

THE ROLE OF MANAGEMENT SUPPORT IN ENHANCING IT UTILIZATION FOR EMPLOYEE PERFORMANCE

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Abstract

This study aims to examine the effect of information technology (IT) utilization on employee performance, with management support as a moderating variable. The theoretical foundation of this research is the Task-Technology Fit (TTF) model, which posits that IT contributes to individual performance when its features align with the user's task requirements. The study employed a quantitative descriptive method using survey data collected from 58 employees at the Regional Office of the Directorate General of Treasury in Central Java Province. The research instruments were adapted from validated previous studies and analyzed using simple linear regression and Moderated Regression Analysis (MRA). The findings show that IT utilization has a positive influence on employee performance, especially when it helps streamline tasks, improve productivity, and support work effectiveness. Furthermore, management support manifested through active involvement, resource provision, and leadership in change significantly moderates the relationship between IT use and performance outcomes. This research contributes to the discourse in Human Resource Management and Information Systems, providing strategic recommendations for enhancing IT adoption and employee productivity in public sector institutions.

Keywords: information technology, employee performance, management support, performance theory, public sector

INTRODUCTION

The adoption of information technology (IT) in the public sector has become essential in improving efficiency, transparency, and accountability. In the Indonesian context, systems such as SPAN, SAKTI, and OM-SPAN have been widely implemented in institutions such as the Directorate General of Treasury. These systems are designed to accelerate data processing and facilitate reporting, but their success often depends not only on their availability but also on how effectively they are utilized by employees.

While technology can enhance performance, its successful implementation is rarely detached from organizational dynamics. Management support is often expected to play a critical role in bridging technological availability with employee productivity. However, the extent to which management support influences the effectiveness of IT in the public sector remains unclear. Performance Theory, as proposed by Robbins, argues that individual performance is shaped by ability, effort, and organizational support (Robbins in Mathis & Jackson, 2006). Therefore, this research explores whether IT utilization improves employee performance and whether management support strengthens this relationship.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Performance Theory, introduced by Robbins Robbins in Mathis & Jackson (2006), explains that performance is influenced by a combination of ability, effort, and organizational support. In this framework, the presence of IT systems such as NADINE, OM-SPAN, and SAKTI can serve as structural support that enables employees to perform tasks more accurately and efficiently. However, the effectiveness of these systems also depends on how well employees are trained, how often the

systems are used, and whether the systems align with task requirements. Amin et al. (2017) support this by showing that the level of IT integration in work processes significantly affects performance outcomes. Similarly, Telaumbanua et al. (2024) demonstrated that IT utilization contributes up to 75.6% of employee performance variance, further strengthening the argument for its strategic importance.

The role of management support has been studied extensively, particularly as a potential moderator in the relationship between IT and performance. Jayeola et al. (2022) argued that top management support plays a central role in facilitating IT implementation by providing resources, setting clear goals, and fostering commitment among staff. Other studies, such as those by Fareed & Su (2022), confirmed that managerial involvement strengthens governance in IT systems and increases employee engagement. However, van Dun & Kumar (2023) questioned whether management support consistently moderates technology effectiveness, suggesting that digital culture and individual readiness may have a stronger impact. These mixed findings indicate that the effectiveness of management support may depend on contextual factors such as organizational structure, leadership style, and employee autonomy.

Given these theoretical considerations and prior empirical evidence, this study proposes two hypotheses.

H1: IT utilization positively influences employee performance.

H2: Management support is expected to moderate the relationship between IT utilization and performance.

RESEARCH METHODS

This research applied a quantitative descriptive method, conducted at the Regional Office of DJPb in Central Java. The population in this study consisted of 58 employees, with 43 valid responses collected and analyzed. A total sampling approach was used due to the relatively small and specific population. Data collection was carried out using a structured questionnaire with a five-point Likert scale, adapted from previously validated instruments. The analytical techniques employed included validity and reliability testing, classical assumption testing, simple regression analysis, and moderated regression analysis using SPSS version 25.

The variables measured in the study include IT utilization as the independent variable, employee performance as the dependent variable, and management support as the moderating variable. Indicators for IT utilization focused on access, integration, and frequency of system use. Employee performance was measured using indicators such as quality of work, task completion, initiative, and skill development. Meanwhile, management support was assessed through indicators such as leadership involvement, resource provision, and encouragement for digital engagement. All measurement instruments were derived and adapted from sources such as Amin et al. (2017), Jayeola et al. (2022), Widyastuti & Hidayat (2018).

