

# THE EFFECT OF ONLINE-BASED TRAINING AND ORGANIZATIONAL SUPPORT ON COMPETENCY DEVELOPMENT OF STATE CIVIL APPARATUS (ASN) AT THE REGIONAL REVENUE AGENCY OF RIAU ISLANDS PROVINCE

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## Abstract

This study examines the effect of online-based training and organizational support on the competency development of State Civil Apparatus (ASN) at the Regional Revenue Agency (Badan Pendapatan Daerah) of Riau Islands Province. The rapid digital transformation in Indonesian public administration necessitates empirical evidence on how e-learning modalities and institutional support mechanisms contribute to building civil servant competencies. Employing a quantitative research design with a cross-sectional survey approach, this study collected primary data from 86 ASN respondents using proportional stratified random sampling. Data were analyzed using multiple linear regression through SPSS version 26. The findings reveal that online-based training ( $X_1$ ) has a positive and significant effect on competency development ( $Y$ ) with a regression coefficient of  $\beta = 0.412$  ( $t = 4.237$ ,  $p < 0.01$ ), and organizational support ( $X_2$ ) also demonstrates a positive and significant effect with  $\beta = 0.389$  ( $t = 3.985$ ,  $p < 0.01$ ). Simultaneously, both variables significantly influence competency development ( $F = 38.741$ ,  $p < 0.01$ ) with an adjusted  $R^2$  of 0.478, explaining 47.8% of the variance. These results confirm that strategic investment in digital learning platforms combined with robust organizational support systems is essential for enhancing ASN competencies in regional government agencies. The study contributes to public administration literature by providing empirical evidence from an archipelagic province context, offering practical implications for human resource development policy in Indonesian local governments.

**Keywords:** *Online-Based Training, Organizational Support, Competency Development, State Civil Apparatus, Regional Revenue Agency*

## 1. INTRODUCTION

The rapid advancement of information technology has fundamentally transformed the landscape of public administration in Indonesia, creating both challenges and opportunities for the development of State Civil Apparatus (Aparatur Sipil Negara/ASN) competencies. The enactment of Law Number 5 of 2014 concerning State Civil Apparatus, subsequently amended by Law Number 20 of 2023, mandates that every civil servant has both the right and the obligation to participate in competency development activities for a minimum of 20 hours of training per year (Khairani & Hasan, 2023). This regulatory framework underscores the importance of continuous professional development in ensuring that public servants possess the requisite knowledge, skills, and attitudes to deliver quality public services.

The paradigm shift from conventional classroom-based training to online-based learning modalities has accelerated significantly, particularly in the aftermath of the COVID-19 pandemic. E-learning systems are increasingly adopted by public sector organizations as strategic tools for enhancing employee competencies while addressing geographical and logistical constraints (Karakose et al., 2021). In Indonesia, the adoption of the ASN Corporate University (CorpU) model represents a fundamental shift in how civil servant training is conceptualized and delivered, moving from isolated training events toward an integrated, technology-enabled learning ecosystem (Lukito & Haryono, 2020). This transformation is particularly critical for regional government agencies operating in archipelagic provinces where physical access to training facilities is inherently constrained. The Regional Revenue Agency (Badan Pendapatan Daerah) of Riau Islands Province occupies a strategic position as the

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primary revenue-generating institution for the provincial government. As an organization responsible for the administration and collection of regional taxes, including vehicle taxes and transfer of ownership fees, the agency requires highly competent personnel who can operate sophisticated digital systems, engage with diverse taxpayer communities, and adapt to evolving fiscal regulations (Sugiono *et al.*, 2021). The Riau Islands Province, comprising over 2,408 islands with only 343 inhabited, presents a unique geographical challenge that makes online-based training not merely a preference but a necessity for competency development.

Organizational support, as conceptualized through Perceived Organizational Support (POS) theory (Eisenberger *et al.*, 1986), plays a critical mediating role in the relationship between training delivery and actual competency enhancement. Research has consistently demonstrated that employees who perceive their organizations as supportive of their professional development exhibit greater motivation to learn, higher rates of training transfer, and stronger commitment to applying newly acquired competencies in their work (Govaerts *et al.*, 2018; Mylona & Mihail, 2020). In the context of ASN development, organizational support encompasses the provision of adequate technological infrastructure, allocation of dedicated learning time, supervisory encouragement, and institutional recognition of competency achievements.

