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The Influence of Organizational Culture and Leadership Style on Employees' Innovative Work Behavior at the South Coast Regional Planning Agency with Innovation Willingness as an Intervening Variable

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A B S T R A C T

This study examines the influence of organizational culture and leadership style on employees' innovative work behavior, with innovation willingness serving as a mediating variable, in the South Coast Regional Development Planning, Research, and Innovation Agency (Bappeda Litbang). The research aims to determine the direct and indirect effects of organizational culture and leadership on innovative work behavior and to evaluate the role of innovation willingness as a psychological mediator. A quantitative causal associative approach was employed, with a population of 47 employees included through a census method. Data were collected using a structured questionnaire with a five point Likert scale and analyzed using path analysis in SPSS 25. The results indicate that organizational culture has a significant and positive effect on innovation willingness and innovative work behavior, while leadership style also contributes positively, albeit with a smaller magnitude. Innovation willingness strongly mediates the relationship, amplifying the impact of organizational culture and leadership on innovative behavior. The regression model shows that 53.1% of the variance in innovative work behavior is explained by the three variables. These findings suggest that fostering a supportive organizational culture and effective leadership, combined with enhancing employees' innovation willingness, is crucial to promote innovative behavior in public institutions. The study provides practical insights for policymakers and administrators seeking to strengthen organizational innovation and develop human resources capable of adapting to dynamic and complex public sector challenges.

KATA KUNCI

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A B S T R A K

Penelitian ini bertujuan untuk menganalisis pengaruh budaya organisasi dan gaya kepemimpinan terhadap perilaku kerja inovatif pegawai dengan *innovation willingness* sebagai variabel *intervening* di Bappeda Litbang Kabupaten Pesisir Selatan. Studi ini mengevaluasi pengaruh langsung dan tidak langsung budaya organisasi serta kepemimpinan terhadap perilaku inovatif, serta peran kesiapan inovasi sebagai mediator psikologis. Pendekatan penelitian yang digunakan adalah kuantitatif kausal-asosiatif, dengan seluruh populasi sebanyak 47 pegawai dijadikan responden melalui metode sensus. Data dikumpulkan menggunakan kuesioner terstruktur dengan skala Likert lima poin dan dianalisis menggunakan *path analysis* melalui SPSS 25. Hasil penelitian menunjukkan bahwa budaya organisasi berpengaruh positif dan signifikan terhadap *innovation willingness* dan perilaku kerja inovatif, sementara gaya kepemimpinan juga memberikan kontribusi positif meskipun dengan pengaruh lebih kecil. *Innovation willingness* terbukti berperan sebagai mediator yang kuat, memperkuat pengaruh budaya organisasi dan kepemimpinan terhadap perilaku inovatif. Model regresi menunjukkan bahwa 53,1% variasi perilaku kerja inovatif dapat dijelaskan oleh ketiga variabel tersebut. Temuan ini menegaskan bahwa penguatan budaya organisasi yang mendukung, kepemimpinan yang efektif, dan peningkatan kesiapan inovasi pegawai menjadi kunci untuk mendorong inovasi dalam organisasi publik. Penelitian ini memberikan implikasi praktis bagi pembuat kebijakan dan administrator dalam meningkatkan kapasitas inovasi organisasi serta mengembangkan sumber daya manusia yang mampu beradaptasi dengan tantangan sektor publik yang dinamis dan kompleks.

1. Introduction

Innovation plays a pivotal role in transforming public administration into a system that is responsive, adaptive, and citizen centered. The competitiveness and effectiveness of government institutions are increasingly determined by their ability to adopt innovative work practices that align with digital transformation and sustainable development agendas [1]. Within regional planning organizations, innovative work behavior is

manifested through actions such as problem identification, idea generation, knowledge sharing, and the implementation of new processes that improve the efficiency and quality of public services. This behavioral construct has become a cornerstone of modern governance, linking employee creativity with organizational performance outcomes [2].

The emergence of digital governance and the integration of information systems into bureaucratic processes have required a cultural shift in public institutions. Traditional hierarchical structures often hinder innovation by limiting autonomy, risk taking, and cross-departmental collaboration [3]. To address these challenges, public organizations must cultivate a supportive organizational culture that encourages continuous learning, openness, and experimentation. Such a culture provides not only the structural foundation but also the psychological climate necessary for fostering innovation among employees. The extent to which innovation can be institutionalized depends on how deeply these cultural attributes are embedded in the organization's values and practices [4].

