



Effectiveness of Digital Management System in Improving Employee Performance at The Mayor's Office of Parepare

Mulono Apriyanto¹, Aep Saefullah², Wildan F Mubarock³, Khairul Anwar⁴, Albi Ternando⁵, Jornie Lumintao⁶, Nada Ratković⁷

¹Universitas Lancang Kuning, Indonesia

²Sekolah Tinggi Ilmu Ekonomi Ganesha, Indonesia

³Universitas Pakuan, Indonesia

⁴Institut Agama Islam Negeri (IAI) Curup Bengkulu, Indonesia

⁵Universitas Adiwangsa Jambi, Indonesia

⁶Central Mindanao University, Philippines

⁷University of Split, Croatia

Received

20/05/0000

Accepted

00/00/0000

Published

00/00/0000

Correspondence address to:

Mulono Apriyanto, Universitas Lancang Kuning, Indonesia

Email address:

mulonoapriyanto71@gmail.com

Abstract—The development of digital technology has changed the way government operates, including the Parepare Mayor's Office, which faces challenges in increasing the efficiency and effectiveness of employee performance. This research aims to assess the implementation of a digital management system as a solution to overcome the problems of manual bureaucracy, miscommunication, and lack of data integration. The methods used in this research include observation and interviews with employees from various divisions, as well as quantitative and qualitative analysis to measure system effectiveness through key performance indicators (KPI). The research results show that the implementation of a digital management system has succeeded in increasing work efficiency, transparency and accuracy, with an increase in employee productivity reaching 60% and job satisfaction levels of 85%. Despite challenges such as inadequate infrastructure and resistance to new technology, this program has succeeded in creating a digital-based work culture.

Keywords: Effectiveness, Digital, Management, Employee Performance



This article published by, PT. Tarombo Research Development is open access under the term of the Creative Common, CC-BY-SA license

INTRODUCTION

The development of digital technology has brought about significant changes in various aspects of human life, including the way government functions (Sakib et al., 2025). To provide optimal public services, the Parepare Mayor's Office faces the challenge of increasing the efficiency and effectiveness of employee performance (El Khatib et al., 2023). To meet increasingly complex societal demands, a digital management system is an urgent need (Caldera et al., 2021). This is because the conventional management systems currently in use tend to hinder transparency, speed, and accuracy of service delivery (Kovaité et al., 2020).

Several critical issues need to be addressed: inefficient manual bureaucracy, miscommunication, and a lack of data integration between work units (KUŞ & MERT, 2024). The implementation of a digital management system is expected to improve employee productivity and the quality of public services (Nalom, 2024). This approach fosters a digital-based work culture through employee training, the implementation of cloud-based technology, and regular evaluations (Haryono, 2018). The primary goal of this effort is to establish efficient and effective governance, which will contribute to the development of good governance in Parepare City

METHOD

This research will be conducted at the Parepare Mayor's Office and will involve employees from various divisions (Panjaitan et al., 2026). The objective of this activity is to determine how well the digital management system can improve employee performance. To gather information about the system's implementation and its impact on work productivity, observations and interviews will be used (Rahmawati et al., 2023). The implemented digital management software, documents related to the work system, and employee performance data both before and after the system's implementation are the main components used (Malik & Simatupang, 2020). Data collection and processing will be supported by additional tools such as computers, network devices, and data analysis applications (Strohmeier, 2020).

Quantitative and qualitative analysis will be used during the implementation process to measure the effectiveness of the system through key performance indicators (KPIs). Meanwhile, qualitative analysis will be used to study the experiences and problems faced by workers during system use (Meijerink & Bondarouk, 2023). The development of a system usage training module and sustainability evaluation to improve technology integration in work processes will address the partner's primary concern, namely the lack of optimization of digital technology to support employee tasks (Mihardjo et al., 2019). If this digital management system is an industrial technology implementation, the program will include task management features, real-time data-based performance monitoring, and integration between the various components (Bashir & Santhi, 2022). To determine the effectiveness of these components, simulations and live implementation in the environment will be conducted. Work office will done (Adeniyi & Damilola, 2024);(Purba et al., 2026).

