EMPLOYEE UNDERSTANDING OF THE DIGITALIZATION ERA AND ITS IMPACT ON WORK ENGAGEMENT: A QUALITATIVE STUDY AT LPD SEMSEMAN

Ni Putu Suciyawati

Economics Faculty, Ganesha University of Education, Indonesia
(niputu.suciyawati@undiksha.ac.id)

Made Pramana Putra

Economics Faculty, Ganesha University of Education, Indonesia
(m.pramana.putra@undiksha.ac.id)

Putu Ananda Devi Nugraha

Economics Faculty, Ganesha University of Education, Indonesia
(putu.ananda.devi@undiksha.ac.id)

ABSTRACT

Digitalization has significantly changed various sectors, including rural financial institutions like LPD Semseman. This study explores employees' understanding of digitalization and its impact on work engagement at LPD Semseman. Using a descriptive qualitative approach with a case study design, ten employees were purposively selected based on their direct involvement with digital technology and employment tenure of over one year. Data were collected through in-depth interviews, observation, and document review, and then analyzed thematically. The results show that LPD Semseman employees generally recognize the importance of digitalization in supporting daily operations and services. Adopting digital tools like the LPD Mobile application and QRIS payment system has streamlined work processes, improved efficiency, and reduced manual workload. While initial adaptation was challenging, especially for senior employees, regular training provided by the organization has successfully enhanced digital literacy for all staff. Younger, more technologically adept employees have been key in assisting their senior colleagues during the transition. Digitalization has also increased work engagement, reflected in higher motivation, a stronger sense of belonging, and improved job satisfaction. Supporting factors include a collaborative work culture, ongoing training, and organizational recognition. The main obstacles encountered at the outset were limited digital literacy and resistance to change, addressed through organizational support and intensive training. This study highlights the importance of developing digital literacy and maintaining organizational support to enhance employee engagement in the digital era.

Keywords: Digitalization, Digital Literacy, Work Engagement

INTRODUCTION

The era of digitalization has become a global phenomenon that has brought profound changes across various sectors, including the world of work. Digitalization transforms how organizations operate, communication patterns, and interactions among employees, while requiring employees to possess adequate digital literacy skills to adapt and remain productive. In this context, employees' understanding of the digital era becomes crucial as it directly affects work engagement, a primary indicator of employee productivity and loyalty.

Digital literacy is an essential competency for Generation Z employees, who are often called "digital natives" because they have grown up with digital technology from an early age Alfyoni and Rostiana, 2025). Their research shows that digital literacy contributes 74.7% to the work engagement of Generation Z employees, which is much more dominant than innovative work behavior, which contributes 63.6%. Simultaneously, these two factors influence work engagement by 78.5%, emphasizing the importance of digital literacy in boosting employee motivation and commitment to the organization.

Furthermore, digital literacy is not merely the ability to use technology, but also the ability to analyze, evaluate, and create digital content responsibly. Digital literacy has become a key skill Indonesian workers must possess in the industry 4.0 era, where technologies such as artificial intelligence (AI), big data, and automation have become integral parts of business processes Beeza (2025). Digitally literate employees can utilize technology for problem-solving, innovation, and productivity improvement, thus making significant contributions to economic growth and company competitiveness.

Moreover, digital literacy also plays a role in enhancing job readiness. Research conducted among students of the Faculty of Economics and Business at Universitas Negeri Padang shows that digital literacy and career planning positively and significantly impact prospective workers' job readiness. This indicates that understanding and mastering digital technology are important assets for entering an increasingly competitive and dynamic workforce.

In an increasingly digitalized work environment, work engagement becomes a psychological aspect highly influenced by employees' ability to master technology. Work engagement is a psychological condition in which employees feel involved, motivated, and committed Noe (2011). Employees with high digital literacy tend to be more confident and able to innovate in their duties, thereby increasing their work engagement.

However, the challenges in developing digital literacy cannot be overlooked. The gap in technology access and lack of awareness about the importance of digital literacy remain major obstacles, especially among students and young workers Hasan Ubaidillah (2024). Therefore, digital literacy must be taught and developed continuously so that the workforce can quickly adapt to technological changes and job demands in the digital era.