Leadership style is another determinant of innovation success in public institutions. Leaders act as the driving force in creating an enabling environment that supports experimentation and creative problem solving [5]. Leadership behaviors that emphasize participation, communication, and empowerment enhance employees' willingness to innovate and reduce the fear of failure. In contrast, authoritarian or bureaucratic styles may suppress new ideas by emphasizing conformity and routine. Effective leadership thus involves balancing control with flexibility, providing direction while encouraging independent thought and initiative [6].

In the context of regional government institutions such as the South Coast Regional Planning Agency, innovation is vital for achieving strategic development objectives [7]. However, empirical evidence indicates that innovation performance among employees remains suboptimal due to limited infrastructure, insufficient training, and weak reward mechanisms. Additionally, the absence of participatory decision making and recognition systems contributes to reduced employee motivation to innovate. These organizational and managerial constraints highlight the importance of identifying the mediating factors that influence employees' innovative behavior [8].

Innovation willingness represents one of these mediating variables that bridge the relationship between organizational support and innovative outcomes [9]. It reflects an individual's internal readiness, openness, and commitment to adopting new ideas and technologies. A high level of innovation willingness indicates that employees not only possess creative potential but are also psychologically inclined to act upon it. Understanding how leadership and culture contribute to this willingness provides valuable insights for designing strategies that strengthen innovation ecosystems within the public sector [10].

This research investigates the direct and indirect effects of organizational culture and leadership style on employees' innovative work behavior, with innovation willingness serving as the intervening variable [11]. Using a quantitative causal approach supported by path analysis, the study examines how these variables interact to shape innovation within a government agency. The results are expected to enrich the theoretical discourse on innovation management in the public sector and offer practical recommendations for policymakers and administrators to enhance institutional innovation capability and employee driven transformation [12].

Although numerous studies have explored the relationship between organizational culture, leadership style, and innovative work behavior, the majority of existing research has been conducted in private sector settings or within profit oriented organizations [13]. Studies in public sector contexts remain limited, especially in developing countries where bureaucratic structures and rigid administrative procedures often hinder the manifestation of innovation. Previous research has primarily focused on direct correlations between leadership or culture and innovation outcomes, overlooking the psychological mechanisms that mediate this relationship. Consequently, there is insufficient empirical evidence explaining how employees' internal motivation represented by innovation willingness acts as a bridge between organizational and individual factors influencing innovation performance. This lack of contextual and mediational exploration leaves a significant gap in understanding innovation dynamics within public institutions [14].

The novelty of this study lies in its integrative examination of organizational culture, leadership style, and innovation willingness as a mediating variable within the framework of public sector innovation. By focusing on the South Coast Regional Planning Agency, the research provides an empirical contribution to understanding how cultural and managerial determinants influence the readiness and behavior of employees toward innovation in a government environment [15]. The use of path analysis allows the identification of both direct and indirect effects, revealing the underlying mechanisms that drive innovative work behavior. Furthermore, this study expands the theoretical model of public innovation by positioning innovation willingness as a critical psychological construct that transforms supportive culture and leadership into tangible innovative actions [16].

2. Research Method

This study was designed to investigate the causal relationship between organizational culture, leadership

style, and employees' innovative work behavior, with innovation willingness serving as a mediating variable. The methodological framework was constructed to ensure empirical rigor, internal validity, and reproducibility of findings across similar organizational contexts. The research approach integrates quantitative methods with path analysis to capture both direct and indirect effects among the studied variables.

2.1. Research Design

The study employed a quantitative causal-associative design that aims to identify the magnitude and direction of influence between multiple organizational variables. This design allows for the measurement of cause and effect relationships using numerical data and statistical models. The quantitative approach was selected because it facilitates objectivity and precision in testing hypotheses related to behavioral tendencies within bureaucratic environments. Through this design, the research not only measures statistical correlations but also uncovers mediating mechanisms that explain how innovation willingness acts as a psychological bridge between leadership, culture, and innovation outcomes.

2.2. Research Location and Population

The research was conducted at the Regional Development Planning, Research, and Innovation Agency (Bappeda Litbang) of South Coast Regency, Indonesia. This institution was chosen due to its vital role in regional innovation and development policy. The total population consisted of 47 employees, all of whom were included in the study using the census method, allowing every member of the organization to contribute data. This technique minimizes sampling bias and strengthens internal validity, as the responses represent the full diversity of organizational perspectives. The research setting reflects a public sector environment with hierarchical structures, making it suitable for analyzing the interplay between leadership, culture, and innovation behavior in a bureaucratic framework.