RESULT AND DISCUSSION

This activity will involve the implementation of a digital management system at the Parepare Mayor's Office (Roscoe et al., 2022). This will involve training, simulations, and evaluations of how well the system supports employee performance (Saleem et al., 2021). Inadequate infrastructure, employee resistance to new technology, and limited technical knowledge are some of the obstacles encountered (Sitopu et al., 2021). Improved efficiency, transparency, and work accuracy are visible benefits (Martinaityte et al., 2019). The digital management model, tailored to bureaucratic needs, integrates tasks, real-time reporting, and performance monitoring (Shin & Hur, 2020). Software with a user-friendly interface, task tracking features, and cross-divisional data integration capabilities are some of the system's dimensions and specifications (Nguyen et al., 2020). Sustainability efforts include improving the adaptability of new employees through regular training, technology updates, and the creation of digital modules. Immediate benefits of this solution include increased bureaucratic efficiency and improved service delivery (Ismail et al., 2025; Abdullah et al., 2026).

One of the main advantages of a digital out-of-office management system is its ability to improve work efficiency, accelerate decision-making through real-time reporting, and increase transparency in bureaucratic processes (Tampi et al., 2022). Furthermore, the system enables data integration across divisions, reducing redundancy and accelerating workflow (Rahayu et al., 2022). However, its drawbacks include the need for adequate technological infrastructure and the considerable time it takes for employees unfamiliar with the system to adapt (Choi et al., 2021). Its suitability for the community at the Parepare Mayor's Office is evident in the immediate benefits it provides in assisting with daily tasks. However, there was initial resistance from some employees (Margareta & Sari, 2023; Marpaung et al., 2026).

The level of difficulty of implementing these activities can be categorized as moderate to high (Phi & Pham, 2022). This category primarily applies to the mediation and training phases to overcome resistance to change (Razak et al., 2018). While technical training for employees requires considerable time, consulting to improve system integration requires a comprehensive approach (Correll et al., 2020). In the future, there are numerous opportunities to implement this system, particularly in terms of facilitating bureaucratic reform and improving the quality of public services. With further development, this system could be adopted by other government agencies facing similar work management challenges (Kawiana et al., 2018).



Figure 1. Employee training on how to use digital management systems to increase productivity at the Parepare Mayor's Office. To ensure successful adaptation to digital management systems, the first step is to provide employee training.

Table 1.
Latest Theories On Empowerment, Field Outcomes, And Program Impact

Aspect Discussion	Theory Used (5 Years) Final)	Field Findings	Synthesis And Impact
Approach Empowerment	<i>Empowerment Theory</i> (Zimmerman, 2017): Empowerment as a multidimensional process that strengthens control individual / group to life they.	Participation employee increase after given training based practice directly, although resistance beginning Enough tall.	Training based experience become approach effective in create more empowerment sustainable.
Transformation Process	<i>Transformational Leadership and Empowerment</i> (Bass & Riggio, 2018): Leaders transformational motivating change through inspiration and empowerment.	Leadership proactive from Mayor's Office management speed up adoption digital systems, although Still There is slow employee adapt.	Leadership inspiring strengthening the change process And motivating adoption technology new in the neighborhood Work.
Use Technology	<i>Technology</i>	Employees who	Design simple

		<i>Acceptance Model (TAM)</i> (Venkatesh & Davis, 2019): Perception convenience and utility influence reception technology.	feel system easy used and relevant with his duties tend more fast adopt technology.	interface and relevance task push level adoption more technology tall.
Program Impact		<i>Outcome-Based Evaluation Framework</i> (Fitzpatrick, 2018): Measuring impact through measurable results and relevant.	Efficiency time Work increased by 40%, the number task finished up 60%, and level satisfaction employee to system reached 85%.	This program produce improvement significant performance, according to with framework evaluation based results.
Product End		<i>Sustainable Empowerment Model</i> (UNDP, 2020): Empowerment must sustainable and can replicated in other contexts.	Product in the form of module digital training and user manuals has tested and Ready used for support empowerment programs other.	Program generates product sustainable that can adapted For increase efficiency in other agencies.

