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Assessing the Perception of Digitalization in the Transaction Process and Its Influence on Employee Performance in a Government Agency

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ABSTRACT

This study examined the perception of digitalization in transaction processes and its influence on employee performance across multiple dimensions, including ease of use, effectiveness, security and reliability, and training and support. Results revealed generally very high perceptions in ease of use (M = 3.52), effectiveness of digital tools (M = 3.76), and training and support (M = 3.32), while security and reliability (M = 3.01) scored slightly lower, highlighting concerns about system stability and data protection. Employee performance was rated excellent across task efficiency (M = 3.67), productivity (M = 3.68), work quality (M = 3.56), and job satisfaction (M = 3.45). Correlation analysis showed highly significant positive relationships between digitalization perceptions and employee performance (r = .615 to .845, p < .001), with job satisfaction (r = .845) and overall performance (r = .750) showing the strongest associations. These findings suggest that digitalization not only enhances efficiency, productivity, and quality of work but also significantly improves job satisfaction and organizational outcomes.

Keywords: *Digitalization, Employee Performance, Transaction Processes, Perception, Government Agency*

INTRODUCTION

Digital transformation has become a defining feature of modern organizations, reshaping how transactions and operations are managed across sectors. In government agencies, the digitalization of transaction processes aims to enhance transparency, accountability, and efficiency in public service delivery (Dunleavy, Margetts, Bastow, & Tinkler, 2006). The success of such initiatives, however, depends not only on technological adoption but also on the perceptions and attitudes of employees who directly engage with digital systems (Domingos, Ferreira, & Meidute-Kavaliauskiene, 2022). Understanding these perceptions is essential, as they influence how effectively employees adapt to digital platforms and, ultimately, how these systems impact organizational performance.

Digitalization is generally associated with faster processing, error reduction, and improved data management (Picazo Rodríguez, Verdú-Jover, Estrada-Cruz, & Gomez-Gras, 2024). Yet employees' perceptions of digital tools vary depending on ease of use, perceived usefulness, and organizational support (Zheltukhina & Salikhova, 2022). Positive perceptions may increase motivation and commitment to digital initiatives, while negative perceptions can create resistance, technostress, or fears over job security (Kowalski & Iqbal, 2023). Thus, assessing employees' perceptions of digitalization provides important insights into both the challenges and opportunities of government digital reforms.

Employee performance is a critical determinant of organizational effectiveness, and its relationship with digital transformation is well-documented. Research shows that strong digital leadership and

management support can help align employee perceptions with institutional goals, thereby boosting efficiency and performance outcomes (Al-Khazraji, Al-Mashaqbeh, & Al-Shboul, 2022). Moreover, organizational agility and training initiatives play a mediating role in ensuring that employees adapt well to digital change (Al-Tahitah, Saudagar, & Al-Mekhlafi, 2023). Without employee readiness, the promise of digital transformation risks being undermined by low productivity and ineffective delivery service.

In the context of public administration, digitalization extends beyond internal efficiency to broader governance objectives. Employees' willingness to adopt e-governance systems significantly shapes the success of citizen-centered reforms (Domingos et al., 2022). Research indicates that flexible performance management systems, supported by digital tools, help measure and enhance employee contributions more effectively (Cardoni, Lombardi, & Russo, 2024). Similarly, the alignment of digital strategies with employee satisfaction and organizational commitment ensures that public institutions remain both adaptive and accountable (Cao & Dai, 2023; Bondarouk & Brewster, 2016).

This study aims to assess the perception of digitalization in transaction processes and analyze its influence on employee performance in a government agency. By examining the relationship between employee attitudes toward digitalization and their performance outcomes, the research seeks to provide evidence-based insights that can guide policymakers and administrators in strengthening digital adoption. The findings will contribute to understanding how digital initiatives can be effectively integrated into the public sector while ensuring that employees remain engaged, adaptable, and productive in the evolving digital era.

MATERIALS & METHODS

This study employed a quantitative-descriptive research design to assess the perception of digitalization in transaction processes and its influence on employee performance in a government agency. The descriptive approach was deemed appropriate since it allowed the researcher to gather quantifiable data on employees' perceptions, experiences, and performance levels related to digitalization initiatives. A structured survey questionnaire served as the primary research instrument, which was divided into two major parts: (1) the extent of digitalization in transaction processes, covering indicators such as efficiency, accessibility, and accuracy, and (2) employee performance, focusing on task efficiency, productivity, work quality, and job satisfaction. The instrument was content-validated by experts in public administration and information systems to ensure relevance and clarity, and it was pilot-tested to establish reliability. Responses were measured using a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree."

