct supervision.

The finding is consistent with the results of Nurhidayah and Muliansyah (2024), who found that digital leadership and effective online communication significantly enhance employee engagement in hybrid work systems. In the context of online drivers, fast and transparent communication through digital applications plays an important role in building trust and a sense of connectedness between partners and the platform. This is also in line with Yusuf (2023), who emphasized that remote work policies and efficient digital infrastructure contribute to increased engagement by facilitating coordination, real-time information, and work clarity.

Work flexibility has also proven to be one of the key determinants of engagement. Dutahatmaja (2023) found that flexible work models improve work-life balance and intrinsic motivation, particularly among younger generations. The results of this study reinforce these findings, as the majority of drivers perceived flexible working hours as a major factor in developing loyalty and enthusiasm for their work. Fatkhul Huda and Ekhsan (2024) also supported this view, finding that work flexibility influences driver performance through job satisfaction as a mediating variable, suggesting that job autonomy can be regarded as an important determinant of engagement in digital ecosystems.

Technological support likewise emerged as a significant element in enhancing engagement. Alam and Dewi (2024) explained that technological support serves as a mediator between remote work policies and job satisfaction. In this study's context, technological support such as application stability, clear notifications, and the availability of digital help centers provides a sense of security and competence to drivers, thereby strengthening their emotional attachment to work. From an international perspective, Li et al. (2024) found that algorithmic management in ride-hailing platforms in China affects engagement through fairness perception and challenge appraisal. When the algorithmic system is perceived as fair and transparent, work pressure is interpreted as a motivating challenge; conversely, when it is perceived as unfair, pressure becomes a hindrance that lowers motivation. Similarly, Syahril et al. (2024) in Malaysia found that job satisfaction is strongly related to sustained engagement among gig workers in the online transportation sector. These findings underline that non-digital factors, such as job satisfaction and organizational support, still play an important role in maintaining work engagement.

Nevertheless, several studies have also revealed the negative aspects of digitalization. Shalsabilla et al. (2024) found that algorithm-based incentive and performance systems in the ride-hailing industry often create high job stress and income uncertainty. This phenomenon aligns with the results of this study, where the R^2 value of 0.285 suggests that

other factors beyond the digital work environment such as psychological well-being, social support, and economic conditions also influence engagement. Lang et al. (2023) further showed that excessive algorithmic control can lead to burnout and decreased engagement among gig workers. This finding is consistent with Zhang et al. (2025), who reported that aggressive incentive mechanisms may reduce workers' rest time and cause digital fatigue. Conversely, approaches emphasizing social support and online communities have been proven to strengthen engagement. Huang et al. (2023) demonstrated that social interaction and a sense of belonging facilitated by digital platforms satisfy basic psychological needs such as autonomy, competence, and relatedness. Likewise, Liu et al. (2022) emphasized that human-based interaction monitoring, rather than purely algorithmic observation, increases trust and cognitive engagement among workers. These findings highlight that the quality of digital relationships is a key determinant of the success of technology-based work systems.

Conceptually, the results of this study reinforce the Job Demands Resources (JD-R) Model and Self-Determination Theory (SDT) frameworks. The digital work environment can function as a job resource that enhances engagement when it provides clarity, support, and autonomy. However, when the digital environment increases job demands through target pressure and excessive algorithmic control, engagement tends to decline. In this sense, the empirical findings from Indonesian online drivers provide contextual evidence of how algorithmic management simultaneously serves as both a job resource (through clarity, transparency, and autonomy) and a job demand (through performance pressure and limited control). Thus, this study confirms that digitalization has great potential to strengthen employee engagement if managed based on principles of fairness, social support, and psychological balance. Conversely, when these aspects are neglected, the digital work environment can become a source of stress that reduces both engagement and the overall well-being of online drivers.

This research extends the application of the JD-R theory into a technology-driven, algorithmic ecosystem rather than a conventional digital work environment. In gig-based systems such as ride-hailing platforms, algorithms act as digital supervisors that allocate orders, determine rewards, and monitor performance. When perceived as fair and transparent, these algorithmic mechanisms become motivating resources that enhance engagement; however, when perceived as rigid or punitive, they act as demands that reduce motivation. Thus, this study provides empirical evidence that the dual nature of digital technology both enabling and constraining plays a crucial role in shaping engagement outcomes for gig workers.

