

## Adapting the TAM 3 Framework for Mandatory Performance Reporting Systems: A Study of ASN Teachers

Moh Ali Aljauhari<sup>1</sup>, Masduki Zakarijah<sup>2</sup>

<sup>1</sup> Postgraduate Program Department of Electronics And Informatics Engineering Education, Universitas Negeri Yogyakarta (55281) , Indonesia

<sup>2</sup> Department of Electronics And Informatics Engineering Education, Universitas Negeri Yogyakarta (55281) , Indonesia

Corresponding Author: [moh521ft.2024@student.uny.ac.id](mailto:moh521ft.2024@student.uny.ac.id)

### Abstract

*Focusing on educators within the Bandung Raya area, this research identifies the primary drivers behind the adoption and practical utilization of the mandatory Tunjangan Remunerasi Kinerja (TRK) digital platform. Positioned within the gap of limited empirical studies on mandatory e-government systems in education, this research employs an adapted TAM 3 framework. A quantitative approach was used with 321 ASN teachers as respondents, and data were analyzed using PLS-SEM via SmartPLS. The results show that the model explains 65.1% of the variance in Behavioral Intention and 49.3% in Actual Use. Ten of the fifteen hypotheses were supported. Perceived Usefulness ( $\beta=0.660$ ) is the strongest predictor of intention, significantly higher than Perceived Ease of Use ( $\beta=0.197$ ). Key antecedents such as Computer Self-Efficacy, Image, and Job Relevance are significant drivers, while Subjective Norm, Output Quality, and Result Demonstrability were rejected. The study's novelty lies in proving that in mandatory contexts, users prioritize functional utility and professional image over social pressure or technical output quality. This suggests that government interventions should focus on increasing user efficacy and aligning system features with core teaching duties to ensure sustainable digital transformation.*

**Keyword:** TAM 3, Perceived Usefulness, TRK System, ASN Teachers, PLS-SEM.



## INTRODUCTION

The global trend of bureaucratic reform emphasizes digital transformation as a key pillar for modernizing public sector governance. The strategic deployment of Information Technology (IT) in public administration fundamentally aims to enhance transparency, efficiency, and accountability of the Civil Apparatus (ASN). In line with this reform agenda, the West Java Provincial Government in Indonesia implemented the Digital Performance Reporting System (DPRS), known as the Tunjangan Remunerasi Kinerja (TRK) application, to monitor and evaluate the performance of ASN, including teachers in state high schools (SMA, SMK, and SLB). Functionally, the TRK application supports critical administrative needs, such as drafting Employee Performance Targets (SKP) and submitting monthly activity reports. While internal data indicates a high utilization rate (97.3 monthly), the ultimate actual success of any system implementation is crucially dependent on the level of acceptance and proactive use by the end-users (Yanuar, 2022). In this mandatory context, ASN teachers are central to the sustained effectiveness of this digital management system.

The mandatory nature of the TRK system is legally underscored by Governor Regulation No. 68 Year 2023, which requires performance management to be fully electronic, objective, and integrated. In the Indonesian educational landscape, the pursuit of such professional standards is often influenced by organizational climate and institutional policies aimed at enhancing teacher performance (Nuswantoro et al., 2023). Despite its strategic importance to regional performance targets (RPD 2024–2026) and national digitalizing mandates (BKN, 2025), TRK adoption faces observable constraints. Field reports and interviews with the Regional Civil Service Agency (BKD) of West Java confirm that while overall compliance is relatively good, persistent challenges exist, including technical difficulties, lack of system readiness, and, notably, user-related difficulties. Anecdotal evidence suggests that the system imposes an administrative burden that disrupts teaching time (Umami Fadila, 2022) and poses significant operational difficulties for older ASN teachers (Indonews, 2022). Furthermore, previous studies on similar systems have highlighted ongoing issues such as server downtime and manipulation concerns (Azzahra & Supriatna, n.d.; Permadi Pratama & Lutfiyana, 2024). These findings collectively create a conspicuous research gap: the operational effectiveness of TRK is threatened by unaddressed user acceptance determinants, where high compliance does not necessarily equate to psychological acceptance or optimal system utilization.

To structurally analyze and empirically test the factors driving or hindering TRK acceptance, a strong theoretical foundation is indispensable. Within the literature on digital integration, the Technology Acceptance Model (TAM) is widely recognized as a robust and





foundational framework for assessing user behavior. To achieve a more granular analysis, this research utilizes the TAM 3 iteration (Venkatesh & Bala, 2008), this study leverages a robust and integrated theoretical structure developed from the earlier TAM models (Davis, 1989). The choice of TAM 3 is driven by its robust ability to integrate diverse determinants, ranging from individual competencies like Computer Self-Efficacy to operational aspects such as Job Relevance and Result Demonstrability. These dimensions are particularly vital for analyzing technology adoption within compulsory governmental environments. While modern research supports TAM 3's validity in educational and governmental settings (Antonietti et al., 2022; Ivanishchenko et al., 2024; Kong et al., 2024; Mphahlele et al., 2025; Xu & Deng, 2024), no prior empirical study has specifically examined the adoption of the TRK application by ASN teachers using the comprehensive TAM 3 framework. While previous scholarship has extensively explored voluntary systems and general e-learning tools, there remains a distinct lack of empirical evidence regarding integrated performance platforms within the compulsory administrative landscape of Indonesia's bureaucracy.