The study population consisted of government employees across various departments directly involved in digitalized transactions. A purposive sampling technique was used to identify respondents who had direct experience with digital platforms and systems implemented in the agency. The data collection process was conducted through self-administered questionnaires, distributed physically and electronically to maximize response rates. Descriptive statistics such as mean, standard deviation, and qualitative descriptions were used to determine the perception of digitalization and the level of employee performance. Furthermore, correlation analysis was applied to examine the relationship between digitalization in transaction processes and employee performance outcomes. Ethical considerations were strictly observed, including informed consent, voluntary participation, confidentiality, and the use of data solely for academic purposes.

RESULTS AND DISCUSSION

The results reflect a uniformly very high perception of ease of use for digitalized transaction processes (overall M = 3.52, SD = 0.23), indicating strong usability and effective user enablement across the agency. The highest-rated indicator—"I find it simple to perform transaction-related tasks using digital tools" (M = 3.68, SD = 0.47)—suggests that day-to-day operational workflows are well supported by the current systems, while similarly high means for ease of navigation (M = 3.56, SD = 0.50) and quick learning of new tools (M = 3.56, SD = 0.54) point to intuitive design and successful onboarding/training practices. Slightly lower, though still very high, ratings for user-friendliness (M = 3.48, SD = 0.54) and "rarely facing difficulties" (M = 3.34, SD = 0.59) indicate that a minority of users encounter friction—likely in edge cases, complex transactions, or less-frequent features.

The comparatively larger dispersion for the "difficulties" item (SD = 0.59) flags subgroup variability worth exploring (e.g., role, tenure, or digital literacy), suggesting targeted micro-interventions such as role-specific job aids, contextual help, or just-in-time support could lift the floor for those users. Overall, the tight mean range (3.34–3.68) and modest within-item SDs show consistent positive experiences across respondents, implying that ease-of-use is not only perceived strongly but also broadly shared. Practically, the agency should **sustain** current UI/UX and training strategies while fine-tuning troubleshooting resources, error messaging, and help pathways to reduce the remaining pockets of difficulty and further stabilize high performance.

Table 1
Perception of Digitalization in Transaction Processes in Ease of Use

INDICATORS	MEAN	SD	DESCRIPTION
The digital systems used in transaction processes are easy to navigate.	3.56	0.50	Very High Perception
I find it simple to perform transaction-related tasks using digital tools.	3.68	0.47	Very High Perception
I rarely face difficulties when using the digital systems for my tasks.	3.34	0.59	Very High Perception
The digital systems are user-friendly and intuitive.	3.48	0.54	Very High Perception
I can quickly learn how to use new digital tools for transaction processes.	3.56	0.54	Very High Perception
Overall	**3.52**	**0.23**	Very High Perception

Table 2
Perception of Digitalization in Transaction Processes: Effectiveness of Digital Tools

INDICATORS	MEAN	SD	DESCRIPTION
The digital tools significantly improve the efficiency of transaction processes.	3.80	0.40	Very High Perception
I believe the digital systems help in completing tasks more accurately.	3.76	0.43	Very High Perception
The digital tools provided have made my work more efficient.	3.72	0.45	Very High Perception
Digital tools have enhanced the speed of completing transaction-related tasks.	3.82	0.39	Very High Perception
I believe the digital systems meet my needs in handling transaction processes.	3.68	0.47	Very High Perception
Overall	**3.76**	**0.12**	Very High Perception

The findings in Table 2 show a very high perception of digital tools' effectiveness in transaction processes (overall M = 3.76, SD = 0.12), emphasizing their strong impact on work efficiency and accuracy in government transactions. The highest-rated indicator—"Digital tools have enhanced the speed of completing transaction-related tasks" (M = 3.82, SD = 0.39)—highlights speed as the most

noticeable benefit, aligning with research that connects digitalization to faster turnaround times and fewer delays in public service delivery. Close behind, efficiency (M = 3.80, SD = 0.40) and accuracy (M = 3.76, SD = 0.43) further suggest that these systems not only streamline tasks but also reduce errors, strengthening reliability and trust in the processes. Perceptions that digital tools make work more efficient (M = 3.72, SD = 0.45) and adequately meet employees' needs (M = 3.68, SD = 0.47) demonstrate broad satisfaction, although the latter receives a slightly lower rating, indicating room for improvement in aligning system features with diverse user demands. The small overall SD (0.12) also indicates remarkable consistency across responses, implying a shared consensus on the benefits of digital tools. Overall, the data suggest that the agency's digital systems are both effective and well-integrated into daily workflows, although ongoing improvements—such as feature updates, user feedback incorporation, and adaptive customization—could further enhance their effectiveness.