Despite the growing emphasis on digital learning modalities in Indonesian civil service reform, empirical evidence examining the combined effects of online-based training and organizational support on ASN competency development at the regional level remains limited. Previous studies have largely focused on either training effectiveness in isolation (Tamsah *et al.*, 2020) or organizational factors without integrating both dimensions within a single analytical framework (Wahyudi, 2021). Furthermore, research specifically addressing the unique challenges of competency development in archipelagic provinces is notably scarce. This study therefore aims to fill this gap by examining three research questions: (1) Does online-based training significantly affect competency development of ASN at the Regional Revenue Agency of Riau Islands Province? (2) Does organizational support significantly affect competency development of ASN? (3) Do online-based training and organizational support simultaneously affect competency development of ASN?

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1 Online-Based Training in the Public Sector

Online-based training, also referred to as e-learning or electronic training, constitutes a systematic approach to employee development that leverages digital technologies and internet-based platforms to deliver instructional content, facilitate knowledge acquisition, and develop professional competencies (Karakose *et al.*, 2021). Within the public sector context, e-learning has evolved from a supplementary training modality to a mainstream strategy for civil service development, driven by the dual imperatives of cost efficiency and scalability (Altwijri, 2022). The effectiveness of organizational e-learning has been conceptualized through multiple dimensions, including content quality, instructor competence, learner engagement, organizational alignment, assessment mechanisms, and technical system reliability (Ghazizadeh *et al.*, 2024).

Human Capital Theory, originally advanced by Becker (1964) and subsequently refined by numerous scholars, provides the theoretical foundation for understanding how investments in training translate into enhanced employee productivity and organizational performance. The theory posits that expenditures on training and development constitute investments in human capital that yield returns through improved worker capabilities, higher productivity, and enhanced organizational outcomes (Garavan *et al.*, 2020). In the public sector, this theoretical lens has been applied to explain how systematic training programs enhance civil servants' capacity to deliver effective public services (Nassary, 2020).

Empirical evidence from various country contexts supports the positive relationship between training and employee competency development. A study on civil servants at the Kenya School of Government found that effective training positively influences both individual performance and the quality of public service delivery through improved knowledge, skills, and abilities (Ameen & Baharom, 2019). Similarly, research in the Indonesian context demonstrated that innovative training programs incorporating technology-driven learning approaches significantly improved digital literacy and leadership competencies among civil servants in Makassar City, with 83% of participants reporting enhanced competencies following program participation (Muttaqin *et al.*, 2025). These findings underscore the potential of technology-enhanced training to bridge competency gaps in public sector organizations.

## 2.2 Organizational Support and Competency Development

Organizational Support Theory (OST), grounded in the seminal work of Eisenberger et al. (1986), provides a comprehensive framework for understanding how employee perceptions of organizational valuation influence their attitudes, behaviors, and developmental outcomes. Perceived Organizational Support (POS) refers to the degree to which employees believe that their organization values their contributions and cares about their well-being (Kurtessis et al., 2017). The theory operates through the norm of reciprocity, wherein employees who perceive high organizational support develop a felt obligation to help the organization achieve its objectives, leading to enhanced engagement, commitment, and developmental behaviors.

In the context of competency development, organizational support manifests through multiple channels: the provision of adequate learning resources and technological infrastructure; the allocation of dedicated time for professional development activities; supervisory encouragement and mentoring support; opportunities for the application of newly acquired skills; and formal recognition of competency achievements (Govaerts et al., 2018). Research has demonstrated that specific types of supervisory support, including instrumental, emotional, and informational assistance, significantly influence the transfer of training by enhancing training retention and motivating employees to apply their learning in the workplace (Mohamad et al., 2023).

The relationship between POS and employee developmental outcomes has been extensively documented across various organizational contexts. Mylona and Mihail (2020) found that perceived organizational support significantly enhances public employees' motivation to learn and develop, even during turbulent organizational periods. Furthermore, Martini et al. (2020) demonstrated that organizational support for competency development positively influences employee performance through the mediating mechanism of work commitment. These findings collectively suggest that organizations seeking to enhance employee competencies must create supportive environments that facilitate learning, encourage skill application, and recognize professional growth achievements.

## 2.3 Competency Development of State Civil Apparatus

Competency development in the Indonesian civil service framework is anchored in the conceptualization of competency as an integrated constellation of knowledge, skills, and attitudes that enable employees to perform their assigned roles effectively (Spencer & Spencer, 1993). Government Regulation Number 11 of 2017 concerning Civil Service Management delineates three competency dimensions for ASN: technical competency, referring to domain-specific knowledge and skills required for particular positions; managerial competency, encompassing leadership, decision-making, and organizational management capabilities; and socio-cultural competency, addressing interpersonal skills, cross-cultural communication, and public service orientation (Khairani & Hasan, 2023).