Based on the existing problem background, identified challenges, and theoretical gap (Galimova et al., 2024; Hong et al., 2021), this research focuses on analyzing the acceptance model of the TRK application by ASN teachers in the Bandung Raya region (Bandung, Cimahi, Kab. Bandung, and Kab. Bandung Barat). The study contributes unique insights by adaptively applying the TAM 3 framework to the mandated performance management system used in the public education sector. This study primarily aims to validate the causal relationships within the TAM 3 framework, particularly the core path (PEOU→PU→BI→AU) and the role of key antecedents. The findings are expected to offer dual contributions: Practically, they will guide system managers in West Java to enhance ASN performance management effectiveness. Theoretically, the study enriches the e-government and educational IT literature by validating TAM 3 in a mandatory public education environment.

## LITERATURE REVIEW

Since the inception of the Technology Acceptance Model (TAM), the theoretical landscape for understanding system adoption has undergone a major transformation. While the foundational framework by Davis (1989) centered on the dual pillars of PEOU and PU, later developments—including TAM 2 and the Unified Theory of Acceptance and Use of Technology (UTAUT)—expanded this scope to account for social and cognitive instrumental factors. This progression culminated in TAM 3, which is now recognized as the most sophisticated synthesis, offering a highly structured network of antecedents for its core constructs (Venkatesh & Bala,





2008). In the last decade, scholarly debate has shifted towards examining these models in specialized environments, such as mandatory public sector settings and digital education ecosystems (Antonietti et al., 2022; Galimova et al., 2024).

Contemporary research underscores that how educators adopt technology transcends simple technicality, emerging instead from a dynamic synergy between personal competence and institutional backing. For instance, research on generative AI and digital platforms in schools shows that Perceived Usefulness remains the dominant predictor of intention, even when technical ease is achieved (Kong et al., 2024; Xu & Deng, 2024). However, a critical gap remains in the literature regarding mandatory performance systems. Most TAM 3 applications in education focus on voluntary e-learning tools, whereas systems like TRK are tied to legal mandates and financial remuneration (PERATURAN GUBERNUR JAWA BARAT NOMOR 68 TAHUN 2023, 2023). This mandatory nature potentially alters the role of Subjective Norm and Image, as compliance is non-negotiable.

The research position of this study is situated at the intersection of e-government and educational management. By applying TAM 3 to the TRK application, this research tests the boundaries of the model within a high-stakes, mandatory Indonesian bureaucratic environment. While general e-government services have been studied (Mphahlele et al., 2025), the specific application to a teacher's performance reporting cycle—which combines pedagogical administration with civil service mandates—presents a unique theoretical context. This study specifically explores whether technical determinants like Output Quality and Result Demonstrability still influence PU in a setting where users have high experience but low voluntary choice.

## Conceptual Framework and Hypotheses

The current study adapted the comprehensive TAM 3 framework to analyze the adoption of the mandatory TRK system among ASN teachers. The model excludes the Experience and Voluntariness moderators to better fit the mandatory bureaucratic context, where usage is non-discretionary and the user base is relatively stable in terms of experience. The structural logic of TAM 3 begins with eleven specific antecedents that act as predictors for the foundational constructs, PEOU and PU. Consequently, these perceptions serve as the primary drivers for Behavioral Intention (BI), which ultimately dictates the level of Actual Use (AU). The research model outlining these hypothesized causal links is depicted in Figure 1. These pathways are formally designated as H1 to H15.