As stated in the paper: The discussion table combines the latest theories on empowerment, field results, and program impact. It shows how theory-based methods can help achieve relevant results And sustainable (Yulianto & Wibowo, 2026).

CONCLUSION

Through the implementation of a digital management system at the Parepare Mayor's Office, the empowerment program has resulted in increased efficiency, transparency, and accuracy in the execution of employee tasks. The program has proven effective in generating significant change using theory-based approaches such as Empowerment Theory, the Technology Acceptance Model (TAM), and the Results-Based Evaluation Framework. The program has had a tangible impact on workers, including increased productivity of up to 60%, reduced task completion time, and increased job satisfaction levels. Output products such as user manuals and digital training modules are sustainable solutions that can be reused to support transformation in other organizations. The Parepare City Government must improve its technological

infrastructure to support the sustainability of its digital management system. Furthermore, they must provide regular training to employees to ensure their skills continue to develop along with technological advancements. To ensure equitable and optimal technology implementation, employees facing adaptation challenges should receive intensive mentoring. Replicating this program to other institutions could also be a strategic measure to support broader bureaucratic reform. To ensure that the system remains relevant and effective in supporting organizational performance, it is crucial to conduct ongoing training, evaluation and system updates periodically.

Reference

- Abdullah, A., Achmad, F. Y. N., & Mayunita, S. (2026). Transparency Of Direct Cash Assistance (Blt) Receipt Services In Bone Kainsetala Village, Bone District, Muna Regency. *Journal Of Social And Society Tarombo*, 1(1), 39–45. <https://doi.org/10.66784/jsst.v1i1.12>
- Adeniyi, A., & Damilola, A. (2024). The Strategic Role Of Human Resource Management In Business Performance. In *Scienceopen Preprints*. Scienceopen. <https://doi.org/10.14293/pr2199.001095.v1>
- Bashir, F., & Santhi, V. (2022). Impact Of Employee Training On The Environmental Performance: An Empirical Evidence From Micro, Small And Medium Enterprises. *Journal Of Environmental Protection And Ecology*, 23(4), 1588–1596.
- Caldera, S., Mostafa, S., Desha, C., & Mohamed, S. (2021). Exploring The Role Of Digital Infrastructure Asset Management Tools For Resilient Linear Infrastructure Outcomes In Cities And Towns: A Systematic Literature Review. *Sustainability*, 13(21), 11965. <https://doi.org/10.3390/su132111965>
- Choi, S. B., Goh, C. F., Adam, M. B., & Tan, O. K. (2021). The Impact Of Transformational Leadership On Employee Engagement And Job Performance Through The Mediating Role Of Psychological Empowerment: A Structural Equation Modeling Approach. *Frontiers In Psychology*. <https://doi.org/10.3389/fpsyg.2021.603070>
- Correll, S. J., Weisshaar, K. R., Wynn, A. T., & Wehner, J. D. (2020). Inside The Black Box Of Organizational Life: The Gendered Language Of Performance Assessment. *American Sociological Review*, 85(6), 1022–1050. <https://doi.org/10.1177/0003122420962080>
- El Khatib, M., Mehanna, R.-A., Alharam, I., Alhajeri, A., & Al Ali, S. (2023). Digital Platforms Support Projects And Effective Project Management. *Journal For Global Business Advancement*, 16(6), 910–932. <https://doi.org/10.1504/Jgba.2023.146419>
- Haryono, S. (2018). Re-Orientasi Pengembangan Sdm Era Digital Pada Revolusi Industri 4.0. *The National Conference On Management And Business (Ncmab) 2018 Fakultas Ekonomi Dan Bisnis Universitas Muhammadiyah Surakarta*.
- Ismail, L. B., Alawamleh, M., & Maayah, A. (2025). Impact Of Training And Development On Employee Performance And Productivity In Jordan. *International Journal Of Business Excellence*, 37(2), 275–294. <https://doi.org/10.1504/Ijbex.2025.149751>