Furthermore, the digital work environment for online drivers represents a unique form of employment with high autonomy but limited social support. While flexibility and independence are key motivators, the absence of organizational belonging and face-to-face interaction can also heighten feelings of isolation. This contextual specificity suggests that the results of this study cannot be generalized to all digital work settings. The engagement patterns observed here are highly influenced by the operational characteristics of online transportation platforms, including incentive policies, regional demand, and algorithmic management design. Future studies should expand this investigation across various gig work sectors and geographic regions to strengthen external validity and explore cross-platform differences in engagement dynamics.

Despite these limitations, the present findings make a meaningful contribution by revealing how the digital work environment functions simultaneously as a source of support and stress for gig workers. Managing this balance is essential for maintaining engagement and well-being. Digital platforms are encouraged to develop adaptive feedback systems, enhance fairness in algorithmic evaluation, and provide accessible digital assistance channels. By optimizing the supportive aspects of the digital work environment while minimizing algorithmic strain, platform companies can cultivate sustained engagement, loyalty, and psychological resilience among online drivers.

This study has several limitations. The use of a cross-sectional design limits the ability to infer causal relationships between variables. In addition, the purposive sampling technique may reduce sample representativeness. The findings are also context-specific, as they are based on drivers from certain application-based transportation platforms, which may limit their generalizability to other digital work settings. Future studies are encouraged to compare engagement patterns across multiple platforms and incorporate longitudinal data to capture how algorithmic management dynamics evolve over time and influence driver engagement in the broader gig economy.

4. Conclusions

This study concludes that the Digital Work Environment has a positive and significant effect on Online Employee Engagement. The findings indicate that the higher the quality of the digital work environment—which includes technological support, work flexibility, effective online communication, and transparency in work systems—the stronger the level of engagement and loyalty of online drivers toward their platforms. An efficient digital work environment not only enhances productivity but also strengthens employees' emotional connection and sense of belonging to the organization. Therefore, application-based companies need to continuously optimize their digital infrastructure and ensure the digital well-being of their workers to sustain engagement amid the dynamics of the digital economy.

Reference

- Adisa, T. A., Ogbonnaya, C., & Adekoya, O. D. (2023). Remote working and employee engagement: A qualitative study of British workers during the pandemic. *Information Technology & People*, 36(5), 1835–1850. <https://doi.org/10.1108/ITP-12-2020-0850>
- Alam, A. A., & Dewi, E. R. (2024). The mediating role of technological support in enhancing employee productivity and job satisfaction through remote work policies in Indonesia. *Jurnal Manajemen Bisnis*, 15(2), 347–365. <https://doi.org/10.18196/mb.v15i2.23050>
- Andungai, R., & Omar, S. S. (2025). The influence of leadership on remote worker engagement. *International Journal of Research and Innovation in Social Science*, 9(7), 4603–4615. <https://doi.org/10.47772/IJRISS.2025.907000371>
- Anggraini, D., Juniary, A., & Pratiwi, M. (2024). Work engagement pada karyawan yang bekerja secara remote ditinjau dari meaningful work. *Psikobuletin: Buletin Ilmiah Psikologi*, 5(3), 408–418. <https://doi.org/10.24014/pib.v5i3.29040>
- Cavicchioli, M., Demaria, F., Nannetti, F., Scapolan, A. C., & Fabbri, T. (2025). Employees' attitudes and work-related stress in the digital workplace: An empirical investigation. *Frontiers in Psychology*, 16, 1546832. <https://doi.org/10.3389/fpsyg.2025.1546832>