RESULTS AND DISCUSSION

This section presents the descriptive statistics, assumption tests, and hypothesis testing results derived from the 43 valid responses. The research began with a descriptive analysis of the main variables: Information Technology Utilization (IT), Employee Performance (EP), and Management Support (MS). Table 1 displays the mean values of each IT utilization item. The average scores were consistently in the "very high" category, with the highest being "routine use

of technology in work” (mean = 4.35). Likewise, the Employee Performance variable showed high means, particularly in indicators such as “meeting work targets” and “task innovation,” as seen in Table 2. Management Support was also rated highly by respondents, indicating positive perceptions of leadership's involvement in digital transformation (see Table 3).

Tabel 1 Descriptive Statistics of IT Utilization

Code	Item Statements	Mean	Criteria
T11	I routinely use information technology to complete my work.	4.3488	Very High
T12	I have up-to-date knowledge regarding the information technology used in my workplace.	4.3256	Very High
T13	I can easily get assistance from IT specialists when facing technology-related issues.	4.2791	Very High
T14	My organization provides adequate technical support for the use of information technology.	4.3256	Very High
T15	The available software and hardware meet the needs of my work.	4.2791	Very High
T16	Information technology systems are maintained regularly to support the smooth running of my work.	4.2558	Very High
T17	I can easily access work-related information or data using information technology.	4.2791	Very High
T18	Wi-Fi and internet facilities are sufficient to support the execution of my tasks.	4.2326	Very High
T19	Information technology systems help me collaborate more efficiently with my colleagues.	4.1395	High
T110	Help desk services are available and help me minimize errors in using the system.	4.2558	Very High

Source: Processed Data, 2025

Tabel 2 Descriptive Statistics of Employee Performance

Code	Item Statements	Mean	Criteria
KP1	The results of my work genuinely have good quality.	4.1395	High
KP2	I complete work according to the standards set by the institution.	4.5581	Very High
KP3	I am able to complete tasks within the time targets set by the institution.	4.4419	Very High
KP4	I am able to develop ideas to meet the quantity targets set by the institution.	4.4651	Very High

Code	Item Statements	Mean	Criteria
KP5	I innovate in completing my work tasks.	4.4651	Very High
KP6	I demonstrate high creativity in decision-making.	4.2558	Very High
KP7	I am able to solve work problems quickly.	4.3953	Very High
KP8	I have high initiative in solving problems at the workplace.	4.2093	High

Source: Processed Data, 2025

Tabel 3 Descriptive Statistics of Management Support

Code	Item Statements	Mean	Criteria
MS1	Management provides administrative support in the implementation of information technology in my workplace.	4.3023	High
MS2	Management encourages employees to utilize information technology in performing their tasks.	4.4884	Very High
MS3	Management understands the benefits of using information technology in supporting employee performance.	4.4419	Very High
MS4	Management provides sufficient resources for the implementation and continued use of information technology.	4.4186	Very High
MS5	Management understands the risks that may occur in the implementation of information technology.	4.4186	Very High
MS6	Management is committed to helping the organization gain advantages through the use of information technology.	4.3953	Very High
MS7	Management considers the use of information technology as a strategic aspect for the organization.	4.3023	Very High

Source: Processed Data, 2025

Next, classical assumption tests were conducted to ensure regression validity. Normality was confirmed using the Kolmogorov-Smirnov test (Asymp. Sig. = 0.102 > 0.05), indicating that the data were normally distributed. Heteroscedasticity testing using the Glejser method produced significance values above 0.05, confirming homogeneity of residuals. The Durbin-Watson test showed a value of 2.281, falling within the acceptable range (1.6091 < DW < 2.3909), meaning the data are free from autocorrelation. The results of the simple linear regression analysis indicated that IT utilization has a positive and significant effect on employee performance. Table 4 shows the regression coefficient of 0.567 with a significance level of < 0.001. This confirms that better IT integration leads to improved performance. The model explains 22% of the variance in performance (Adjusted R² = 0.220), as shown in Table 5.