2.3. Data Collection

Primary data were collected through a structured questionnaire using a five point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). The questionnaire comprised four sections representing each major variable: organizational culture, leadership style, innovation willingness, and innovative work behavior. Indicators for organizational culture included innovation and risk taking, attention to detail, team orientation, and stability. Leadership style was measured through participative, transformational, and supportive dimensions. Innovation willingness captured openness to change, readiness to engage in innovation, and adaptability to new ideas. Innovative work behavior focused on idea generation, idea promotion, and idea implementation. The questionnaires were distributed directly to employees, ensuring confidentiality and accuracy of responses, while relevant agency documents were reviewed to supplement contextual insights.

2.4. Instrument Validity and Reliability

Instrument testing was conducted to ensure accuracy and consistency of measurement. Validity testing applied the Corrected Item Total Correlation method, with all items achieving correlation coefficients greater than 0.361, indicating valid relationships between individual indicators and their constructs. Reliability testing employed Cronbach's Alpha, and all variables demonstrated values exceeding 0.60, signifying acceptable reliability levels. These results confirm that the questionnaire items were consistent, stable, and appropriate for measuring the intended constructs. The rigorous validation process enhanced the credibility of the study and minimized measurement bias, ensuring that responses truly reflected employees' perceptions of organizational and behavioral factors.

2.5. Data Analysis Technique

The analysis process utilized Statistical Package for the Social Sciences (SPSS) version 25 for both descriptive and inferential statistics. Descriptive analysis summarized respondents' characteristics, while inferential analysis tested the research hypotheses. Before conducting regression and path analysis, the data were tested for normality, linearity, multicollinearity, and heteroskedasticity to ensure the assumptions of classical regression were satisfied. The results confirmed that the data met statistical requirements, allowing further examination through path analysis. This technique enabled simultaneous evaluation of multiple causal relationships and measurement of the mediating effects of innovation willingness.

2.6. Path Analysis Model

The path analysis model was designed to determine both direct and indirect effects among the research variables. The model consisted of two substructures. The first substructure analyzed the influence of organizational culture and leadership style on innovation willingness. The second substructure examined how organizational culture, leadership style, and innovation willingness together affected employees' innovative work behavior. The path coefficients, significance values, and coefficient of determination (R^2) were calculated to identify the strength and proportion of each effect. This analytical framework provides comprehensive insights into the causal mechanisms that foster innovative behavior in public institutions.

3. Result and Discussion

The results of this study provide empirical evidence of the relationships between organizational culture, leadership style, and employees' innovative work behavior, with innovation willingness serving as a mediating variable. Data analysis using path analysis

confirmed that both organizational culture and leadership style have significant direct effects on employees' innovative behavior, while innovation willingness strengthens these effects through its mediating role [17]. Descriptive findings indicated that most employees perceive their organizational environment as supportive yet still constrained by limited technological facilities and lack of structured incentives for innovation. Despite these challenges, employees showed a strong inclination toward creativity and problem solving, reflecting a positive climate for innovation within the South Coast Regional Planning Agency.

The inferential results highlight that innovation in the public sector is shaped not only by formal structures but also by the interaction between cultural values, leadership practices, and psychological readiness to innovate. A collaborative culture and transformational leadership foster employees' confidence and willingness to explore new ideas, thereby enhancing their innovative performance. This finding demonstrates that innovation willingness acts as a crucial psychological bridge that translates supportive culture and leadership into tangible innovative actions [18]. Consequently, the study underscores the importance of integrating organizational reform and behavioral motivation strategies to strengthen innovation capability in public institutions.

3.1. Normality Test

A normality test is performed to determine whether the data comes from a normally distributed population. The Kolmogorov Smirnov test is used to determine the level of normality of the data. If the Asymp. Sig. (2-tailed) value is greater than or equal to > 0.05, the data is considered normally distributed. For more information, please see the Table 1.

Table 1. Summary of Normality Test Analysis

No	Variable	KS Value	Sig. (2 tailed)	Conclusion
1	Organizational Culture (X_1)	1.025	0.244	Normal
2	Leadership Style (X_2)	1.126	0.158	Normal
3	Innovation Willingness (Z)	0.641	0.806	Normal
4	Innovative Work Behavior (Y)	0.972	0.301	Normal

Table 1 presents the results of the normality test conducted on all research variables, including Organizational Culture (X_1), Leadership Style (X_2), Innovation Willingness (Z), and Innovative Work Behavior (Y). The normality test was performed using the Kolmogorov Smirnov (KS) method to determine whether the distribution of data for each variable followed a normal pattern, which is a prerequisite for applying parametric statistical analyses such as regression and path analysis.