The National Civil Service Agency (BKN) has developed a Professionalism Index that assesses civil service units based on four components: qualification (25%), competence (40%), discipline, and performance (Asian Development Bank, 2021). Notably, the competence dimension, which is weighted most heavily, is assessed through the completion of additional training and professional development activities. This measurement framework underscores the instrumental role of training in building ASN competencies. However, research indicates that the implementation of competency development programs varies significantly across regions, with provincial and district-level civil servants generally demonstrating lower professionalism scores compared to their central government counterparts (Sumanti, 2018).

## 2.4 Conceptual Framework and Hypotheses

Based on the theoretical and empirical foundations discussed above, this study proposes an integrative conceptual framework that examines the direct effects of online-based training and organizational support on ASN competency development. The framework synthesizes Human Capital Theory and Organizational Support Theory to explain how the combination of systematic digital training delivery and supportive organizational environments contributes to competency enhancement. The following hypotheses are formulated:

**H<sub>1</sub>:** Online-based training has a positive and significant effect on the competency development of ASN at the Regional Revenue Agency of Riau Islands Province.

**H<sub>2</sub>:** Organizational support has a positive and significant effect on the competency development of ASN at the Regional Revenue Agency of Riau Islands Province.

**H<sub>3</sub>:** Online-based training and organizational support simultaneously have a positive and significant effect on the competency development of ASN at the Regional Revenue Agency of Riau Islands Province.

### **3. RESEARCH METHODS**

#### **3.1 Research Design and Population**

This study employs a quantitative research design with a cross-sectional survey approach to examine the causal relationships between online-based training, organizational support, and competency development. The research population consists of all civil servants (ASN) at the Regional Revenue Agency (Badan Pendapatan Daerah) of Riau Islands Province, totaling 110 employees spread across the central office in Tanjungpinang and branch offices (Unit Pelaksana Teknis/UPT) located in Batam, Karimun, Bintan, Lingga, Natuna, and Anambas. The sample size was determined using the Slovin formula with a 5% margin of error, yielding a minimum sample of 86 respondents. Proportional stratified random sampling was employed to ensure adequate representation across organizational units and hierarchical levels.

#### **3.2 Measurement Instruments**

Data were collected using a structured questionnaire with a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The instrument comprises three constructs: Online-Based Training ( $X_1$ ) measured through 12 items adapted from Kirkpatrick and Kirkpatrick (2006) and Ghazizadeh *et al.* (2024), encompassing content quality, system accessibility, learning interaction, and learning outcomes; Organizational Support ( $X_2$ ) measured through 10 items adapted from Eisenberger *et al.* (1986) and Kurtessis *et al.* (2017), covering resource provision, supervisory support, training opportunity access, and recognition mechanisms; and Competency Development ( $Y$ ) measured through 14 items based on the ASN competency framework (Government Regulation No. 11/2017), addressing technical, managerial, and socio-cultural competency dimensions.

#### **3.3 Validity and Reliability Testing**

Instrument validity was assessed through corrected item-total correlation analysis, with items retained only if their correlation coefficient exceeded the critical value of  $r$ -table (0.212 for  $n = 86$  at  $\alpha = 0.05$ ). All items demonstrated satisfactory validity with correlation coefficients ranging from 0.324 to 0.781. Reliability was evaluated using Cronbach's Alpha, with results indicating high internal consistency across all constructs: Online-Based Training ( $\alpha = 0.891$ ), Organizational Support ( $\alpha = 0.874$ ), and Competency Development ( $\alpha = 0.908$ ). These values exceed the conventional threshold of 0.70, confirming the reliability of the measurement instruments (Hair *et al.*, 2019).

#### **3.4 Data Analysis Techniques**

Data were analyzed using multiple linear regression analysis through SPSS version 26. Prior to regression analysis, classical assumption tests were conducted, including the Kolmogorov-Smirnov normality test, Variance Inflation Factor (VIF) multicollinearity test, and Glejser heteroscedasticity test. Hypothesis testing was performed through: (1) partial  $t$ -tests to examine the individual effects of each independent variable on the dependent variable; (2) the simultaneous  $F$ -test to examine the combined effect of both independent variables; and (3) the coefficient of determination (adjusted  $R^2$ ) to assess the proportion of variance in competency development explained by the independent variables.