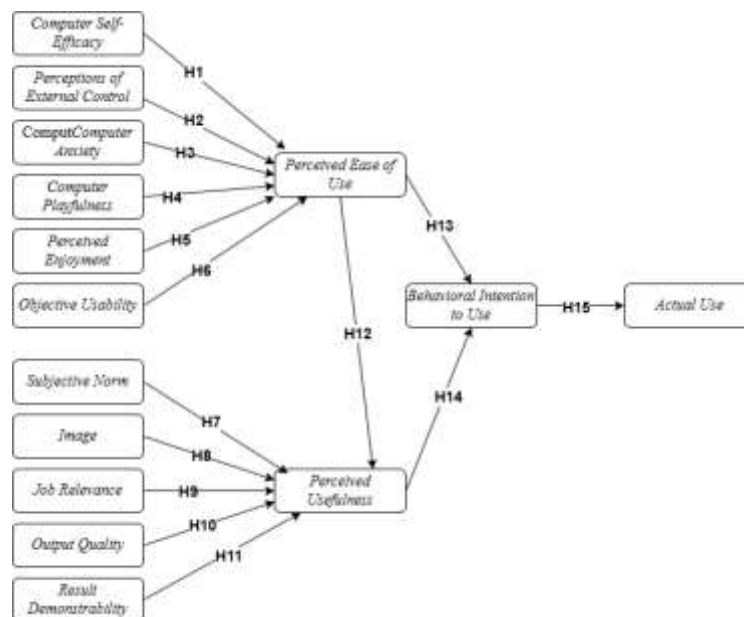


Figure 1. Conceptual framework

Based on the theoretical foundation of TAM 3 and empirical evidence from recent studies in educational technology adoption (Altowayan, n.d.; De La Mora Velasco et al., 2025; Kuo & Kuo, 2025; Venkatesh & Bala, 2008), this study proposes fifteen hypotheses to model the acceptance of the TRK performance reporting system by ASN teachers :

Table 1. Research hypothesis

| Number | Hypothesis                                                                                         |
|--------|----------------------------------------------------------------------------------------------------|
| H1     | Computer Self-Efficacy (CSE) has a significant influence on Perceived Ease of Use (PEOU).          |
| H2     | Perceptions of External Control (PEC) has a significant influence on Perceived Ease of Use (PEOU). |
| H3     | Computer Anxiety (CA) has a significant influence on Perceived Ease of Use (PEOU).                 |
| H4     | Computer Playfulness (CP) has a significant influence on Perceived Ease of Use (PEOU).             |
| H5     | Perceived Enjoyment (PE) has a significant influence on Perceived Ease of Use (PEOU).              |
| H6     | Objective Usability (OU) has a significant influence on Perceived Ease of Use (PEOU).              |
| H7     | Subjective Norm (SN) has a significant influence on Perceived Usefulness (PU).                     |
| H8     | Image (IM) has a significant influence on Perceived Usefulness (PU).                               |



|     |                                                                                       |
|-----|---------------------------------------------------------------------------------------|
| H9  | Job Relevance (JR) has a significant influence on Perceived Usefulness (PU).          |
| H10 | Output Quality (OQ) has a significant influence on Perceived Usefulness (PU).         |
| H11 | Result Demonstrability (RD) has a significant influence on Perceived Usefulness (PU). |
| H12 | Perceived Ease of Use (PEOU) positively impacts Perceived Usefulness (PU).            |
| H13 | Perceived Ease of Use (PEOU) affects Behavioral Intention (BI).                       |
| H14 | Perceived Usefulness (PU) contributes to Behavioral Intention to Use (BI).            |
| H15 | The construct Behavioral Intention (BI) determines Actual Use (AU).                   |

## METHOD

### Research Design and Approach

To investigate the causal dynamics among various latent constructs within the modified TAM 3 framework, this research adopts a quantitative explanatory design (Sugiyono, 2024). The types of research data used are primary quantitative data obtained directly from the participants. The research data sources were active ASN teachers (PNS and PPPK) serving in state high schools (SMA, SMK, and SLB) across the Bandung Raya region, West Java.

The technique for determining respondents was snowball sampling, a non-probability method chosen because the exact sampling frame of active TRK users was not centrally accessible (Sugiyono, 2024; Ting et al., 2025). This method relied on referrals from initial participants to reach a final sample of 321 respondents. The research instrument consisted of a closed-ended questionnaire with 51 items representing 15 latent constructs, measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) (Sugiyono, 2024). Data collection techniques were conducted through an online survey via Google Forms between July and August 2025.

The theoretical framework used is an adapted TAM 3, which focuses on eleven antecedents of PEOU and PU while excluding the Experience and Voluntariness moderators due to the mandatory and cross-sectional nature of the study (Venkatesh & Bala, 2008). To evaluate the intricate structural paths in this study, Partial Least Squares–Structural Equation Modeling (PLS-SEM) was executed through the SmartPLS 3 software. This specific methodology was chosen for its resilience against non-normal data distributions and its superior capability in managing multiple concurrent variable interactions (J. Hair & Alamer, 2022). Finally, data credibility was ensured through a two-stage evaluation: The evaluation of the measurement model (outer model) was conducted through a two-step verification. Initially, convergent validity was confirmed with AVE values exceeding 0.50, while the Fornell-Larcker criterion was applied to ensure discriminant validity. Subsequently, the model's internal consistency was verified,



requiring both Cronbach's Alpha and Composite Reliability to surpass the 0.70 threshold. Finally, the structural model (inner model) was assessed via bootstrapping techniques as suggested by (J. F. Hair et al., 2017, 2019).

## Population and Sampling

The target population of this study comprised all ASN teachers (PNS and PPPK) in state high schools (SMA, SMK, and SLB) across the Bandung Raya region. The study's geographical scope covers four distinct administrative zones within the Bandung Raya area: the municipalities of Bandung and Cimahi, along with the Bandung and West Bandung regencies, with a total estimated population of 6,843 ASN teachers (B. P. Disdik Jabar, 2025; D. J. Disdik Jabar, 2025). Due to the absence of a centralized and updated list of active TRK users, a snowball sampling technique was employed. This non-probability method is effective for reaching specific populations where the sampling frame is difficult to determine, relying on referrals from initial participants (Sugiyono, 2024; Ting et al., 2025).