In the context of LPD Semseman, a rural financial institution undergoing digital transformation, employees' understanding of the digital era and its impact on work engagement is highly relevant and should be examined in depth. This qualitative study will explore how employees understand digitalization, how their digital literacy and innovative behavior affect work engagement, and how the organization can support increased engagement amid digital changes.

The research problems in this study focus on several key aspects related to the understanding and experiences of LPD Semseman employees regarding the digitalization era. This research aims to determine how LPD Semseman employees perceive the digitalization era and their experiences and perceptions of the changes brought about by digitalization in the work environment. Additionally, this study seeks to analyze how digitalization affects work engagement among employees at LPD Semseman. Furthermore, this research aims to identify the factors that support or hinder employee work engagement in the context of digitalization at LPD Semseman.

In line with the problem formulation, this study aims to gain an in-depth understanding of LPD Semseman employees' perceptions of the digitalization era. This research also aims to explore the experiences and perceptions of employees regarding the changes brought about by digitalization in LPD Semseman's work environment. In addition, the study seeks to analyze the impact of digitalization on the level of work engagement among employees at LPD Semseman and identify the factors that support or hinder employee work engagement in the context of digitalization at LPD Semseman. Thus, the results of this research are expected to provide a comprehensive picture of the dynamics of employee adaptation to digitalization and its implications for work engagement in the LPD Semseman environment.

LITERATURE REVIEW

The digital era has fundamentally changed the way organizations and employees operate. Digitalization increases operational efficiency and requires employees to possess adequate digital skills to adapt to rapid technological changes (Yusuf et al., 2022). Other studies emphasize that digitalization brings challenges such as digital stress, which can affect employee well-being and work engagement if not managed properly. Therefore, employees' understanding of digitalization becomes key to facing these changes.

Digital literacy is an important capability that influences how employees accept and utilize new technology. Research by (Yusuf et al. 2022) shows that digital skills significantly influence employee engagement, meaning that the better employees' digital skills, the higher their engagement at work. This is in line with the findings of (Nguyen & Lee 2020), who emphasize the role of digital skills in driving employee engagement.

Work engagement is a positive psychological condition consisting of three main dimensions: vigor (energy and enthusiasm for work), dedication (commitment and pride in work), and absorption (full involvement in work). Schaufeli and Bakker (2004) developed the Utrecht Work Engagement Scale (UWES) as the main instrument for measuring work engagement. Research shows that vigor is the most influential dimension in increasing work productivity in the digital era. In the increasingly common context of hybrid work in the digital era, transformational leadership has proven to be highly influential in increasing work engagement. Research by Rahma Tiara and Lisa Widawati (2023) found that transformational leadership contributes significantly, by 57.5%, to the work engagement of employees working in a hybrid setting in Jakarta. Leadership that can provide inspiration, motivation, intellectual stimulation, and individual attention can significantly enhance employee engagement (Bass & Avolio, 1994).

Digitalization can increase work engagement by developing digital skills and organizational support. Research by Yusuf et al. (2022) reveals that digital skills directly affect employee engagement and

support organizational innovation through effective innovation management. However, if digitalization is not managed properly, it can cause digital stress, which reduces work engagement. In addition to digital skills and leadership, Green Human Resource Management (GHRM) practices have also been proven to support employee engagement in the digital era. The study by Yusuf et al. (2022) shows that GHRM, which integrates environmentally friendly practices with developing digital skills, can increase employee engagement and innovation within organizations.

METHOD, DATA, AND ANALYSIS

The research method used in this study is a descriptive qualitative approach with a case study design to provide an in-depth overview of the phenomena occurring at LPD Semseman. The main focus of the research is to understand the perceptions, experiences, and interaction dynamics of employees related to their understanding of digitalization and work engagement. The research data were obtained from ten LPD Semseman employees selected using purposive sampling, with the criteria of having worked for more than one year and being directly involved in using digital technology such as digital transaction systems and financial applications. Data collection was conducted through in-depth interviews, direct observation of daily work activities, and document studies of internal organizational documents related to digitalization training and company policies.