## **4. RESULTS AND DISCUSSION**

### **4.1 Respondent Demographics**

The demographic profile of the 86 respondents reveals the following characteristics: by gender, 52 respondents (60.5%) are male and 34 (39.5%) are female; by age group, 8 respondents (9.3%) are under 30 years, 31 (36.0%) are aged 31–40, 33 (38.4%) are aged 41–50, and 14 (16.3%) are above 50 years; by educational attainment, 7 respondents (8.1%) hold diploma qualifications, 58 (67.4%) hold bachelor's degrees (S1), and 21 (24.4%) hold master's or doctoral degrees (S2/S3); and by tenure, 12 respondents (14.0%) have served for less than 5 years, 28 (32.6%) for 5–10 years, 30 (34.9%) for 11–20 years, and 16 (18.6%) for more than 20 years.

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**4.2 Descriptive Statistics**

**Table 1.** Descriptive Statistics of Research Variables

| Variable                                 | N  | Min  | Max  | Mean | SD    |
|--|----|------|------|------|-------|
| Online-Based Training (X <sub>1</sub> )  | 86 | 2.17 | 4.83 | 3.81 | 0.564 |
| Organizational Support (X <sub>2</sub> ) | 86 | 2.30 | 4.90 | 3.67 | 0.598 |
| Competency Development (Y)               | 86 | 2.43 | 4.93 | 3.74 | 0.612 |

Source: Primary data processed, 2025

The descriptive statistics presented in Table 1 indicate that the mean scores for all three variables fall within the high category (3.41–4.20 on a five-point scale). Online-Based Training (X<sub>1</sub>) exhibits the highest mean score (M = 3.81, SD = 0.564), suggesting that respondents generally perceive the online training programs as effective and well-structured. Organizational Support (X<sub>2</sub>) demonstrates a moderately high mean (M = 3.67, SD = 0.598), indicating that while organizational support is present, there is room for improvement. Competency Development (Y) shows a mean of 3.74 (SD = 0.612), reflecting a generally positive trajectory in competency enhancement among ASN at the institution.

**4.3 Classical Assumption Tests**

Prior to conducting multiple linear regression analysis, a series of classical assumption tests were performed to ensure the validity and reliability of the regression model. These tests include the normality test, multicollinearity test, heteroscedasticity test, and linearity test. The results of each test are presented below.

**4.3.1 Normality Test**

The normality of the regression residuals was assessed using the Kolmogorov-Smirnov One-Sample Test. This test evaluates whether the standardized residual values follow a normal distribution. The results are presented in Table 2.

**Table 2.** One-Sample Kolmogorov-Smirnov Normality Test Results

| Parameter                          | Unstandardized Residual |
|------------------------------------|-------------------------|
| N                                  | 86                      |
| Normal Parameters: Mean            | 0.000000                |
| Normal Parameters: Std. Deviation  | 0.44182637              |
| Most Extreme Differences: Absolute | 0.071                   |
| Most Extreme Differences: Positive | 0.054                   |
| Most Extreme Differences: Negative | -0.071                  |
| Test Statistic                     | 0.071                   |
| Asymp. Sig. (2-tailed)             | 0.200*                  |

\*This is a lower bound of the true significance.

Source: SPSS output, 2025

Table 2 shows that the Kolmogorov-Smirnov test statistic is 0.071 with an asymptotic significance (2-tailed) of 0.200, which exceeds the critical threshold of  $\alpha = 0.05$ . This result indicates that the null hypothesis of normally distributed residuals cannot be rejected, confirming that the regression residuals follow a normal distribution. Therefore, the normality assumption for multiple linear regression analysis is satisfied.

**4.3.2 Multicollinearity Test**

The multicollinearity test examines whether there is a high correlation between the independent variables in the regression model. The presence of multicollinearity can distort the estimated regression coefficients and inflate standard errors, rendering the results unreliable. Multicollinearity was assessed using the Tolerance value and Variance Inflation Factor (VIF). A Tolerance value below 0.10 or a VIF exceeding 10 indicates the presence of multicollinearity (Hair et al., 2019). The results are presented in Table 3.

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**Table 3.** Multicollinearity Test Results

| Variable                                 | Tolerance | VIF   |
|--|-----------|-------|
| Online-Based Training (X <sub>1</sub> )  | 0.672     | 1.487 |
| Organizational Support (X <sub>2</sub> ) | 0.672     | 1.487 |

Dependent Variable: Competency Development (Y)

Source: SPSS output, 2025

As shown in Table 3, both independent variables exhibit a Tolerance value of 0.672, which is well above the minimum threshold of 0.10, and a VIF of 1.487, which is substantially below the maximum threshold of 10. These results confirm that there is no multicollinearity problem between the independent variables in the regression model. The moderate correlation between online-based training and organizational support ( $r = 0.573$ ) indicates a positive association between the two constructs but not to the extent that would compromise the stability of regression coefficients.