Tabel 4. Simple Regression Test of IT on Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.943	.678		2.866	.007
Information Technology	.567	.158	.489	3.586	<.001

Source: SPSS Output, 2025

Table 5. R-Square Without Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.489 ^a	.239	.220	.36164

Source: SPSS Output, 2025

To test the moderation hypothesis, a moderated regression analysis (MRA) was conducted. The interaction term (IT × MS) had a t-value of 1.423 and a p-value of 0.163, which is above the threshold of 0.05. Therefore, the moderating effect of management support is not significant. Table 6 presents the full moderation regression output.

Table 6. Moderated Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	10.616	6.352		1.671	.103
Information Technology	-1.641	1.543	-1.414	-1.064	.294
XM	.575	.404	3.080	1.423	.163
Management Support	-2.264	1.670	-1.938	-1.355	.183

Source: SPSS Output, 2025

The R² for the model with moderation increased slightly to 0.283 (Adj. R² = 0.228), as shown in Table 7. However, the increase was marginal and statistically insignificant, indicating that management support did not strengthen the effect of IT utilization on performance.

Table 7. R-Square With Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.532 ^a	0.283	0.228	0.35980

Source: SPSS Output, 2025

These findings align with (Barbieri et al., 2024), who argued that technology's impact on public employee performance may be more influenced by individual competencies and system usability than by hierarchical managerial involvement. It is possible that management support at DJPb is more implicit than perceived, or that employees are already proficient in their use of systems, thus requiring less managerial reinforcement. Alternatively, the lack of significant moderation may be due to the sample size not reaching the targeted number, reducing the power to detect interaction effects. This suggests that internal motivation and habitual use of digital systems may be more influential than top-down support in this context.

CONCLUSION

This study aimed to examine the influence of information technology utilization on employee performance in a public sector institution, with management support tested as a moderating variable. Based on the results of regression analysis, it can be concluded that the utilization of information technology significantly improves employee performance at the Regional Office of the Directorate General of Treasury (DJPb) in Central Java. This finding confirms the role of digital tools such as SPAN, SAKTI, OM-SPAN, and NADINE in enhancing efficiency, accuracy, and responsiveness in administrative tasks. Employees who routinely used these systems reported better task completion, higher initiative, and improved productivity. These results support previous studies, including those by Amin et al. (2017) and Telaumbanua et al. (2024) which highlighted the strong positive relationship between IT use and job performance.

On the other hand, the study found that management support does not significantly moderate the relationship between IT utilization and performance. This means that, in the observed setting, the presence or absence of managerial involvement does not significantly strengthen or weaken the effect of technology on employee outcomes. While previous studies such as those by Jayeola et al. (2022) emphasized the importance of managerial encouragement and leadership in supporting digital adoption, this research suggests that performance improvements are likely driven more by internal employee factors such as digital literacy, autonomy, and habitual system use than by structural oversight. It is also possible that the form of support provided by management was not perceived as direct or impactful by employees, or that the support was passive rather than actively transformational.

Practically, the findings indicate that institutional strategies to enhance performance through technology should focus more on building employee competence, routine digital workflows, and integrated system usability. While managerial support remains important in principle, its influence may be limited if not accompanied by active engagement and adaptive leadership. Institutions may consider investing in ongoing training, system improvements, and feedback mechanisms to ensure that employees can continuously improve their ability to use digital platforms effectively. These approaches are likely to yield more sustainable improvements in performance compared to reliance on top-down managerial control alone.

This study also contributes to the literature on Performance Theory by providing empirical evidence that technology can function as a structural support component, but its effectiveness depends on how closely it is aligned with employee capabilities and work patterns. The non-significant role of management support in this case highlights the need to reassess how organizations conceptualize leadership in digital contexts moving beyond symbolic support toward hands-on facilitation and empowerment.

Despite its contributions, the research is not without limitations. The sample size did not meet the initial target of 68 respondents, which may have reduced the statistical power to detect moderating effects. Additionally, the research was limited to one regional office, thereby constraining the generalizability of the findings. Future studies should consider expanding the sample to multiple public institutions, incorporating qualitative methods such as interviews or focus groups to capture deeper perceptions of management involvement. Longitudinal research could also explore whether the moderating role of managerial support evolves over time as employees become more digitally mature.

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