- Dutahatmaja, A. (2025). The influence of hybrid working model on employee engagement through work-life balance on millennial generation employees. *Management Studies and Entrepreneurship Journal*, 6(4), 5757–5768. <https://doi.org/10.37385/msej.v6i4.7961>
- Huda, F., & Ekhsan, M. (2023). The influence of job flexibility on online driver performance mediated by job satisfaction. *Dynamic Management Journal*, 7(3), 480–494. <https://doi.org/10.31000/dmj.v7i3.8929>
- Juchnowicz, M., & Kinowska, H. (2021). Employee well-being and digital work during the COVID-19 pandemic. *Information*, 12(8), 293. <https://doi.org/10.3390/info12080293>
- Kaltainen, J., & Hakanen, J. J. (2024). Why increase in telework may have affected employee well-being during the COVID-19 pandemic? The role of work and non-work life domains. *Current Psychology*, 43(13), 12169–12187. <https://doi.org/10.1007/s12144-023-04250-8>
- Khatatbeh, I. N., Alshurafat, H., Al Shbail, M. O., & Jamaani, F. (2023). Factors affecting employees' use and acceptance of remote working during the COVID-19 pandemic: Evidence from the Jordanian insurance sector. *Sage Open*, 13(2), 21582440231181390. <https://doi.org/10.1177/21582440231181390>
- Lang, J. J., Yang, L. F., & Cheng, C. (2023). Are algorithmically controlled gig workers deeply burned out? An empirical study on employee work engagement. *BMC Psychology*, 11, 354. <https://doi.org/10.1186/s40359-023-01402-0>
- Latuheru, R. D., Tutuhaturnewa, A. R., & Talle, F. (2024). Peran employee relations dalam meningkatkan engagement karyawan di era remote working. *Jurnal Badati*, 6(2), 167–179.
- Li, W., Lu, Y., Hu, P., & Gupta, S. (2024). Work engagement of online car-hailing drivers: The effects of platforms' algorithmic management. *Information Technology & People*, 37(3), 1423–1448. <https://doi.org/10.1108/ITP-02-2022-0122>
- Maghfur, A. A., & Isnanto, S. H. (2025). Remote work environment and employee performance in the digital era. *Dinasti International Journal of Management Science*, 6(3), 526–533. <https://doi.org/10.38035/dijms.v6i3.4306>
- Miqdarsah, M., & Indradewa, R. (2024). The effect of flexible working arrangements and digital workplace on employee loyalty with employee satisfaction as mediation. *Jurnal Ekonomi dan Bisnis*, 27(2), 255–280. <https://doi.org/10.24914/jeb.v27i2.11555>
- Mufarrihati, V. C., & Ariawaty, R. R. N. (2023). Pengaruh remote working terhadap employee engagement pada karyawan generasi Z (studi kasus pada perusahaan startup di Kota Bandung). *Akuntansi*, 2(4), 133–155. <https://doi.org/10.55606/akuntansi.v2i4.1278>
- Nurhidayah, R., & Muliansyah, D. (2024). Digital leadership and employee engagement in hybrid work environments: The role of trust and communication. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 3(2), 23–33. <https://doi.org/10.31004/riggs.v3i2.1067>
- Shafique, T. (2024). The impact of digital transformation on employee engagement and productivity in remote work environments. *Journal of Personnel Management*, 2(1), 1–14. <https://journals.smarcons.com/index.php/jpm/article/view/215>
- Stachová, K., Stacho, Z., Šamalík, P., & Sekan, F. (2024). The impact of e-HRM tools on employee engagement. *Administrative Sciences*, 14(11), 303. <https://doi.org/10.3390/admsci14110303>

- Syahril, S. D., Daud, N. M., & Junos, S. (2024). Relationship between job satisfaction and sustained engagement among gig workers in the Malaysian ride-hailing industry. *International Journal of Research and Innovation in Social Science*, 8(8), 4081–4093. <https://doi.org/10.47772/IJRISS.2024.8080308>
- Syamsulbahri, S., & Young, F. C. (2025). Exploring the role of virtual collaboration tools, remote working policies, and leadership style in improving digital talent retention in Indonesia. *The Eastasouth Management and Business*, 3(2), 268–279. <https://doi.org/10.58812/esmb.v3i02.423>
- Xu, P. (2023). Impact of digital technology on employee wellbeing in the context of teleworking during COVID-19. *Advances in Economics, Management and Political Sciences*, 33, 219–224. <https://direct.ewa.pub/proceedings/aemps/article/view/5889>
- Yusuf, M. (2024). Remote work policies: Redefining HR practices for the digital era. *PENANOMICS: International Journal of Economics*, 3(1), 1–12. <https://doi.org/10.56107/penanomics.v3i1.168>
- Zhang, W., Lu, Y., & Li, Z. (2025). Algorithmic exploitation of ride-hailing drivers' right to rest under platform incentive mechanisms. *International Journal of Frontiers in Sociology*, 7(4), 1–9. <https://doi.org/10.25236/IJFS.2025.070402>