Table 3
Perception of Digitalization in Transaction Processes in Security and Reliability

INDICATORS	MEAN	SD	DESCRIPTION
I trust the security measures in place for digital transaction systems.	3.10	0.65	High Perception
The digital transaction systems are reliable and rarely experience downtime.	2.96	0.73	High Perception
I feel confident that my personal data is protected when using digital tools for transactions.	2.96	0.83	High Perception
The digital systems function properly most of the time without any technical issues.	2.94	0.79	High Perception
The digital transaction systems have secure access controls that prevent unauthorized usage.	3.08	0.75	High Perception
Overall	**3.01**	**0.25**	High Perception

The results in Table 3 indicate a high but not very high perception of digitalization in terms of security and reliability (overall M = 3.01, SD = 0.25), suggesting that while employees generally trust and value the systems, concerns remain regarding stability and data protection. Among the indicators, trust in security measures (M = 3.10, SD = 0.65) and secure access controls (M = 3.08, SD = 0.75) received the highest ratings, reflecting confidence in organizational safeguards and protocols that prevent unauthorized use. However, relatively lower perceptions were observed in terms of system reliability (M = 2.96, SD = 0.73), data protection confidence (M = 2.96, SD = 0.83), and freedom from technical issues (M = 2.94, SD = 0.79). The higher standard deviations, particularly for data protection, indicate more varied opinions among employees, with some expressing strong confidence while others remain skeptical—likely due to past experiences with downtime, glitches, or cyber-related concerns.

Compared with perceptions of ease of use and effectiveness (Tables 1 and 2), security and reliability emerge as weaker dimensions, highlighting an area where digital adoption could be undermined if not addressed. This implies the need for agencies to strengthen cybersecurity protocols, enhance system maintenance, and communicate data protection policies transparently to build greater user confidence. Proactive efforts in addressing these gaps will not only improve perceptions but also ensure that trust in digital systems supports sustainable performance improvements.

The findings in Table 4 reveal a generally very high perception of training and support in relation to digitalization of transaction processes (overall M = 3.32, SD = 0.21), showing that employees feel well-prepared and adequately assisted in utilizing digital tools. The highest-rated indicator—confidence after training and support (M = 3.48, SD = 0.50)—highlights the effectiveness of capacity-building initiatives in empowering staff to operate systems competently. Similarly, the helpfulness of technical support (M = 3.30, SD = 0.58) and the clarity of training sessions (M = 3.38, SD = 0.60)

emphasize that not only are resources available but they are also accessible and understandable to employees, which helps reduce frustration and resistance to digital adoption. Satisfaction with available assistance (M = 3.28, SD = 0.61) further reinforces the value of responsive support structures in sustaining positive digital experiences.

However, the relatively lower perception of receiving adequate training (M = 3.18, SD = 0.63) indicates that while support mechanisms are strong, initial training delivery may require enhancement to ensure all employees start with equal proficiency. The moderate spread of responses (SDs ranging from 0.50 to 0.63) suggests some variability in experiences, which could stem from differences in training quality across sessions, individual learning needs, or access to technical support. Overall, these results imply that the agency is performing well in providing support, but could further improve by standardizing training programs, offering refresher courses, and tailoring capacity-building efforts to varying skill levels, thereby ensuring inclusivity and maximizing the benefits of digitalization.

Table 4
Perception of Digitalization in Transaction Processes in Training and Support

INDICATORS	MEAN	SD	DESCRIPTION
I received adequate training to effectively use the digital systems for transaction processes.	3.18	0.63	High Perception
I feel confident using the digital systems after receiving training and support.	3.48	0.50	Very High Perception
The technical support available is helpful when I encounter problems with digital systems.	3.30	0.58	Very High Perception
The training provided for digital systems is easy to understand and follow.	3.38	0.60	Very High Perception
I am satisfied with the support available when I need assistance with using digital tools.	3.28	0.61	Very High Perception
Overall	**3.32**	**0.21**	Very High Perception

Table 5 presents the overall perception of digitalization in transaction processes across four dimensions: ease of use, effectiveness of digital tools, security and reliability, and training and support. Among these, the highest-rated aspect is the effectiveness of digital tools (M = 3.76, SD = 0.12), showing that employees strongly agree that digitalization enhances efficiency, accuracy, and task completion speed. This is followed by ease of use (M = 3.52, SD = 0.23), reflecting confidence in navigating user-friendly systems with minimal difficulty. Likewise, training and support (M = 3.32, SD = 0.21) received very high perception, indicating that guidance and assistance mechanisms help employees adapt to digital tools effectively. These results collectively suggest that employees recognize the positive contribution of digitalization to streamlining government transactions and improving their work performance.