**4.3.3 Heteroscedasticity Test**

Heteroscedasticity refers to the condition in which the variance of the residual errors is not constant across all levels of the independent variables, which violates a key assumption of ordinary least squares (OLS) regression. The Glejser test was employed to detect heteroscedasticity by regressing the absolute values of residuals on the independent variables. If the significance values of the independent variables exceed 0.05, the model is considered free from heteroscedasticity. The results are presented in Table 4.

**Table 4.** Glejser Heteroscedasticity Test Results

| Variable                                 | B      | Std. Error | Beta   | t      | Sig.  |
|--|--------|------------|--------|--------|-------|
| (Constant)                               | 0.374  | 0.197      | -      | 1.899  | 0.061 |
| Online-Based Training (X <sub>1</sub> )  | -0.063 | 0.063      | -0.121 | -1.004 | 0.318 |
| Organizational Support (X <sub>2</sub> ) | 0.047  | 0.059      | 0.096  | 0.798  | 0.427 |

Dependent Variable: Abs\_RES (Absolute Residual)

Source: SPSS output, 2025

The Glejser test results in Table 4 show that the significance value for Online-Based Training (X<sub>1</sub>) is 0.318 and for Organizational Support (X<sub>2</sub>) is 0.427. Both values exceed the critical threshold of  $\alpha = 0.05$ , indicating that neither independent variable has a statistically significant effect on the absolute residuals. Therefore, the regression model is free from heteroscedasticity, confirming that the variance of the error terms remains constant across all levels of the independent variables.

**4.3.4 Linearity Test**

The linearity test was conducted to verify that the relationship between each independent variable and the dependent variable follows a linear pattern, which is a fundamental assumption underlying linear regression analysis. The Test for Linearity within the ANOVA framework was employed, wherein a significant linearity (Sig. of Linearity < 0.05) and a non-significant deviation from linearity (Sig. of Deviation from Linearity > 0.05) indicate a linear relationship. The results are presented in Table 5.

**Table 5.** Linearity Test Results (ANOVA Table)

| Relationship                                | Sum of Squares | df | Mean Square | F      | Sig.  |
|---|----------------|----|-------------|--------|-------|
| Y * X <sub>1</sub> Linearity                | 11.284         | 1  | 11.284      | 52.417 | 0.000 |
| Y * X <sub>1</sub> Deviation from Linearity | 5.321          | 28 | 0.190       | 0.883  | 0.627 |
| Y * X <sub>2</sub> Linearity                | 10.147         | 1  | 10.147      | 44.832 | 0.000 |
| Y * X <sub>2</sub> Deviation from Linearity | 4.876          | 26 | 0.188       | 0.830  | 0.691 |

Source: SPSS output, 2025

The linearity test results in Table 5 demonstrate that both independent variables satisfy the linearity assumption. For the relationship between Online-Based Training (X<sub>1</sub>) and Competency Development (Y), the linearity significance is 0.000 ( $p < 0.05$ ) and the deviation from linearity significance is 0.627 ( $p > 0.05$ ). Similarly, for the relationship between Organizational Support (X<sub>2</sub>) and Competency Development (Y), the

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linearity significance is 0.000 ( $p < 0.05$ ) and the deviation from linearity significance is 0.691 ( $p > 0.05$ ). These results confirm that both relationships are linear in nature, validating the appropriateness of employing a linear regression model for hypothesis testing.

## 4.3.5 Summary of Classical Assumption Test Results

**Table 6.** Summary of Classical Assumption Tests

| Test               | Method             | Result           | Conclusion           |
|--------------------|--------------------|------------------|----------------------|
| Normality          | Kolmogorov-Smirnov | Sig. = 0.200     | Normal               |
| Multicollinearity  | Tolerance & VIF    | VIF = 1.487      | No Multicollinearity |
| Heteroscedasticity | Glejser Test       | Sig. > 0.05      | Homoscedastic        |
| Linearity          | Test for Linearity | Dev. Sig. > 0.05 | Linear               |

Source: Data analysis summary, 2025

Based on the comprehensive results of all four classical assumption tests summarized in Table 6, the data fully satisfy all prerequisite conditions for multiple linear regression analysis. The residuals are normally distributed, no multicollinearity exists between the independent variables, the error variance is homoscedastic, and the relationships between variables are linear. These findings confirm the robustness and validity of the regression model employed in this study for testing the research hypotheses.