To ensure data quality, participants were selected based on three specific benchmarks: active ASN status (PNS or PPPK), a minimum of six months of experience with the TRK platform, and a voluntary commitment to providing complete survey responses. The final dataset comprised 321 valid responses, a figure that provides sufficient statistical power for reliable parameter estimation within the PLS-SEM framework (J. Hair & Alamer, 2022).

## Research Variables and Model Adaptation

The variables in this study were designed based on the TAM 3 framework (Venkatesh & Bala, 2008), which was adapted into a TAM 3-Antecedent-Based Acceptance Model. Variables were classified into two groups based on their causal role in the PLS-SEM model (J. F. Hair et al., 2019):

- a. Exogenous Variables (Antecedents): These predictors are categorized into two primary groups within the TAM 3 framework. The first group influences ease of use, comprising Computer Self-Efficacy (CSE), Perceptions of External Control (PEC), Computer Anxiety (CA), Computer Playfulness (CP), Perceived Enjoyment (PE), and Objective Usability (OU). The second group focuses on usefulness and social influence, including Subjective Norm (SN), Image (IM), Job Relevance (JR), Output Quality (OQ), and Result Demonstrability (RD).
- b. Endogenous Variables: These are the variables determined within the model, encompassing the fundamental pillars of TAM 3. In this study, they include Perceived Ease of Use (PEOU)

and Perceived Usefulness (PU) as mediating factors, which subsequently influence Behavioral Intention (BI) and the ultimate Actual Use (AU) of the system.

The original TAM 3 framework was adapted by excluding the Experience and Voluntariness constructs. Voluntariness was excluded because TRK usage is mandatory for ASN teachers, rendering the concept of voluntary use irrelevant. Experience was excluded as the study adopted a cross-sectional design rather than a longitudinal one. This adaptive approach is consistent with prior TAM literature that modifies the framework to fit the research context (Altowayan, 2017.; Antonietti et al., 2022).

## Data Collection and Instruments

Primary data were gathered using an online closed-ended questionnaire distributed via Google Form. To measure the 15 latent constructs, a survey instrument containing 51 individual items was developed. Responses were gathered using a five-point Likert format, where a score of 1 represents 'Strongly Disagree' and 5 indicates 'Strongly Agree'. These measures were specifically tailored from the validated TAM 3 scales (Venkatesh & Bala, 2008) and other related studies, then contextually adjusted to reflect the specific usage of the TRK application by ASN teachers. To ensure the quality of the instrument, it underwent a content validity assessment by two experts specializing in Educational Technology and Evaluation. This validation process ensured: (1) the relevance of items to the TAM 3 constructs, (2) the clarity of wording for the target respondents, and (3) ensuring that the modified measurement scales remain strictly congruent with the study's foundational theoretical constructs.

## Data Analysis Technique

To examine the research model, the PLS-SEM (Partial Least Squares–Structural Equation Modeling) method was applied using SmartPLS 3. The evaluation followed a rigorous dual-phase process aimed at maximizing the validity and stability of the empirical results. main stages:

- a. The first stage involved the Evaluation of the Measurement Model (Outer Model) to verify the validity and reliability of the constructs. The reliability of the measurement model was established by ensuring that both Cronbach's Alpha and Composite Reliability (CR) reached the standard benchmark of at least 0.70. To verify convergent validity, we confirmed that AVE values exceeded 0.50 and outer loadings were 0.70 or higher. Additionally, the statistical uniqueness of each construct was validated through discriminant validity testing using the Fornell-Larcker method.



- b. The second stage consisted of the Evaluation of the Structural Model (Inner Model) to test the hypothesized causal relationships. This assessment included analyzing the Path Coefficients ( $\beta$ ) to determine the direction and strength of the relationships. The significance of these hypotheses was evaluated using a bootstrapping procedure with 5,000 subsamples to obtain t-statistics and p-values. The explanatory strength and predictive accuracy of the structural framework were evaluated by examining the  $R^2$  (Coefficient of Determination) and  $Q^2$  (Predictive Relevance) statistics. This assessment follows the rigorous methodological guidelines established by J. F. Hair et al. (2017).

## RESULTS AND DISCUSSION

### Sample Demographics

A total of 321 valid survey completions were secured from ASN educators stationed throughout the Bandung Raya area. The demographic distribution was characterized by a near-equal ratio of male (49.8%) and female (50.2%) respondents. Regarding employment status, the majority of the sample were contract-based government employees (PPPK, 68.8%), while permanent civil servants (PNS) constituted 31.2%.