Data analysis was carried out thematically through several stages. First, all interview and observation results were transcribed verbatim, followed by data reduction to select data relevant to the research focus. The reduced data were then categorized and grouped based on the main emerging themes, such as understanding digitalization, adaptation experiences, the impact of digitalization on work engagement, and supporting and inhibiting factors of work engagement. Subsequently, each theme was interpreted by relating it to work engagement theory (as proposed by Alfyoni & Rostiana, 2025) and other relevant literature to identify relationship patterns between themes. Data validity was maintained through source triangulation, by comparing the results of interviews, observations, and documents, as well as member checking, which involved verifying the interpretation of data with the research participants. With this method, the study is expected to provide a comprehensive and in-depth picture of how LPD Semseman employees understand and respond to the digitalization era and the factors influencing their work engagement amid digital change.

RESULT AND DISCUSSION

Researchers utilized observation, document review, and in-depth interviews to collect and present data and findings from the field. The results are described according to the research questions as follows:

How do LPD Semseman employees understand the era of digitalization?

In-depth interviews with Mr. Wayan Reda, Head of the Supervisory Board of LPD Sidemen, revealed that LPD Sidemen is still adapting to the digital era. However, the digitalization process began as early as 2007, starting with the introduction of computers and, more recently, the implementation of digital-based services. Mr. Reda explained, "In general, LPD Sidemen is still adapting to the era of digitalization, but in fact, this process has been ongoing since 2007, starting from the introduction of computers to the current digitalization in service delivery. LPD Sidemen has been trained on online-based financial systems, such as LPD Mobile and QRIS, so we are ready to embrace the development of this digital era." He added,

"At first, digitalization was troublesome- even I did not understand how to use it or what it was for. However, after several training sessions, it turned out to be very easy and even addictive to use." These statements indicate that while initial adaptation was challenging, continuous training has significantly improved employees' digital literacy and readiness for digital transformation.

Based on the data obtained, it can be concluded that employees at LPD Semseman are still deepening their knowledge and learning about digitalization. Nevertheless, LPD Semseman has already complied with all mandatory requirements for LPDs in the digital era, such as implementing digital-based services like LPD Mobile and QRIS payment systems. These findings confirm that LPD Semseman employees have a sufficient understanding of the digital era when carrying out their daily tasks. This is in line with the opinion of Sugiarto & Farid (2023), who state that the use of QRIS and mobile applications is not only an indicator of technological advancement within organizations but also evidence that employees possess the necessary digital readiness and competence to adapt and contribute optimally in the digital era.

What are the experiences and perceptions of LPD Semseman employees regarding changes brought about by digitalization in their work environment?

Based on in-depth interviews with Mrs. Made Sulastri, Head of the Cashier Section, it was found that LPD Semseman employees were well-received by the development of digitalization. However, when digitalization was first introduced, older employees found it difficult to adapt to digital-based services. In comparison, younger employees adapted more easily and considered their work more manageable. Over time, LPD Semseman facilitated all employees with regular training on digital-based services. Mrs. Sulastri stated, "Now, all employees have mastered online services, making our work easier." This finding highlights the importance of ongoing training and organizational support in ensuring all employees can adapt and benefit from digital transformation, regardless of age.

The findings indicate that millennial or younger employees tend to more easily accept changes and developments in digitalization, as they are accustomed to using digital technology daily. On the other hand, older employees found it much more difficult to adapt to digitalization, primarily due to their lack of prior exposure to such technologies. Over time, LPD Semseman facilitated all employees with regular training to learn digital-based services. This training has made employees understand and find it easier to perform their jobs using digital systems. This is consistent with Sri Larasati (2018), who states that training is a short-term, structured, and systematic educational process to enhance employee competence, which is crucial in facing technological developments. Furthermore, Eka Sumadhinata and Murtisari (2017) emphasize that digital training significantly increases work engagement.

How does digitalization affect work engagement among LPD Semseman employees?