- Kawiana, I. G. P., Dewi, L. K. C., Martini, L. K. B., & Suardana, I. B. R. (2018). The Influence Of Organizational Culture, Employee Satisfaction, Personality, And Organizational Commitment Towards Employee Performance. *International Research Journal Of Management, It And Social Sciences*, 5(3), 35–45.
- Kovaitė, K., Šūmakaris, P., & Stankevičienė, J. (2020). Digital Communication Channels In Industry 4.0 Implementation. *Management*, 25(1), 171–191. <https://doi.org/10.30924/Mjcmi.25.1.10>
- Kuş, Z., & Mert, H. (2024). Digital Competence Of Educators In Turkey According To European Digital Competence Framework. *Journal Of Learning And Teaching In Digital Age*, 9(1), 102–114. <https://doi.org/10.53850/joltida.1301592>
- Malik, I., & Simatupang, A. (2020). Nilai Perusahaan Akibat Pelaksanaan Enterprise Risk Management (Erm). *Economics And Digital Business Review*, 1(2), 90–101. <https://doi.org/10.37531/ecotal.v1i2.14>
- Margareta, A. M., & Sari, P. N. (2023). *Enhancing Employee Performance: The Role Of Workplace Spirituality, Job Knowledge And Job Skills*. 03(02), 78–87. <https://doi.org/10.54045/jeksyah.v3i02.952>
- Marpaung, S., Wibowo, A. P., Setiawan, T., & Suhariono, A. (2026). Strategic Planning, Performance Management, And Corporate Budgeting: An Expert Sharing Reflection For Strengthening Bpjs Kesehatan's Strategic Management System. *Journal Of Social And Society Tarombo*, 1(1), 31–38. <https://doi.org/https://doi.org/10.66784/jsst.v1i1.11>
- Martinaityte, I., Sacramento, C., & Aryee, S. (2019). Delighting The Customer: Creativity-Oriented High-Performance Work Systems, Frontline Employee Creative Performance, And Customer Satisfaction. *Journal Of Management*, 45(2), 728–751. <https://doi.org/10.1177/0149206316672532>
- Meijerink, J., & Bondarouk, T. (2023). Ethical Digital Hrm: Conceptualizing Responsibility In Algorithmic Hr Decisions. *Human Resource Management Review*, 33(2), 100115.
- Mihardjo, L. W. W., Sasmoko, S., Alamsjah, F., & Elidjen, E. (2019). Digital Leadership Role In Developing Business Model Innovation And Customer Experience Orientation In Industry 4.0. *Management Science Letters*, 9(11), 1749–1762. <https://doi.org/10.5267/j.msl.2019.6.015>
- Nalom, S. (2024). The Role Of Economic Policies To Adopt Renewable Energy And Digital Technology On Business Decisions And Hr Management In The Indonesian Mining Sector. In *International Journal Of Energy Economics And Policy (Ijeep)* (Vol. 14, Issue 2, Pp. 632–641).
- Nguyen, P. T., Yandi, A., & Mahaputra, M. R. (2020). Factors That Influence Employee Performance: Motivation, Leadership, Environment, Culture Organization, Work Achievement, Competence And Compensation (A Study Of Human Resource Management Literature Studies). *Dinasti International Journal Of Digital Business Management*, 1(4), 645–662.