The sample's maturity and professional experience emerge as significant factors in this model. Approximately 79% of the participants are positioned within the 31-to-50-year age bracket, representing a highly productive cohort of educators. More significantly, a dominant 70.7% reported using the TRK application for more than 24 months, indicating a deep understanding and established experience with the system. Conversely, the high adoption rate appears to be largely organic, as 67.9% of respondents stated they never received formal training or technical guidance (Diklat/Bimtek) for the TRK application. Access to the system was almost evenly split between Smartphone (54.5%) and Laptop (44.9%).

## RESULTS

### Measurement Model Evaluation (Outer Model)

The measurement model was evaluated based on reliability and convergent validity criteria. Initial testing revealed that indicators RD4 and SN3 did not meet the required loading thresholds; consequently, these two indicators were eliminated to optimize the model's construct validity. Following this adjustment, all fifteen latent constructs were retained for the final structural analysis.

The final measurement model demonstrated robust psychometric properties, as detailed in Table 3. Every construct in the model demonstrated strong internal consistency, with CR



scores falling between 0.826 and 0.975, well above the 0.70 benchmark. Furthermore, convergent validity was confirmed as AVE values ranged from 0.583 to 0.925, comfortably surpassing the minimum requirement of 0.50. Although the Cronbach's Alpha for Objective Usability (0.643) and Subjective Norm (0.590) were below 0.70, these constructs were deemed reliable and valid based on their strong CR and AVE scores, which are considered more accurate measures of internal consistency in PLS-SEM (J. F. Hair et al., 2019).

**Table 2. Measurement Model Quality Criteria**

| No. | Construct                       | Cronbach's Alpha | rho_A | Composite Reliability | AVE   |
|-----|---------------------------------|------------------|-------|-----------------------|-------|
| 1.  | Actual Use                      | 0.821            | 0.843 | 0.874                 | 0.583 |
| 2.  | Behavioral Intention to Use     | 0.940            | 0.941 | 0.962                 | 0.894 |
| 3.  | Computer Anxiety                | 0.870            | 0.982 | 0.917                 | 0.787 |
| 4.  | Computer Playfulness            | 0.914            | 0.914 | 0.959                 | 0.921 |
| 5.  | Computer Self Efficacy          | 0.826            | 0.830 | 0.896                 | 0.741 |
| 6.  | Image                           | 0.904            | 0.919 | 0.939                 | 0.838 |
| 7.  | Job Relevance                   | 0.927            | 0.943 | 0.954                 | 0.873 |
| 8.  | Objective Usability             | 0.643            | 0.771 | 0.840                 | 0.726 |
| 9.  | Output Quality                  | 0.865            | 0.866 | 0.918                 | 0.788 |
| 10. | Perceived Ease of Use           | 0.865            | 0.874 | 0.909                 | 0.715 |
| 11. | Perceived Enjoyment             | 0.959            | 0.960 | 0.974                 | 0.925 |
| 12. | Perceived Usefulness            | 0.969            | 0.969 | 0.975                 | 0.865 |
| 13. | Perceptions of External Control | 0.843            | 0.852 | 0.894                 | 0.680 |
| 14. | Result Demonstrability          | 0.900            | 0.902 | 0.938                 | 0.834 |
| 15. | Subjective Norm                 | 0.590            | 0.633 | 0.826                 | 0.705 |

To ensure that each latent variable represents a unique concept, discriminant validity was verified using the Fornell-Larcker method (J. F. Hair et al., 2017). The results indicated that for every construct, the square root of the AVE consistently surpassed its maximum correlation with any other factor in the model. This outcome confirms the empirical distinctiveness of the variables within this adapted TAM 3 framework (J. F. Hair et al., 2019).

### Structural Model Evaluation (Inner Model)

#### Predictive Power ( $R^2$ and $Q^2$ )

The integrity of the structural model was evaluated by examining the  $R^2$  (Coefficient of Determination) and  $Q^2$  (Predictive Relevance). These parameters serve to quantify the degree of variance accounted for by the predictors and the prognostic accuracy of the framework regarding the endogenous variables.

**Table 3. Coefficient of Determination ( $R^2$ ) and Predictive Relevance ( $Q^2$ )**

| Endogenous Construct             | $R^2$ Value | Adjusted $R^2$ | $Q^2$ Value | Interpretation ( $R^2$ ) |
|----------------------------------|-------------|----------------|-------------|--------------------------|
| Perceived Ease of Use (PEOU)     | 0,667       | 0,661          | 0,467       | Moderate to Strong       |
| Perceived Usefulness (PU)        | 0,664       | 0,658          | 0,569       | Moderate to Strong       |
| Behavioral Intention to Use (BI) | 0,649       | 0,646          | 0,572       | Moderate to Strong       |
| Actual Use (AU)                  | 0,493       | 0,491          | 0,268       | Moderate                 |

The structural analysis reveals that  $R^2$  values for PEOU, PU, and BI hover near the substantial benchmark of 0.67. This suggests that the chosen antecedents account for a significant portion of the variance in these three constructs (J. F. Hair et al., 2019). Meanwhile, the  $R^2$  for Actual Use (0.493) is situated within the moderate range. Regarding predictive power, all  $Q^2$  scores are consistently positive and well above the zero mark, validating the model's strong predictive utility for the empirical data (J. F. Hair et al., 2017).