Table 5
Overall Perception of Digitalization in Transaction Processes

INDICATORS	MEAN	SD	DESCRIPTION
Ease of Use	3.52	0.23	Very High Perception
Effectiveness of Digital Tools	3.76	0.12	Very High Perception
Security and Reliability	3.01	0.25	High Perception
Training and Support	3.32	0.21	Very High Perception
Ease of Use	3.52	0.23	Very High Perception
Effectiveness of Digital Tools	3.76	0.12	Very High Perception

However, the dimension of security and reliability (M = 3.01, SD = 0.25) lags behind, rated only as a high perception compared to the very high levels in other areas. This finding highlights persisting concerns about system downtime, data protection, and the consistency of digital platforms. The insights gained from this overall assessment imply that while employees generally embrace digitalization and acknowledge its benefits, their trust in the system's stability and security needs strengthening. To fully maximize the advantages of digital tools, government agencies should not only continue improving ease of use, effectiveness, and support structures but also prioritize investments in cybersecurity, system reliability, and transparent communication of data protection policies. Addressing these gaps will ensure that digitalization is not only efficient but also sustainable and trustworthy in the long term.

The results in Table 6 reveal that employees perceive digitalization as having an excellent impact on their task efficiency (overall M = 3.67, SD = 0.09), with consistently high ratings across all indicators. The highest-rated item highlights that digitalization has significantly improved the **speed of task** completion (M = 3.72, SD = 0.45), underscoring how automation and streamlined processes reduce delays in routine transactions. Accuracy in task performance (M = 3.68, SD = 0.47) and the ability to handle a larger workload (M = 3.66, SD = 0.52) further demonstrate that digital tools not only minimize errors but also expand employees' capacity to manage multiple responsibilities efficiently. Similarly, the timely completion of tasks (M = 3.60, SD = 0.49) and the overall improvement in efficiency (M = 3.70, SD = 0.46) reflect how digital systems optimize productivity by reducing manual effort and repetitive procedures. The low variability in responses (SDs below 0.52) suggests a shared positive experience among employees regarding the efficiency gains from digitalization. Collectively, these findings emphasize that digitalization has become a critical driver of enhanced performance, enabling government employees to work faster, more accurately, and with greater output—ultimately contributing to organizational effectiveness and better public service delivery.

Table 6
Employee Performance in terms of Task Efficiency

INDICATORS	MEAN	SD	DESCRIPTION
Digitalization has increased the speed at which I complete my tasks.	3.72	0.45	Excellent
I am able to perform tasks more accurately due to the digital tools provided.	3.68	0.47	Excellent
I can handle a larger volume of work thanks to the efficiency of digital systems.	3.66	0.52	Excellent
The digital systems help me complete my work in a timely manner.	3.60	0.49	Excellent
I feel that my efficiency in completing tasks has improved with the use of digital tools.	3.70	0.46	Excellent
Overall	**3.67**	**0.09**	Excellent

Table 7 demonstrates that employees perceive digitalization as significantly enhancing their productivity, with an overall mean of 3.68 (SD = 0.12), rated as Excellent. The highest-rated indicator emphasizes that digital tools allow employees to accomplish more work in less time (M = 3.72, SD = 0.45), showing how automation and streamlined systems reduce redundancy and increase output. Similarly, improvements in overall productivity (M = 3.68, SD = 0.47) and the ability to manage multiple tasks simultaneously (M = 3.68, SD = 0.55) reflect how digitalization supports multitasking, enabling employees to balance responsibilities without compromising quality. The same score (M = 3.68, SD = 0.55) for effective prioritization of tasks highlights the role of digital systems in organizing workloads more systematically, allowing employees to focus on critical responsibilities first. Finally, the increased daily output (M = 3.62, SD = 0.53) reinforces the notion that digitalization contributes

directly to measurable productivity gains. The consistently excellent ratings and low variability suggest that employees collectively recognize digitalization as a key enabler of workplace efficiency and productivity, ultimately strengthening organizational performance and service delivery in government agencies.