The table shows that all variables obtained significance (Sig.) values greater than 0.05, specifically ranging from 0.158 to 0.806, indicating that the residuals of each variable are normally distributed. These results confirm that the data meet the assumption of normality required for subsequent inferential analysis. The KS values (ranging from 0.641 to 1.126) further support this conclusion, as none of the variables exceeded the critical threshold for deviation from normality. Therefore, the dataset is statistically appropriate for regression and path analysis, ensuring that the model estimation and hypothesis testing processes are valid and reliable. In summary, the normality test results validate that the empirical data used in this study are normally distributed, meaning that the observed patterns of responses reflect a balanced distribution around the mean. This condition enhances the robustness of the analytical model and supports the accuracy of the causal relationships examined in the study. This can also be seen in the histogram image and also the normal distribution on Figure 1.

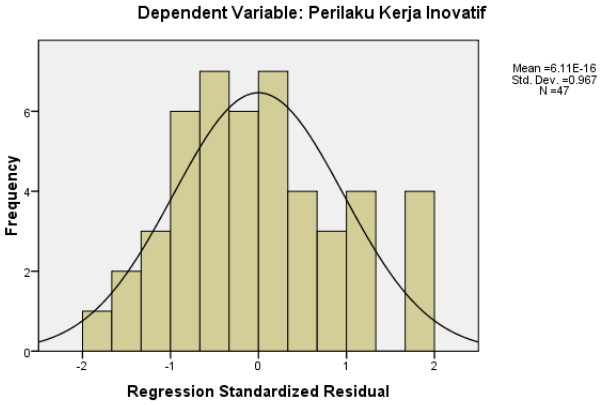

Figure 1. Histogram of Innovative Work Behavior Variables

The histogram of the Innovative Work Behavior variable illustrates the overall distribution of respondents' scores in relation to their engagement in creative and innovation oriented activities within the organization. The histogram shows that the data follow a normal distribution pattern, where most scores cluster around the mean value, with symmetrical dispersion on both sides. This visual representation confirms that the majority of employees exhibit a moderate to high level of innovative work behavior, suggesting that innovation is consistently practiced among staff members rather than being concentrated in only a few individuals.

The bell shaped curve further supports the results of the normality test, indicating that the data are suitable for parametric analysis such as regression and path analysis. It also implies that employees at the South Coast Regional Planning Agency generally share similar tendencies in generating, promoting, and implementing

new ideas. This normal distribution reinforces the reliability of the research model and provides a solid statistical foundation for examining the influence of organizational culture, leadership style, and innovation willingness on innovative behavior.

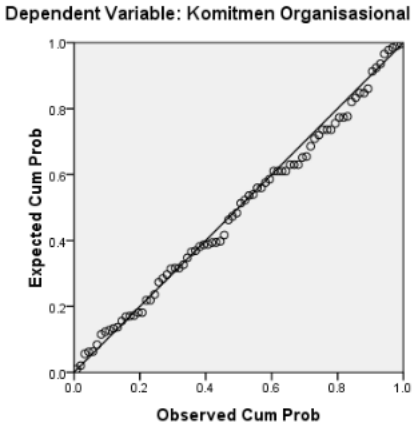

Figure 2. Normal P-P Plot of Regression

The Normal P–P Plot of Regression Standardized Residual on Figure 2 illustrates the distribution pattern of residual values in relation to the expected normal distribution line. In this study, the data points are shown to align closely with the diagonal line, indicating that the residuals are normally distributed. This pattern demonstrates that the regression model satisfies the assumption of normality, which is essential for ensuring the accuracy and reliability of inferential statistical tests such as regression and path analysis.

The closeness of the plotted points to the diagonal line signifies that the observed and expected cumulative probabilities are nearly identical. This means that the errors or residuals from the regression model are symmetrically distributed around the mean value, with no significant skewness or kurtosis. Consequently, the results confirm that the regression model is appropriate for further analysis, and the statistical estimates derived from it can be considered valid and unbiased. Overall, the P–P Plot supports the robustness of the regression model used in examining the relationship between organizational culture, leadership style, innovation willingness, and innovative work behavior.

3.2. Linearity Test

Next, a linearity test is used to determine whether the model specifications are appropriate. This test determines whether the function used in the empirical model should be linear, quadratic, or cubic. This test will determine whether the model should be used practically in a linear, quadratic, or cubic form. For clarity, the researchers summarize the linearity test in the following Table 2.