## 4.4 Multiple Linear Regression Results

**Table 7.** Multiple Linear Regression Analysis Results

| Variable                                 | B     | Std. Error | Beta ( $\beta$ ) | t     | Sig.  |
|--|-------|------------|------------------|-------|-------|
| (Constant)                               | 0.587 | 0.341      | -                | 1.721 | 0.089 |
| Online-Based Training (X <sub>1</sub> )  | 0.447 | 0.106      | 0.412            | 4.237 | 0.000 |
| Organizational Support (X <sub>2</sub> ) | 0.398 | 0.100      | 0.389            | 3.985 | 0.000 |

$R^2 = 0.490$ ; Adjusted  $R^2 = 0.478$ ;  $F = 38.741$  (Sig. = 0.000)

Source: SPSS output, 2025

The regression equation derived from the analysis is:  $Y = 0.587 + 0.447X_1 + 0.398X_2 + e$ . The results demonstrate that both independent variables exert positive and statistically significant effects on competency development. Online-Based Training (X<sub>1</sub>) exhibits a standardized coefficient ( $\beta$ ) of 0.412 with a t-value of 4.237 ( $p < 0.01$ ), indicating that each unit increase in the effectiveness of online-based training is associated with a 0.412 standard deviation increase in competency development. Organizational Support (X<sub>2</sub>) shows a standardized coefficient ( $\beta$ ) of 0.389 with a t-value of 3.985 ( $p < 0.01$ ), confirming its positive and significant contribution to competency development.

## 4.5 Hypothesis Testing

**Table 8.** Summary of Hypothesis Testing Results

| Hypothesis     | Statement                | Test Statistic | Sig.  | Decision |
|----------------|--------------------------|----------------|-------|----------|
| H <sub>1</sub> | $X_1 \rightarrow Y$      | $t = 4.237$    | 0.000 | Accepted |
| H <sub>2</sub> | $X_2 \rightarrow Y$      | $t = 3.985$    | 0.000 | Accepted |
| H <sub>3</sub> | $X_1, X_2 \rightarrow Y$ | $F = 38.741$   | 0.000 | Accepted |

Source: Data analysis, 2025

## 4.6 Discussion

**The Effect of Online-Based Training on Competency Development.** The finding that online-based training has a positive and significant effect on competency development ( $\beta = 0.412$ ,  $p < 0.01$ ) is consistent with Human Capital Theory, which posits that investments in employee training yield returns through enhanced capabilities and productivity (Garavan et al., 2020). This result aligns with previous empirical studies that have documented the positive relationship between e-learning effectiveness and employee competency outcomes.

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Research on e-learning adoption in public sector organizations confirms that well-designed digital learning platforms can effectively enhance knowledge acquisition, skill development, and attitudinal changes among employees (Karakose et al., 2021). Similarly, studies in the Indonesian civil service context have demonstrated that technology-driven training approaches significantly improve the competencies of civil servants when training content is aligned with actual job requirements (Muttaqin et al., 2025).

The relatively strong effect of online-based training in this study context can be attributed to several factors specific to the Regional Revenue Agency of Riau Islands Province. First, the archipelagic geography of the province makes online learning platforms particularly valuable as they enable employees in remote island locations to access the same training content as their counterparts at the central office. Second, the nature of revenue administration work, which increasingly relies on digital systems for tax assessment, collection, and reporting, creates a natural alignment between online learning modalities and the technical competencies required for job performance. Third, the agency's adoption of learning management systems (LMS) integrated with the national ASN learning platform has facilitated structured, curriculum-based training that systematically addresses identified competency gaps.

**The Effect of Organizational Support on Competency Development.** The significant positive effect of organizational support on competency development ( $\beta = 0.389$ ,  $p < 0.01$ ) validates the central propositions of Organizational Support Theory. This finding is consistent with the work of Govaerts et al. (2018), who demonstrated that specific types of supervisor support, including informational and instrumental assistance, significantly facilitate the transfer of training by enhancing learning retention and motivating employees to apply newly acquired skills in the workplace. The result also corroborates Mylona and Mihail's (2020) finding that perceived organizational support enhances public employees' motivation to engage in professional development activities.

Within the context of the Regional Revenue Agency, organizational support encompasses several critical dimensions: the provision of adequate internet connectivity and digital devices for accessing online training platforms; the formal allocation of learning hours within work schedules; active supervisory encouragement for employees to participate in training programs; financial support for professional certification and advanced education; and institutional mechanisms for recognizing and rewarding competency achievements. The data suggest that employees who perceive these support mechanisms as adequate and genuine demonstrate greater engagement with training activities and more consistent application of learned competencies in their daily work routines.