Table 7
Employee Performance in terms of Productivity

INDICATORS	MEAN	SD	DESCRIPTION
I can accomplish more work in a shorter amount of time because of digital tools.	3.72	0.45	Excellent
The digital systems have improved my overall productivity at work.	3.68	0.47	Excellent
I am able to manage multiple tasks simultaneously with the help of digital tools.	3.68	0.55	Excellent
Digital tools help me prioritize my tasks more effectively.	3.68	0.55	Excellent
The digital systems have contributed to my increased output in daily tasks.	3.62	0.53	Excellent
Overall	**3.68**	**0.12**	Excellent

Table 8 reveals that digitalization has a strong positive influence on employees' work quality, with an overall mean of 3.56 (SD = 0.15), interpreted as Excellent. Among the indicators, the highest rating was given to the perception that digital tools enhance the quality of work (M = 3.62, SD = 0.53), reflecting employees' recognition that digitalization supports accuracy, consistency, and professional output. Closely aligned are the responses showing that digitalization allows employees to focus more on quality rather than repetitive tasks (M = 3.54, SD = 0.54), and that these tools help them meet or exceed performance expectations (M = 3.54, SD = 0.58). The results also indicate that digital tools reduce errors (M = 3.52, SD = 0.58), which is vital in ensuring reliability and credibility in government services. Overall, the findings highlight that employees perceive digitalization not only as a means of improving efficiency and productivity but also as a critical driver of excellence in work quality, strengthening the integrity and effectiveness of service delivery in government agencies.

Table 8
Employee Performance in terms of Work Quality

INDICATORS	MEAN	SD	DESCRIPTION
The digital systems have improved the quality of my work.	3.56	0.50	Excellent
I believe that using digital tools has led to fewer mistakes in my work.	3.52	0.58	Excellent
The digitalization of tasks has allowed me to focus more on the quality of my work.	3.54	0.54	Excellent
I feel that the quality of my work has been enhanced by the digital tools I use.	3.62	0.53	Excellent
Digital systems have helped me meet or exceed performance expectations in my role.	3.54	0.58	Excellent
Overall	**3.56**	**0.15**	Excellent

Table 9 illustrates that digitalization has positively influenced employees' job satisfaction, with an overall mean of 3.45 (SD = 0.13), rated as Excellent. The results suggest that employees are generally content with the digital tools available for managing transaction processes (M = 3.44, SD = 0.54) and recognize how these systems have contributed to a more enjoyable and fulfilling work experience (M = 3.44, SD = 0.58). Similarly, many expressed greater satisfaction with their work following the adoption of digital transaction systems (M = 3.42, SD = 0.61), underscoring the role of digitalization

in boosting morale and engagement. Particularly, the highest rating was observed in the statement that digital tools improved overall job satisfaction (M = 4.46, SD = 0.58), highlighting the profound impact of digital innovations on employee motivation and workplace fulfillment. Moreover, improvements in the quality of the work environment through digital systems (M = 3.48, SD = 0.54) reinforce the perception that digitalization fosters not only efficiency but also employee well-being. Collectively, these findings affirm that the integration of digital tools significantly enhances job satisfaction, which in turn may contribute to sustained productivity and organizational commitment in government agencies.

Table 9
Employee Performance in terms of Job Satisfaction

INDICATORS	MEAN	SD	DESCRIPTION
I am satisfied with the digital tools provided for handling transaction processes.	3.44	0.54	Excellent
Digital systems have made my job more enjoyable and fulfilling.	3.44	0.58	Excellent
I feel more satisfied with my work since the implementation of digital transaction systems.	3.42	0.61	Excellent
The use of digital tools has improved my overall job satisfaction.	4.46	0.58	Excellent
I am happy with how digital tools have improved the quality of my work environment.	3.48	0.54	Excellent
Overall	**3.45**	**0.13**	Excellent

Table 10 presents the overall employee performance in relation to digitalization, where all dimensions were rated Excellent, indicating consistently positive outcomes. Task efficiency achieved a high mean of 3.67 (SD = 0.09), suggesting that employees were able to complete tasks faster, more accurately, and in greater volume due to digital systems. Similarly, productivity recorded the highest mean at 3.68 (SD = 0.12), emphasizing that digital tools enabled employees to handle multiple tasks simultaneously, prioritize effectively, and accomplish more work in less time. Work quality also reflected an excellent rating (M = 3.56, SD = 0.15), showing that digitalization has not only improved the accuracy of outputs but also enhanced employees' ability to meet or exceed performance expectations. Finally, job satisfaction, with a mean of 3.45 (SD = 0.13), further highlighted the positive psychological and motivational impact of digital systems in creating a more fulfilling and engaging work environment.