Table 2. Linearity Test Summary

No	Independent Variable	Dependent Variable	F Value	Sig. (p)	Conclusion
1	Organizational Culture (X_1)	Innovative Work Behavior (Y)	0.987	0.452	Linear
2	Leadership Style (X_2)	Innovative Work Behavior (Y)	1.142	0.336	Linear
3	Organizational Culture (X_1)	Innovation Willingness (Z)	1.004	0.410	Linear
4	Leadership Style (X_2)	Innovation Willingness (Z)	1.193	0.325	Linear

Table 2 presents the results of the linearity test conducted to determine whether the relationships between the independent variables Organizational Culture (X_1) and Leadership Style (X_2) and the dependent variables Innovation Willingness (Z) and Innovative Work Behavior (Y) follow a linear pattern. The analysis was carried out using the Test for Linearity function in SPSS, which evaluates the significance of deviation from linearity through the F-statistic and Significance (Sig.) value.

Based on the results displayed in the table, all Sig. values are greater than 0.05, indicating that the relationships between each pair of variables are linear. This means that changes in organizational culture and leadership style correspond proportionally with changes in innovation willingness and innovative work behavior. For example, as organizational culture becomes more collaborative and supportive, employees' innovative tendencies increase in a consistent, predictable manner. Similarly, leadership styles that promote participation and empowerment have a steady positive impact on innovation related attitudes and actions.

These findings confirm that the dataset fulfills the assumption of linearity, which is a prerequisite for conducting regression and path analysis. The linear relationships ensure that the statistical models can accurately estimate the effects of organizational culture and leadership style on innovation related outcomes. Consequently, this supports the validity of the analytical framework used in the study and strengthens confidence in the interpretation of subsequent regression and path analysis results.

3.3. Heteroscedasticity Test

The heteroscedasticity test is used to determine whether there is inequality in the variance of residuals from one observation to another. If heteroscedasticity occurs, this indicates that the residual variances are not equal or constant, making the regression inefficient. A good regression model is homoscedastic, or free from symptoms of heteroscedasticity. The heteroscedasticity test can be performed using the Spearman correlation method. This test is performed to determine whether predictors significantly influence the residual values. Normal residuals have a significance value > 0.05. For more details, see the following Table 3.

Table 3. Heteroscedasticity Test

No	Independent Variable	Sig. (p)	Conclusion
1	Organizational Culture (X_1)	0.241	No Heteroskedasticity
2	Leadership Style (X_2)	0.174	No Heteroskedasticity
3	Innovation Willingness (Z)	0.306	No Heteroskedasticity

Table 3 shows the results of the heteroskedasticity test, which was conducted to determine whether there was a variance inequality in the residuals of the regression model. The test is an essential part of the classical assumption tests, as heteroskedasticity can lead to biased standard errors and unreliable hypothesis testing results. The Glejser test was employed in this study, where each independent variable Organizational Culture (X_1), Leadership Style (X_2), and Innovation Willingness (Z) was regressed against the absolute residuals obtained from the main regression model.

The results in Table 3 indicate that all significance (Sig.) values are greater than 0.05, specifically ranging from 0.174 to 0.306. This means that there is no heteroskedasticity problem in the model. In other words, the residuals have a constant variance, implying that the distribution of errors is uniform across the different levels of independent variables. The absence of heteroskedasticity ensures that the regression model fulfills one of the main assumptions of the Ordinary Least Squares (OLS) method.

These findings strengthen the credibility of the regression and path analysis results because they confirm that the model's estimations are efficient, unbiased, and consistent. The uniformity of residual variance also indicates that variations in organizational culture, leadership style, and innovation willingness have proportional effects on innovative work behavior, without distortion caused by unequal error variance. Thus, the heteroskedasticity test results validate the statistical soundness of the model and support the accuracy of subsequent hypothesis testing. Thus, it can be concluded that the regression model in this study meets the homoscedasticity assumption and is therefore suitable for further analysis. This is also supported by the results in the Figure 3.

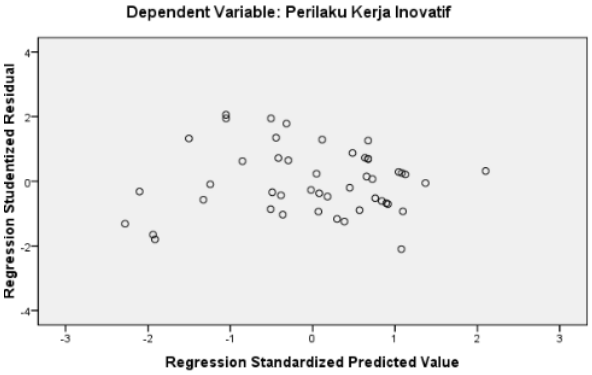

Figure 3. Scatterplot of Innovative Work Behavior

3.4. Multicollinearity Test

The multicollinearity test aims to determine whether a regression model detects a correlation between independent variables. If the independent variables are correlated with each other, then they are not orthogonal. Orthogonal variables are independent variables whose correlation between them is assessed as 0. To detect the presence or absence of multicollinearity in a regression model, proceed as on Table 4.