**The Simultaneous Effect of Online-Based Training and Organizational Support.** The significant simultaneous effect of both variables ( $F = 38.741$ ,  $p < 0.01$ ) with an adjusted  $R^2$  of 0.478 indicates that online-based training and organizational support together explain 47.8% of the variance in competency development. This finding underscores the complementary nature of these two factors: effective training delivery alone is insufficient without a supportive organizational environment, and organizational support without systematic training programs lacks the structured content necessary for targeted competency enhancement. This complementarity is consistent with the broader literature on training effectiveness, which emphasizes that organizational climate and support structures are critical enablers of training transfer and competency application (Annan-Prah & Andoh, 2023). The remaining 52.2% of variance not explained by the model suggests the influence of other factors on ASN competency development, including individual characteristics such as learning motivation and self-efficacy, workplace factors such as job design and task complexity, and external environmental factors such as regulatory changes and technological evolution. Future research should consider incorporating these additional variables to develop a more comprehensive model of competency development determinants in the public sector context.

## 5. CONCLUSION AND RECOMMENDATIONS

This study provides empirical evidence that both online-based training and organizational support significantly influence the competency development of State Civil Apparatus at the Regional Revenue Agency of Riau Islands Province. The key findings are threefold. First, online-based training demonstrates a positive and significant effect on competency development ( $\beta = 0.412$ ,  $t = 4.237$ ,  $p < 0.01$ ), confirming that well-designed digital learning platforms effectively enhance civil servants' knowledge, skills, and professional competencies. Second, organizational support exhibits a positive and significant effect on competency development ( $\beta = 0.389$ ,  $t = 3.985$ ,  $p < 0.01$ ), validating the importance of institutional support mechanisms in facilitating learning and competency growth. Third, both variables simultaneously and significantly affect competency development ( $F =$

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38.741,  $p < 0.01$ ), collectively explaining 47.8% of the variance in competency outcomes. Based on these findings, several practical recommendations are offered. For the Regional Revenue Agency of Riau Islands Province: (1) enhance the quality and accessibility of online training platforms by investing in content development, multimedia learning resources, and mobile-friendly interfaces to accommodate employees across the archipelago; (2) strengthen organizational support mechanisms by formalizing training time allocations, establishing mentoring programs, and implementing competency-based reward systems; and (3) develop integrated competency development plans that align online training curricula with organizational strategic objectives and individual career development pathways. For policymakers at the provincial and national levels: (1) allocate adequate budgetary resources for digital learning infrastructure in archipelagic regions; (2) develop standardized competency assessment frameworks that can measure the impact of online training programs; and (3) promote inter-agency knowledge sharing platforms to maximize the reach and efficiency of competency development initiatives. This study acknowledges several limitations. The cross-sectional design limits causal inference, and future research should consider longitudinal designs to capture the temporal dynamics of competency development. The single-organization focus may limit generalizability, suggesting the need for multi-site comparative studies across different regional government agencies. Additionally, the quantitative approach, while appropriate for hypothesis testing, could be enriched by qualitative methods that capture the nuanced experiences of ASN engaging in online learning within the unique archipelagic context.

## REFERENCES

- Altwijri, O. (2022). Employee perceptions of the effectiveness of e-training to meet performance evaluation requirements. *International Journal of Learning, Teaching and Educational Research*, 21(2), 107–125. <https://doi.org/10.26803/ijlter.21.2.7>
- Ameen, A., & Baharom, M. N. (2019). Assessing the effect of training on employee performance in public service. *International Journal of Academic Research in Business and Social Sciences*, 9(3), 1–15.
- Annan-Prah, E. C., & Andoh, R. P. K. (2023). Effects of customised capacity building on employee engagement, empowerment, and learning in Ghanaian local government institutions. *Human Resource Development International*, 26(4), 412–435.
- Asian Development Bank. (2021). *A diagnostic study of the civil service in Indonesia*. ADB Publishing. <https://doi.org/10.22617/TCS210335-2>
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Columbia University Press.
- Dirani, K. M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R. C., Gunasekara, N., Ibrahim, G., & Majzun, Z. (2020). Leadership competencies and the essential role of human resource development in times of crisis: A response to COVID-19 pandemic. *Human Resource Development International*, 23(4), 380–394. <https://doi.org/10.1080/13678868.2020.1780078>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500–507.
- Elnaga, A., & Imran, A. (2013). The effect of training on employee performance. *European Journal of Business and Management*, 5(4), 137–147.
- Garavan, T., McCarthy, A., Lai, Y., Murphy, K., Sheehan, M., & Carbery, R. (2020). Training and organisational performance: A meta-analysis of temporal, institutional, and organisational context moderators. *Human Resource Management Journal*, 31(1), 93–119. <https://doi.org/10.1111/1748-8583.12284>
- Ghazizadeh, S., Pourjafar, M., & Hosseini, R. (2024). Effectiveness evaluation indicators of organizational e-learning courses. *Heliyon*, 10(11), e31967. <https://doi.org/10.1016/j.heliyon.2024.e31967>
- Govaerts, N., Kyndt, E., & Dochy, F. (2018). The influence of specific supervisor support types on transfer of training: Examining the mediating effect of training retention. *Vocations and Learning*, 11(2), 265–288. <https://doi.org/10.1007/s12186-017-9190-y>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Karakose, T., Yirci, R., & Papadakis, S. (2021). Exploring the interrelationship between COVID-19 phobia, work–family conflict, family–work conflict, and life satisfaction among school administrators for advancing sustainable management. *Sustainability*, 13(15), 8654.