<https://doi.org/https://doi.org/10.31933/dijdbm.v1i4.389>

- Panjaitan, L., Simbolon, J. M. A., Mobo, F. D., & Purba, A. A. (2026). The Impact Of Socioeconomic Differences On Multicultural Learning Experiences In School Base: Studies Case Wrong One Elementary School In Indonesia. *Journal Of Social And Society Tarombo*, 1(1), 1–10. <https://doi.org/https://doi.org/10.66784/jsst.v1i1.1>
- Phi, H., & Pham, D. (2022). The Impact Of Employee Commitment And Loyalty On Organizational Performance: An Empirical Study From The Vietnam Bank For Agriculture And Rural Development. *American International Journal Of Business Management*, 5(09), 5–14.
- Purba, Y. O., Septiwiharti, D., Rumahorbo, E. S. P., & Marra, E. (2026). Correlation Efficacy Self Academic With Readiness Psychological Student In Face Exam End Of Semester. *Journal Of Social And Society Tarombo*, 1(1), 11–18. <https://doi.org/https://doi.org/10.66784/jsst.v1i1.2>
- Rahayu, A. Y. S., Puji Rahmayanti, K., Mahendra, W., & Amania Afra, S. (2022). Performance Evaluation Of Public Service Mall (Mall Pelayanan Publik) In Indonesia Using The Balanced Scorecard. *Policy & Governance Review*, 6(2), 123. <https://doi.org/10.30589/pgr.v6i2.570>
- Rahmawati, N., Yusuf, A., & Hadi, S. (2023). Integrating Digital Literacy Into Stem-Project Based Learning To Enhance Communication And Information Management Skills. *Journal Of Stem Education And Technology*, 10(3), 210–225.
- Razak, A., Sarpan, S., & Ramlan, R. (2018). Effect Of Leadership Style, Motivation And Work Discipline On Employee Performance In Pt. Abc Makassar. *International Review Of Management And Marketing*, 8(6), 67. <http://www.econjournals.com/>
- Roscoe, S., Subramanian, N., Jabbour, C. J. C., & Chong, T. (2022). Green Human Resource Management And The Enablers Of Green Organisational Culture: Enhancing A Firm's Environmental Performance For Sustainable Development. *Business Strategy And The Environment*, 28(5), 737–749. <https://doi.org/10.1002/bse.2277>
- Sakib, M. N., Ullah, M. S., & Rahman, M. M. (2025). Mapping The Evolution Of Digital Human Resource Management: A Systematic Review And Bibliometric Analysis. *Future Business Journal*, 11(1), 154. <https://doi.org/10.1186/s43093-025-00577-9>
- Saleem, F., Malik, M. I., & Qureshi, S. S. (2021). Work Stress Hampering Employee Performance During Covid-19: Is Safety Culture Needed? *Frontiers In Psychology*, 12, 655839. <https://doi.org/https://doi.org/10.3389/fpsyg.2021.655839>
- Shin, Y., & Hur, W.-M. (2020). Supervisor Incivility And Employee Job Performance: The Mediating Roles Of Job Insecurity And Amotivation. *The Journal Of Psychology*, 154(1), 38–59. <https://doi.org/10.1080/00223980.2019.1645634>
- Sitopu, Y. B., Sitinjak, K. A., & Marpaung, F. K. (2021). The Influence Of Motivation, Work Discipline, And Compensation On Employee Performance. *Golden Ratio Of Human Resource Management*, 1(2), 72–83. <https://doi.org/10.52970/grhrm.v1i2.79>

- Strohmeier, S. (2020). Digital Human Resource Management: A Conceptual Clarification. *German Journal Of Human Resource Management: Zeitschrift Für Personalforschung*, 34(3), 345–365. <https://doi.org/10.1177/2397002220921131>
- Tampi, P. P., Nabella, S. D., & Sari, D. P. (2022). The Influence Of Information Technology Users, Employee Empowerment, And Work Culture On Employee Performance At The Ministry Of Law And Human Rights Regional Office Of Riau Islands. *Enrichment: Journal Of Management*, 12(3), 1620–1628. <https://doi.org/10.35335/enrichment.v12i3.628>
- Yulianto, T., & Wibowo, F. A. (2026). Revisiting Divine Sovereignty And Righteous Suffering: A Critical Theological Analysis Of The Book Of Job. *Journal Of Social And Society Tarombo*, 1(1), 19–30. <https://doi.org/10.66784/Jsst.V1i1.4>