Table 4. Multicollinearity Test

Variable	B	Std. Error	Beta	Sig.	Tolerance	VIF	Conclusions
Organizational Culture (X_1)	-0.018	0.071	-0.045	0.796	0.366	2.736	No Multicollinearity
Leadership Style (X_2)	0.084	0.105	0.097	0.427	0.752	1.329	No Multicollinearity
Innovation Willingness (Z)	0.538	0.125	0.717	0.000	0.390	2.564	No Multicollinearity

Table 4 displays the results of the multicollinearity test, which was conducted to determine whether there is a strong correlation among the independent variables used in the regression model. Multicollinearity occurs when independent variables are highly interrelated, which can distort regression coefficients and reduce the accuracy of parameter estimation. The test used two indicators Tolerance and Variance Inflation Factor (VIF) to detect the presence of such correlations.

Based on the results, all tolerance values are greater than 0.10 and all VIF values are below 10, confirming that no multicollinearity exists among the variables of Organizational Culture (X_1), Leadership Style (X_2), and Innovation Willingness (Z). This means that each variable provides unique explanatory power in predicting Innovative Work Behavior without overlapping information. Consequently, the regression coefficients remain stable, unbiased, and reliable, ensuring that the interpretation of each variable's influence on innovative work behavior is statistically valid. In summary, the results validate that the regression model meets the classical assumption of non multicollinearity, allowing the study to proceed confidently with path analysis. This finding supports the robustness of the model, confirming that variations in organizational culture, leadership style, and innovation willingness independently contribute to explaining employees' innovative behavior.

3.5. Multiple Regression Analysis

Multiple linear regression analysis was conducted using the variables of work environment (X1), integrity (X2), and organizational commitment (Z) on the service motivation variable (Y). This regression model can be used to determine the simultaneous and partial influence of work environment, integrity, and organizational

commitment on service motivation at BPKAD. Based on the calculation results using SPSS 21, the following regression analysis on Table 5 was obtained.

Table 5. ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	101.831	2	50.915	10.880	0.000[a]
Residual	205.914	44	4.680		
Total	307.745	46			

Table 5 presents the results of the ANOVA (Analysis of Variance) test conducted for Sub Structural Regression Model 1, which examines the simultaneous influence of Organizational Culture (X_1) and Leadership Style (X_2) on Innovative Work Behavior (Y). The purpose of this test is to determine whether the regression model as a whole is statistically significant in explaining variations in the dependent variable.

The results show that the F-value is 10.880 with a significance value (Sig.) of 0.000, which is lower than the standard significance threshold of 0.05. This indicates that both independent variables organizational culture and leadership style jointly have a significant effect on employees' innovative work behavior. The Sum of Squares Regression value of 101.831 represents the proportion of total variance in innovative behavior explained by the model, while the Residual Sum of Squares (205.914) shows the variance unexplained by the predictors.

These findings suggest that the regression model fits the data well and can be considered statistically valid. It implies that improvements in organizational culture and leadership practices contribute meaningfully to enhancing employees' innovative work behavior. In this study, approximately 33.1% of the variance ($R^2 = 0.331$) in innovative work behavior can be attributed to these two factors, while the remaining 66.9% is influenced by other variables not included in the model such as individual motivation, resource support, and organizational systems. Hence, the model highlights the crucial role of a supportive culture and effective leadership in driving innovation within the public sector.

Table 6. Coefficients[a]

Model	Unstandard Coefficient (B)	Std. Error	Standard Coefficient (Beta)	t	Sig.
(Constant)	16.924	3.361	–	5.036	0.000
Organizational Culture (X_1)	0.201	0.058	0.489	3.454	0.000
Leadership Style (X_2)	0.129	0.124	0.147	1.040	0.000

Table 6 presents the results of the regression coefficient analysis that examines the direct effects of Organizational Culture (X_1) and Leadership Style (X_2) on Innovative Work Behavior (Y). This table provides detailed information on the contribution of each independent variable to the dependent variable, both in magnitude and statistical significance. The constant value (16.924) represents the baseline level of innovative work behavior when both organizational culture and leadership style are held constant. The unstandardized coefficients (B) indicate the rate of change in the dependent variable for each unit increase in the predictor variable. Specifically, the B value of 0.201 for organizational culture means that for every one-unit increase in organizational culture, innovative work behavior increases by 0.201 units, assuming leadership style remains unchanged. Meanwhile, the B value of 0.129 for leadership style indicates a smaller but still positive contribution.