### Hypothesis Testing

The significance of the hypothesized relationships was evaluated using the bootstrapping procedure with 5,000 subsamples. The results of the path analysis, including path coefficients

( $\beta$ ), T-statistics, and P-values, are summarized in Table 4.

**Table 4. Structural Model Results and Hypothesis Testing**

| Hypothesis | Path     | O ( $\beta$ ) | t-Statistics | p-Value | Result        |
|------------|----------|---------------|--------------|---------|---------------|
| H1         | CSE→PEOU | 0.362         | 7.161        | 0.000   | Supported     |
| H2         | PEC→PEOU | 0.282         | 4.092        | 0.000   | Supported     |
| H3         | CA→PEOU  | -0.092        | 3.307        | 0.001   | Supported     |
| H4         | CP→PEOU  | 0.064         | 1.093        | 0.278   | Not Supported |
| H5         | PE→PEOU  | 0.155         | 2.188        | 0.029   | Supported     |
| H6         | OU→PEOU  | 0.079         | 1.165        | 0.244   | Not Supported |
| H7         | SN→PU    | -0.049        | 1.150        | 0.250   | Not Supported |
| H8         | Image→PU | 0.295         | 5.062        | 0.000   | Supported     |
| H9         | JR→PU    | 0.191         | 2.364        | 0.018   | Supported     |
| H10        | OQ→PU    | 0.090         | 1.020        | 0.308   | Not Supported |
| H11        | RD→PU    | 0.121         | 1.525        | 0.127   | Not Supported |
| H12        | PEOU→PU  | 0.251         | 3.417        | 0.001   | Supported     |
| H13        | PEOU→BI  | 0.197         | 2.845        | 0.004   | Supported     |
| H14        | PU→BI    | 0.660         | 12.204       | 0.000   | Supported     |
| H15        | BI→AU    | 0.702         | 16.864       | 0.000   | Supported     |

Out of the 15 hypotheses tested, 10 were supported and 5 were not supported. Notably, all core relationships within the TAM model (H12, H13, H14, and H15) were found to be significant at  $P < 0.01$ . In predicting Behavioral Intention, Perceived Usefulness ( $\beta = 0.660$ ) emerged as a more dominant driver compared to Perceived Ease of Use ( $\beta = 0.197$ ). Furthermore, the results for H3 reveal that Computer Anxiety exerts a detrimental effect on PEOU ( $\beta = -0.092$ ).

## DISCUSSION

### Core TAM Relationship Validation

The empirical results provide robust support for the foundational TAM architecture when applied to the mandatory TRK environment. Every hypothesized structural linkage—specifically the paths from PEOU to PU (H12), PEOU to BI (H13), PU to BI (H14), and BI to AU (H15)—demonstrated high statistical significance. Notably, Perceived Usefulness emerged as the primary catalyst for Behavioral Intention ( $\beta = 0.660$ ), exerting a substantially greater impact than



Perceived Ease of Use ( $\beta = 0.197$ ). This is consistent with classic TAM literature (Davis, 1989) and extended models in mandatory settings (Venkatesh & Bala, 2008). It confirms that for ASN teachers, the functional benefits of performance recording and remuneration eligibility are paramount compared to the mere ease of system operation.

### **Determinants of Perceived Ease of Use (PEOU)**

Four out of six antecedents significantly predicted PEOU. Computer Self-Efficacy (CSE) ( $\beta = 0.362$ ) and Perceptions of External Control (PEC) ( $\beta = 0.282$ ) emerged as the strongest predictors. The significance of CSE suggests that internal confidence in technology is the most crucial cognitive factor in perceiving TRK as user-friendly. Meanwhile, PEC implies that institutional resources and technical support are primary external drivers of perceived ease. This finding resonates with qualitative evidence in this journal which highlights that a supportive organizational climate and clear institutional policies are fundamental to enhancing teacher professionalism (Nuswantoro et al., 2023).

Interestingly, Computer Anxiety (CA) was supported with a significant negative relationship ( $\beta = -0.092$ ), while Perceived Enjoyment (PE) also showed a positive significant effect ( $\beta = 0.155$ ). This confirms that reducing anxiety and increasing the pleasantness of the interface can improve adoption. In contrast, the hypotheses for Computer Playfulness (CP) and Objective Usability (OU) failed to reach statistical significance. This implies a pragmatic orientation among ASN teachers, where the urgency of fulfilling administrative duties far outweighs the desire for system enjoyment or high-end technical sophistication.

### **Determinants of Perceived Usefulness (PU)**

Only two out of five tested antecedents were supported for PU: Image (H8) ( $\beta = 0.295$ ) and Job Relevance (H9) ( $\beta = 0.191$ ). The strength of Image confirms that using TRK is associated with improved professional status within the bureaucratic system. Job Relevance confirms that a clear alignment between TRK tasks and teaching duties enhances its perceived value.