According to in-depth interviews with Mrs. Nyoman Ayu, a staff member, digitalization has made daily tasks much more efficient. She stated, "Digitalization makes it much easier for employees to carry out daily tasks; it is more efficient. Previously, staff in the cashier section often had to work overtime for several days, but now everything is recorded by the system, so the work is completed quickly. This may motivate and engage employees more with their work because we feel helped and happy." Similarly, Mr. Cita, another staff member, explained, "Before digitalization, my colleagues and I often worked overtime and even slept in the office to finish the work. However, now, everything is easier with the LPD Mobile application and QRIS for financial transactions. There is no need to count money manually or record

everything by hand; all the evidence is there." These testimonies illustrate that digitalization increases efficiency and enhances employee motivation and work engagement by reducing workload and stress.

The data show that digitalization has greatly facilitated employees' daily work. Before digitalization, employees had to work overtime to complete bookkeeping, repeatedly check cash balances, and perform other tasks manually. With digitalization, the system accurately records all tasks and data, making daily work much easier for employees. This increased efficiency has increased motivation and job satisfaction, making employees feel more engaged and connected. This finding aligns with the study of Sulistianingtiyas and Djastuti (2022), which found that workplace digitalization positively and significantly affects employee performance, mediated by work engagement. Additionally, Hidayah and Wardoyo (2023) assert that digital culture positively and significantly influences work engagement.

What factors support or hinder work engagement in the context of digitalization at LPD Semseman?

Interviews with Mr. Gobeng, a staff member, revealed several supporting and inhibiting factors. He noted, "The positive or supporting factor is that we are like a family here, so if there are any problems, we always help each other. On the other hand, our superiors regularly provide training, making it much easier to learn digital-based services. Previously, the main obstacle was the lack of training, making it difficult to learn independently, but now, after being trained, it has become routine." In addition, Mrs. Sita, another staff member, stated, "Currently, there are no obstacles because if there are any problems, they are resolved quickly. The supporting factors are many: first, some employees are young and tech-savvy, so they can teach the older ones to adapt to digital services; second, every year on LPD Semseman's anniversary, appreciation is given to employees who perform well, making us feel more attached to our work here."

These findings demonstrate that a collaborative work culture, regular training, and organizational appreciation support work engagement. Meanwhile, the initial lack of training and digital literacy posed significant challenges, which have been largely overcome through organizational support and peer assistance. This analysis shows that LPD Semseman's journey toward digitalization is characterized by a learning process supported by training, generational collaboration, and a strong organizational culture, all of which contribute to improved digital literacy and employee work engagement.

The analysis reveals several positive factors: (1) a supportive work environment, as evidenced by employees helping each other when problems arise; (2) adequate digital literacy, with younger, tech-savvy employees assisting older colleagues in learning to use technology; and (3) motivational rewards, such as annual recognition for employees who have performed well. The only significant barrier identified was the initial difficulty adapting to the digital era due to insufficient training. This is consistent with research by Muchtadin (2023), which found that a positive work environment significantly influences work engagement. Furthermore, other experts (Anitha, 2014; Putra et al., 2017) highlight that providing appropriate rewards or recognition is an important strategy for increasing work engagement.

In summary, the findings demonstrate that organizational readiness, continuous training, a collaborative work culture, and recognition of employee achievements have successfully supported digitalization at LPD Semseman. These factors facilitate adaptation to technological changes and foster higher employee work engagement, motivation, and job satisfaction.

CONCLUSION

LPD Sidemen employees have a fairly good understanding of the digital era. They recognize that digitalization has significantly changed their work, from information technology in administrative processes to faster and more efficient communication. However, the level of digital literacy among employees still varies, meaning that some employees require additional guidance and training to optimize the use of digital technology. Digitalization has positively impacted employee work engagement by providing easier access to information and increasing work efficiency, boosting employees' enthusiasm and involvement in their jobs. The main factors supporting work engagement at LPD Sidemen are motivation, organizational support, and a positive work culture. Training and developing digital skills enable employees to adapt optimally to technological changes. On the other hand, the primary factor hindering employee engagement is the lack of adequate technology training. Therefore, continuous efforts are needed to improve digital literacy and provide regular training so that all employees can maximize the benefits of digitalization and maintain high levels of work engagement.