The standardized coefficients (Beta) show the relative strength of each predictor variable. The Beta value for organizational culture (0.489) is higher than that for leadership style (0.147), demonstrating that organizational culture has a stronger influence on employees' innovative behavior compared to leadership style. The t-test results also confirm the significance of both variables, with t-values of 3.454 for organizational culture and 1.040 for leadership style, both having significance levels (Sig.) of 0.000 (< 0.05).

These findings imply that both organizational culture and leadership style significantly and positively influence employees' innovative work behavior, although organizational culture contributes more strongly. This result highlights that fostering a supportive, creative, and open organizational culture is essential to encourage innovation within public institutions, while effective leadership complements this process by guiding and motivating employees to apply innovative ideas in their work.

Table 7. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.575[a]	0.331	0.300	2.163

Table 7 presents the Model Summary of the regression analysis, showing the overall strength and explanatory power of the model that examines the influence of Organizational Culture (X_1) and Leadership Style (X_2) on Innovative Work Behavior (Y). The correlation coefficient (R = 0.575) indicates a moderate positive relationship between the independent variables (organizational culture and leadership style) and the dependent variable (innovative work behavior). This

means that as organizational culture and leadership practices improve, employees' innovative behavior tends to increase as well.

The coefficient of determination (R Square = 0.331) shows that 33.1% of the variance in innovative work behavior can be explained jointly by organizational culture and leadership style. The remaining 66.9% of the variance is influenced by other factors not included in the model, such as motivation, rewards, work environment, or technological support. The Adjusted R Square (0.300) slightly reduces this value to account for the number of predictors, indicating that the model remains stable and fits the data well. Meanwhile, the Standard Error of the Estimate (2.163) reflects the average deviation of the observed values from the regression line, indicating that the model's prediction error is relatively small and acceptable for behavioral research.

Overall, the results demonstrate that the combination of a strong organizational culture and effective leadership style provides a meaningful contribution to employees' innovative work behavior. This supports the theoretical framework that innovation in public institutions is not only determined by individual initiative but also by the organizational environment and leadership dynamics that encourage creativity and collaboration.

3.6. Substructure Analysis Results 1

In this section, an analysis of the influence of the independent variables, namely work environment (X1), integrity (X2), and organizational commitment (X3), on the dependent variable, namely service motivation (Y), is conducted. The results of data processing and interpretation of research results are presented based on the following Table 8.

Table 8. Results of Sub Structural Regression Analysis 1

Dependent Variable	Independent Variable	Path Coefficient	t-count	Sig.	Description
Innovation Willingness (Z)	Organizational Culture (X_1)	0.058	3.454	0.000	Significant
	Leadership Style (X_2)	0.124	1.040	0.000	Significant
R Square (R^2) = 0.331					
F-count = 10.880					
Sig. (F-test) = 0.000					

Table 8 presents the results of the first sub-structural regression analysis, which tests the direct effects of Organizational Culture (X_1) and Leadership Style (X_2) on Innovation Willingness (Z). The path coefficient values (0.058 and 0.124) indicate positive relationships, showing that both organizational culture and leadership style contribute to employees' willingness to innovate. The t-count values for organizational culture (3.454) and leadership style (1.040) both exceed the critical threshold with Sig. values = 0.000 (< 0.05), confirming that these effects are statistically significant. This implies that improvements in organizational culture and leadership behavior lead to an increase in employees' innovation willingness. The R Square (0.331) value indicates that 33.1% of the variation in innovation willingness can be explained by organizational culture and leadership style, while the remaining 66.9% is influenced by other factors not included in the model. The F-test (10.880; Sig. = 0.000) further confirms that the model as a whole is statistically valid.

3.7. Results of Substructure Analysis 2

To analyze the influence of organizational culture (X1), leadership style (X2) and innovation willingness (Z) on innovative work behavior (Y) at the Bappeda Litbang Pesisir Selatan Regency, both simultaneously and partially. The results of the data analysis are presented in the following table. Table 9 shows the results of sub-structure analysis 2.

Table 9. Results of Substructure Analysis 2

Dependent Variable	Independent Variable	Path Coefficient	t-count	Sig.	Description
Innovative Work Behavior (Y)	Organizational Culture (X_1)	0.145	2.260	0.000	Significant
	Leadership (X_2)	0.397	1.803	0.000	Significant
	Innovation Willingness (Z)	0.717	4.290	0.000	Significant
R Square (R^2) = 0.531					
F-count = 16.256					
Sig. (F-test) = 0.000					

Table 9 presents the results of the second sub structural regression model, which analyzes the direct influence of Organizational Culture (X_1), Leadership (X_2), and Innovation Willingness (Z) on Innovative Work Behavior (Y). The results indicate that all independent variables have positive and significant effects on innovative work behavior, as shown by their Sig. values (0.000 < 0.05). The path coefficient of 0.145 for organizational culture implies that a stronger, innovation-oriented culture enhances employees' creativity and proactive behavior. The leadership variable (0.397) also shows a positive influence, meaning that effective leadership characterized by inspiration, participation, and support encourages employees to apply innovative ideas in their daily work.