A notable departure from typical TAM 3 results is the lack of statistical support for Subjective Norm (SN) (H7), as well as the output-related factors of Output Quality (OQ) (H10) and Result Demonstrability (RD) (H11). These non-significant paths offer a distinctive insight into the specific behavior of the users in this study. Despite the mandatory nature of the system, social pressure (SN) does not directly translate into perceived usefulness. Furthermore, the rejection of OQ and RD suggests that teachers prioritize functional compliance and professional image over the actual quality or visibility of the generated reports.





## Implications for Theory and Practice

The non-significance of Subjective Norm (H7) in the structural model, despite the system being mandatory, is a noteworthy theoretical finding. It implies that while compliance is required, the internal perception of the system's "usefulness" is driven by individualized cognitive factors and career benefits rather than social influence. Practically, the results suggest that to increase TRK adoption, the government should: (1) Strengthen CSE by providing targeted, hands-on training to reduce Computer Anxiety, especially for senior staff, and (2) Enhance PEC through more responsive technical support, ensuring that the system is perceived as a tool that supports, rather than hinders, their primary teaching duties.

## CONCLUSION

This study aimed to investigate the factors influencing the adoption of the mandatory Tunjangan Remunerasi Kinerja (TRK) application by ASN teachers in the Bandung Raya region, utilizing an adapted Technology Acceptance Model 3 (TAM 3) framework. Data from 321 active ASN teachers were analyzed using PLS-SEM. The findings strongly validate the core TAM structure, confirming that Behavioral Intention (BI) is the most significant predictor of Actual Use (AU) ( $\beta = 0.702$ ) and that Perceived Usefulness (PU) dominates BI ( $\beta = 0.660$ ) over Perceived Ease of Use (PEOU) ( $\beta = 0.197$ ). This highlights that perceived job-related benefits and functional utility are paramount in the adoption of this mandated system. Regarding PEOU antecedents, Computer Self-Efficacy (CSE) ( $\beta = 0.362$ ) and Perceptions of External Control (PEC) ( $\beta = 0.282$ ) were the strongest drivers, suggesting that internal user confidence and external institutional support are key to system acceptance. For PU antecedents, only Image and Job Relevance were supported. A major theoretical finding is the non-significance of key information quality factors—namely Output Quality (OQ) and Result Demonstrability (RD)—as predictors of PU. This anomaly, combined with the lack of significant influence from Subjective Norm (SN), implies that in the context of mandatory government systems used by experienced users (where over 70% have used the system for more than 2 years), the adoption mechanism is primarily driven by compliance, perceived professional status (Image), and functional utility, rather than external social pressure or the quality/visibility of the generated performance reports.

## Limitations and Future Research

Despite its contributions, this study is subject to several limitations. First, the use of a cross-sectional design captures user perceptions only at a single point in time, thereby limiting the ability to observe the evolution of user acceptance or the dynamic impact of the Experience





variable over a longer duration. Future research should consider adopting a longitudinal approach to track shifts in teacher perceptions as the TRK system matures. Furthermore, given that the paths associated with system output metrics—namely OQ and RD—remained unsupported, subsequent research is encouraged to investigate these empirical contradictions more deeply. Understanding why these informational attributes failed to influence teachers' perceptions will be crucial for future model refinements. Incorporating qualitative methods, such as semi-structured interviews or focus group discussions, could provide deeper insights into why ASN teachers do not prioritize the technical quality or visibility of the TRK output as a primary determinant of its usefulness. Finally, expanding the scope of the study to include other regions beyond Bandung Raya or different types of government applications could enhance the generalizability of the findings within the broader civil service context.

## REFERENCE

- Altowayan, A. (n.d.). The Applicability of Technology Acceptance Model 3 in an Education Management Information System in the Kingdom of Saudi Arabia. 2017.
- Antonietti, C., Cattaneo, A., & Amenduni, F. (2022). Can teachers' digital competence influence technology acceptance in vocational education? *Computers in Human Behavior*, 132, 107266. <https://doi.org/10.1016/j.chb.2022.107266>
- Azzahra, A., & Supriatna, M. D. (n.d.). Penilaian Kinerja Pegawai Pada Badan Kepegawaian Daerah Provinsi Jawa Barat. 2022, Vol 6, No 1. <https://knia.stialanbandung.ac.id/index.php/knia/article/view/714>
- BKN, B. (2025). LAPORAN KINERJA BKN TAHUN 2024. Badan Kepegawaian Negara Republik Indonesia.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- De La Mora Velasco, E., Miller, R., Williams, F., & DeNoyelles, A. (2025). Applying the TAM Framework to Inform Faculty Participation in Course Quality Reviews. *Online Learning*, 29(3). <https://doi.org/10.24059/olj.v29i3.5079>
- Disdik Jabar, B. P. (2025). Data Penyaluran Gaji dan Tunjangan ASN, Juni 2025. Dinas Pendidikan Provinsi Jawa Barat.
- Disdik Jabar, D. J. (2025). Data Statistik Tahun Ajaran 2024/2025. Dinas Pendidikan Provinsi Jawa Barat. [https://sync-disdik.jabarprov.go.id/statistik\\_20242025/index.php?pages=Guru\\_StatKep](https://sync-disdik.jabarprov.go.id/statistik_20242025/index.php?pages=Guru_StatKep)