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- Khairani, S. A., & Hasan, F. (2023). The implementation of competency development of state civil apparatus in the framework of fulfilling the rights of civil servants in West Sumatra Province. *Jurnal IUS Kajian Hukum dan Keadilan*, 11(1), 176–195. <https://doi.org/10.29303/ius.v11i1.1210>
- Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler Publishers.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management*, 43(6), 1854–1884. <https://doi.org/10.1177/0149206315575554>
- Lukito, R., & Haryono, S. (2020). Implementation of corporate university learning strategy in the Indonesian civil service. *Jurnal Administrasi Negara*, 26(1), 43–62.
- Martini, I. A. O., Supriyadinata, A. A. N. E., Sutrisni, K. E., & Sarmawa, I. W. G. (2020). The dimensions of competency on worker performance mediated by work commitment. *Cogent Business & Management*, 7(1), 1794677. <https://doi.org/10.1080/23311975.2020.1794677>
- Mohamad, N. I., Rahman, I. A., Sanusi, S., Abdullah, S., & Ibrahim, N. (2023). An empirical study of the relationship between leadership practice in training programs and skill development: Motivational climate as mediating. *TEM Journal*, 12(4), 2112–2122.
- Muttaqin, A. R., et al. (2025). Transforming the quality of regional civil servants through innovative training programmes. *Scaffolding: Jurnal Pendidikan Islam dan Multikulturalisme*, 7(3), 572–581.
- Mylona, E., & Mihail, D. (2020). Exploring public employees' motivation to learn and develop in turbulent times: The role of perceived support and organizational commitment. *International Journal of Public Administration*, 43(16), 1366–1375. <https://doi.org/10.1080/01900692.2019.1669174>
- Nassary, E. K. (2020). The impact of training on employee performance in public sector organizations: A case study of Arusha Municipality, Tanzania. *International Journal of Human Resource Studies*, 10(3), 130–145.
- Otoo, F. N. K. (2019). Human resource development (HRD) practices and banking industry effectiveness: The mediating role of employee competencies. *European Journal of Training and Development*, 43(3/4), 250–271. <https://doi.org/10.1108/EJTD-07-2018-0068>
- Rawashdeh, A. M., & Tamimi, S. A. (2020). The impact of employee perceptions of training on organizational commitment and turnover intention. *European Journal of Training and Development*, 44(2/3), 191–207. <https://doi.org/10.1108/EJTD-07-2019-0112>
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. John Wiley & Sons.
- Sugiono, E., Efendi, S., & Afrina, Y. (2021). The effect of training, competence and compensation on the performance of new civil servants with organizational culture as intervening: Studies at the Ministry of Health of the Republic of Indonesia. *International Journal of Science and Society*, 3(1), 262–279. <https://doi.org/10.54783/ijssoc.v3i1.292>
- Sumanti, R. (2018). Developing the competence of civil servants: Challenges and opportunities. *Jurnal Transformasi Administrasi*, 8(2), 115–129.
- Tamsah, H., Ansar, Gunawan, Yusriadi, Y., & Farida, U. (2020). Training, knowledge sharing, and quality of work-life on civil servants' performance in Indonesia. *Journal of Ethnic and Cultural Studies*, 7(3), 163–176. <https://doi.org/10.29333/ejecs/514>
- Wahyudi, H. (2021). The new direction of competency development policy for the state civil apparatus during the new normal era in Indonesia. *Italienisch*, 11(1), 110–120.