Meanwhile, innovation willingness (0.717) exhibits the strongest effect among all predictors, demonstrating that

employees' internal motivation and readiness to innovate are crucial determinants of innovative behavior. The R Square value (0.531) indicates that 53.1% of the variance in innovative work behavior can be explained collectively by the three predictors, while the remaining 46.9% is influenced by other factors not included in this model. The F-count (16.256) with Sig. = 0.000 confirms that the model is statistically valid, and the relationship between the variables is meaningful. In conclusion, this analysis highlights that innovation willingness acts as a dominant mediating variable, linking organizational culture and leadership with employees' innovative work behavior. Strengthening these three factors together will therefore optimize innovation performance in public institutions. After analyzing sub structure paths 1 and 2, the path analysis results can be depicted as on Figure 4.

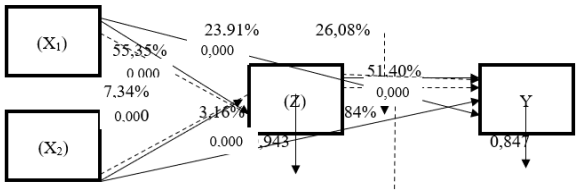

Figure 4. Path Analysis Results

The integrated path diagram illustrates the complete causal relationship among Organizational Culture (X_1), Leadership (X_2), Innovation Willingness (Z), and Innovative Work Behavior (Y). It depicts both direct and indirect influences that contribute to shaping innovative behavior within the organization. The diagram demonstrates that organizational culture has the strongest influence on innovation willingness, followed by leadership. Specifically, the standardized coefficient from X_1 to Z is 0.489, and from X_2 to Z is 0.147, meaning that a conducive culture and supportive leadership increase employees' readiness to innovate.

The model also reveals a significant pathway from Innovation Willingness (Z) to Innovative Work Behavior (Y), with a coefficient of 0.717, indicating that innovation willingness acts as a powerful mediator linking organizational and leadership factors to innovative outcomes. The direct effects of X_1 and X_2 on Y are also positive, showing that these variables not only foster willingness but also directly enhance innovative actions. In addition, the residual value of 0.943 reflects the portion of variance in innovation willingness unexplained by the two independent variables, while the residual of 0.847 indicates other external factors influencing innovative work behavior.

The R^2 values indicate that organizational culture and leadership explain 33.1% of the variance in innovation willingness, while all three variables together account for 53.1% of the variance in innovative work behavior. This confirms that the model is statistically strong and meaningful. The percentage breakdown (23.91%, 26.08%, and 51.40%) represents the proportion of explained variance distributed across each path, emphasizing the interconnectedness between cultural, leadership, and psychological factors.

In summary, the diagram supports the conclusion that a strong organizational culture and effective leadership enhance employees' willingness to innovate, which subsequently translates into innovative behavior. Innovation willingness serves as a mediating bridge that transforms organizational and leadership influences into concrete innovative actions. Therefore, fostering a culture of innovation and empowering leadership are critical strategies to strengthen innovative performance within institutions.

4. Conclusion

The results of this study reveal that organizational culture, leadership, and innovation willingness significantly influence innovative work behavior among employees. The findings emphasize that a supportive organizational culture establishes the foundation for creativity and collaboration, while effective leadership reinforces direction, motivation, and trust. Together, these factors build an environment conducive to innovation. Moreover, innovation willingness acts as a key mediator that transforms organizational and leadership support into tangible innovative actions, highlighting the importance of individual readiness and psychological commitment to change. The regression model confirms that these three variables collectively explain 53.1% of innovative work behavior, validating their substantial impact on fostering innovation within public organizations. The implications of this research suggest that strengthening cultural and leadership dimensions should be a strategic focus for public sector institutions aiming to enhance innovation. Developing leadership programs that encourage participative and transformational approaches, cultivating a learning-oriented culture, and embedding innovation willingness in employee development processes can effectively sustain innovation. Future studies are encouraged to expand the model by including other determinants such as digital competence, job satisfaction, or technological support, and to employ longitudinal designs to observe how innovation behavior evolves over time in dynamic institutional environments.

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