- Galimova, E. G., Oborsky, A. Yu., Khvatova, M. A., Astakhov, D. V., Orlova, E. V., & Andryushchenko, I. S. (2024). Mapping the interconnections: A systematic review and network analysis of factors influencing teachers' technology acceptance. *Frontiers in Education*, 9, 1436724. <https://doi.org/10.3389/feduc.2024.1436724>
- Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027. <https://doi.org/10.1016/j.rmal.2022.100027>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (Second edition). SAGE.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hong, X., Zhang, M., & Liu, Q. (2021). Preschool Teachers' Technology Acceptance During the COVID-19: An Adapted Technology Acceptance Model. *Frontiers in Psychology*, 12, 691492. <https://doi.org/10.3389/fpsyg.2021.691492>
- Indonews, M. (2022, November 13). Guru ASN Jabar Terbebani Kewajiban Upload Aplikasi Tugas Utama Mendidik. *Media Indo News*. <https://media-indonews.com/guru-asn-jabar-terbebani-kewajiban-upload-aplikasi-tugas-utama-mendidik/>
- Ivanishchenko, K., Busana, G., & Reuter, R. A. P. (2024). Understanding factors affecting fundamental school teachers' use of technology in Luxembourg through a survey study. *Heliyon*, 10(7), e28704. <https://doi.org/10.1016/j.heliyon.2024.e28704>
- Kong, S. C., Yang, Y., & Hou, C. (2024). Examining teachers' behavioural intention of using generative artificial intelligence tools for teaching and learning based on the extended technology acceptance model. *Computers and Education: Artificial Intelligence*, 7, 100328. <https://doi.org/10.1016/j.caeai.2024.100328>
- Kuo, Y.-C., & Kuo, Y.-T. (2025). An Exploratory Study of K-12 Teachers' Perceptions of Adopting Open Educational Resources in Teaching. *Education Sciences*, 15(4), 468. <https://doi.org/10.3390/educsci15040468>
- Mphahlele, N. S., Kekwaletswe, R. M., & Seaba, T. R. (2025). Model to explain use of E-Government service change. *Telematics and Informatics Reports*, 17, 100190. <https://doi.org/10.1016/j.teler.2025.100190>





- Nuswantoro, P., Iqbal, M., Marsinah, M., Rahmi, E., & Purwanto, M. B. (2023). School Principal Leadership Style In Improving Teacher Professionalism. 2023, 01(02), 19–27. <https://doi.org/10.63922/ijeter.v1i02.305>
- PERATURAN GUBERNUR JAWA BARAT NOMOR 68 TAHUN 2023, 68 (2023). <https://sidebar.jabarprov.go.id/v/13B14067AE>
- Permadi Pratama, G., & Lutfiyana, N. (2024). ANALISIS PENGGUNAAN APLIKASI K-MOB TERHADAP KINERJA ASN DI SMAN 1 CIKARANG SELATAN. INFORMATION SYSTEM FOR EDUCATORS AND PROFESSIONALS: Journal of Information System, 9(1), 97. <https://doi.org/10.51211/isbi.v9i1.2818>
- Sugiyono, Prof. Dr. (2024). Metode Penelitian Kuantitatif, Kualitatif, dan R&D (Kedua). Alfabeta.
- Ting, H., Memon, M. A., Thurasamy, R., & Cheah, J.-H. (2025). Snowball Sampling: A Review and Guidelines for Survey Research. Asian Journal of Business Research, 15(1), 1–15. <https://doi.org/10.14707/ajbr.250186>
- Umami Fadila, R. (2022, November 15). Guru di Jabar Tak Fokus Mengajar, Terbelit Mengisi Aplikasi dan Berfoto Sumber Artikel berjudul " Guru di Jabar Tak Fokus Mengajar, Terbelit Mengisi Aplikasi dan Berfoto ". Pikiran Rakyat. <https://www.pikiran-rakyat.com/jawa-barat/pr-015839799/guru-di-jabar-tak-fokus-mengajar-terbelit-mengisi-aplikasi-dan-berfoto?page=all>
- Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. Decision Sciences, 39(2), 273–315. <https://doi.org/10.1111/j.1540-5915.2008.00192.x>
- Xu, J., & Deng, Q. (2024). Exploring Chinese Secondary School Students' Acceptance of Live Video-Streamed Teaching Platforms in EFL Class: An Application of the Technology Acceptance Model. Behavioral Sciences, 14(7), 593. <https://doi.org/10.3390/bs14070593>
- Yanuar, Y. (2022). Implementasi Manajemen Kinerja di Lingkungan Pemerintah Provinsi Jawa Barat.