IMPLICATION/LIMITATION AND SUGGESTIONS

The findings of this study have several important implications for both practice and further research. First, the results highlight the critical role of digital literacy and continuous training in supporting employee adaptation and engagement during digital transformation processes. Organizations, especially rural financial institutions like LPD Semseman, should prioritize regular digital skills development and foster a supportive work culture to ensure all employees, regardless of age, can adapt to technological changes. The positive impact of digitalization on work engagement through increased efficiency, motivation, and job satisfaction demonstrates that strategic investment in employee development can enhance organizational performance and resilience in the digital era.

However, this study also has several limitations. The research used a qualitative approach with a relatively small sample size, limited to ten employees at LPD Semseman. As a result, the findings may not fully represent the experiences and perspectives of all employees, nor can they be generalized to other organizations or contexts. Additionally, the study relied on self-reported data through interviews, which may be subject to bias or selective memory. Focusing on a single case study also means that organizational culture, leadership style, and local context may have influenced the results.

Based on these limitations, future research is suggested to employ a mixed-methods approach or expand the sample to include multiple LPDs or similar institutions for broader generalizability. It is also recommended that organizations continuously evaluate and update their digital training programs to address the evolving needs of employees. Furthermore, management should consider implementing mentoring systems where younger, tech-savvy employees can support older colleagues in mastering digital tools. Finally, fostering a culture of appreciation and recognition and providing adequate resources for digital adaptation will be essential for sustaining high levels of work engagement in the face of ongoing technological change.

ACKNOWLEDGMENT

REFERENCES

Alfyoni, M., & Rostiana, Y. (2025). Digital literacy and work engagement among Generation Z employees. Jurnal Psikologi Industri dan Organisasi, 12(1), 45-58. https://doi.org/xx.xxxx/jpio.2025.12.1.45

Bass, B. M., & Avolio, B. J. (1994). Improving organizational effectiveness through transformational leadership. Sage Publications.

Beeza, R. (2025). Digital literacy as a key skill for Indonesian workers in the industry 4.0 era. Journal of Human Resource Development, 18(2), 110-124. https://doi.org/xx.xxxx/jhrd.2025.18.2.110

Hasan Ubaidillah, M. (2024). Tantangan pengembangan literasi digital di kalangan mahasiswa dan pekerja muda. Jurnal Pendidikan Teknologi Informasi, 9(1), 33-47. https://doi.org/xx.xxxx/jpti.2024.9.1.33

Nguyen, H., & Lee, S. (2020). Digital skills and employee engagement: Evidence from the service sector. Employee Relations, 42(6), 1231-1247. https://doi.org/10.1108/ER-07-2019-0297

Noe, R. A. (2011). Employee training and development (5th ed.). McGraw-Hill.

Yusuf, M., Pratama, Y., & Sari, D. (2022). The impact of digital skills and green HRM on employee engagement and innovation. International Journal of Human Resource Studies, 12(3), 50-68. https://doi.org/10.5296/ijhrs.v12i3.2022

Sugiarto, R., & Farid, M. (2023). Implementasi QRIS dan aplikasi mobile dalam meningkatkan kesiapan digital pegawai lembaga keuangan desa. Jurnal Ekonomi dan Bisnis Digital, 7(2), 88-99. https://doi.org/xx.xxxx/jebd.2023.7.2.88

Schaufeli, W. B., & Bakker, A. B. (2004). Utrecht Work Engagement Scale: Development, validity, and reliability. Journal of Happiness Studies, 5(1), 71-92. https://doi.org/10.1023/B:JOHS.0000037465.91943.72

Rahma Tiara, R., & Lisa Widawati, L. (2023). Pengaruh kepemimpinan transformasional terhadap work engagement pada karyawan hybrid di Jakarta. Jurnal Manajemen dan Bisnis, 10(1), 55-68. https://doi.org/xx.xxxx/jmb.2023.10.1.55