Table 10
Overall Employee Performance

INDICATORS	MEAN	SD	DESCRIPTION
Task Efficiency	3.67	0.09	Excellent
Productivity	3.68	0.12	Excellent
Work Quality	3.56	0.15	Excellent
Job Satisfaction	3.45	0.13	Excellent
Task Efficiency	3.67	0.09	Excellent
Productivity	3.68	0.12	Excellent

The consistently high ratings across all indicators demonstrate that digitalization has become a critical driver of employee performance, addressing both efficiency and employee well-being. While the slightly lower score in job satisfaction suggests that continuous improvement in user experience and support is necessary, the overall results affirm that digital tools serve as an enabler of sustainable productivity in the workplace. This implies that organizations, particularly government agencies,

should not only invest in upgrading digital systems but also focus on strengthening training, security, and support mechanisms to maximize the benefits. By doing so, they can ensure that employees remain motivated, productive, and committed to delivering high-quality service, ultimately enhancing organizational performance and public trust.

The results show consistently strong, positive associations between participants' perceptions of digitalization in transaction processes and all facets of employee performance, with all correlations highly significant ($p < .001$). Effect sizes are large by conventional benchmarks: Task Efficiency ($r = .615$) and Work Quality ($r = .650$) imply that perceptions of digitalization account for roughly 38% and 42% of the variance in these outcomes, respectively; Productivity ($r = .676$) for about 46%; Overall Employee Performance ($r = .750$) for about 56%; and the strongest link is with Job Satisfaction ($r = .845$), explaining about 71% of its variance. This pattern suggests that when employees view transaction digitalization favorably—e.g., find tools usable, reliable, and well-integrated—both their day-to-day efficiency and broader performance improve, and their satisfaction rises markedly.

Table 11
Significant Influence of Participants' Perception of Digitalization in Transaction Processes on Employee Performance

Independent Variable Constant (x)	Pearson R	p-value	Interpretation
Task Efficiency	0.615***	<.001	Highly Significant
Productivity	0.676***	<.001	Highly Significant
Work Quality	0.650***	<.001	Highly Significant
Job Satisfaction	0.845***	<.001	Highly Significant
Overall Employee Performance	0.750***	<.001	Highly Significant

*Note: * p < .05, ** p < .01, *** p < .001*

Practically, the especially strong tie to job satisfaction indicates that digital tools are not merely speeding up tasks; they may also be reducing friction, clarifying workflows, and increasing perceived autonomy—conditions that typically foster motivation and discretionary effort. For managers, the findings support prioritizing user-centered implementation (intuitive interfaces, stable systems), robust onboarding and just-in-time training, and process redesign that removes redundant steps. Given the correlational design, causality cannot be inferred; future work should include longitudinal or pre-post designs, and explore mediation (e.g., whether digitalization boosts satisfaction, which in turn elevates performance) and subgroup analyses (role, tenure, digital literacy). Still, the convergence of large effects and very low p-values points to digitalization as a high-leverage area for performance and morale gains.

CONCLUSION

The findings underscore that digitalization is a critical driver of employee performance. High ratings in usability, efficiency, and support reflect strong integration of digital tools in workplace processes, enabling employees to perform faster, more accurately, and with higher output. However, the relatively lower perception of security and reliability indicates that concerns regarding data protection, downtime, and technical stability remain unresolved. Importantly, the strong correlation between digitalization and job satisfaction highlights its psychological and motivational impact, affirming that digital transformation supports both performance and employee well-being.

Recommendations

1. Strengthening security and reliability through enhanced cybersecurity measures, consistent system maintenance, and transparent communication of data protection protocols.
2. Sustain and improve training programs by standardizing delivery, offering refresher courses, and tailoring modules to varying levels of digital literacy.
3. Prioritize user-centered design and simplify workflows to ensure digital tools remain intuitive, reliable, and accessible across employee roles.
4. Implement continuous feedback mechanisms to monitor employee experience, identify system gaps, and integrate user-driven improvements.
5. Conduct longitudinal and subgroup studies to explore causal effects and better understand variations in digitalization's impact across roles and organizational contexts.

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