

Digital Leadership and Digital Competence in Enhancing Government Service Effectiveness: The Moderating Role of Organizational Structure in Ciasem District, Subang

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Abstract

This study aims to analyze the influence of digital leadership and digital competence on the effectiveness of government apparatus services with organizational structure as a moderating variable in Ciasem Subdistrict, Subang Regency. The study uses a quantitative approach with a survey method. The research population consisted of 106 subdistrict and village government officials, with a sample of 97 respondents determined using the Slovin formula and proportioned stratified random sampling technique. Data were collected through questionnaires and analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) with the help of SmartPLS 4.0. The results show that digital leadership and digital competence have a positive and significant effect on service effectiveness. However, organizational structure was not found to moderate the effect of digital leadership or digital competence on service effectiveness. These findings indicate that improvements in public service effectiveness are more directly influenced by the digital leadership and digital competence of officials. This study contributes theoretically to the study of digital transformation-based public management and has practical implications for improving the quality of public services at the subdistrict level.

1. Introduction

The performance of government officials is one of the important factors in building effective, efficient, and public service-oriented governance. In general, the performance of government officials in Indonesia still faces a number of problems. These include low digital competence, a rigid bureaucratic system, and the suboptimal implementation of good governance principles (Annur, 2021).

According to the Badan Pusat Statistik Subang Regency, (2024) the population of Ciasem District has increased, while limitations in human resources and infrastructure distribution still need to be improved. Although government digitization has shown progress, its implementation has not been uniform, making it important to strengthen the leadership and digital competence of the civil service in order to improve the quality of public services.

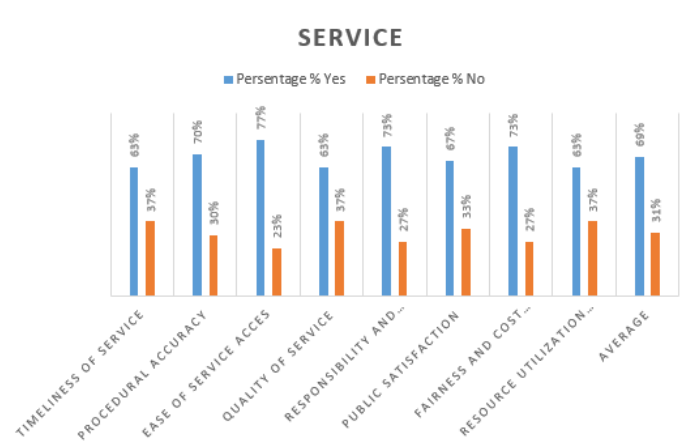


Figure 1 Pre-Research, 2026

The results of a preliminary survey of 30 officials in Ciasem Subdistrict show that around 69% of respondents still consider public services to be suboptimal, as evidenced by procedural inconsistencies, complicated processes, and long service times. These findings indicate the need to improve the professionalism of officials and utilize digital technology, making the strengthening of digital leadership and digital competence important factors in improving the efficiency of public services in Ciasem Subdistrict, Subang.

Service effectiveness is a strategy to improve the performance of civil servants in providing fast, accurate, and transparent services. Public services can be more efficient and accountable through digital systems, so that service objectives are achieved in accordance with community needs (Marlinda & Yuneфри, 2021). Effectiveness reflects the fulfillment of community needs in accordance with regulations and the achievement of targets with adequate quality as an indicator of success (Maulida. A, 2025). A sound organizational structure ensures effective task execution and interdepartmental coordination through clear roles, communication, and decision-making, thereby influencing operational efficiency (Ganis Aliefiani et al., 2022). This structure also determines task distribution, communication channels, and the organization's responsiveness to environmental dynamics (Jerab & Mabrouk, 2023), and facilitate the coordination of responsibilities and authorities (Yaqin et al., 2023). Digital leadership is needed to guide officials in adapting to change and making optimal use of technology, accelerating organizational transformation in the face of Industry 4.0 disruption, and encouraging sustainable innovation (Dewi, 2024). Digital competence is important for improving the effectiveness of technology-based public services, as ICT proficiency helps officials adapt to digital systems, improve efficiency, and minimize errors. It encompasses technical skills, critical-creative thinking, and an understanding of the social, economic, and ethical impacts of digital activities (Ma & Ismail, 2025; Nursyahfitri et al., 2025). Overall, digital competence refers to the comprehensive skill in using technology productively, responsibly, and confidently in personal, professional, and social contexts (Asagar, 2025).

Research by Oktaviani et al., (2025) shows that employee competence and bureaucratic structure have a significant effect on the performance of government organizations, whereas organizational culture does not. Transformational leadership positively moderates the relationship between bureaucratic structure and employee competence, and negatively moderates the relationship between organizational culture and employee competence, making organizational structure and human resource quality key factors in public effectiveness. In addition, research Ismail et al., (2024) shows that digitization has a positive effect on the effectiveness of work administration. Research by Ashdaq & Mandasari, (2022) shows that digital competence significantly improves work effectiveness, while job placement has a positive but insignificant effect.

In addition, there has not been much research examining organizational structure as a moderator. Therefore, this study is novel in empirically testing the connection between digital leadership and digital competence on service effectiveness at the subdistrict level. This study examines this issue in Ciasem Subang Subdistrict and is expected to add to theory and practically to the digital transformation of the public sector.

This research seeks to obtain a descriptive overview of the conditions of Digital Leadership, Digital Competence, Organizational Structure, and Service Effectiveness among government officials in Ciasem Subdistrict, Subang Regency. In addition, this study also aims to determine the influence of Digital Leadership on Service Effectiveness, as well as the influence of Digital Competence on Service Effectiveness. Furthermore, this study aims to examine the role of Organizational Structure as a moderating variable in strengthening or weakening the influence of Digital Leadership on Service Effectiveness, as well as in moderating the influence of Digital Competence on Service Effectiveness.

2. Literature Review

2.1 Service Effectiveness

Service effectiveness is the achievement of objectives in a timely manner with the appropriate use of resources, as well as a measure of the success of actions or programs in meeting user needs and expectations satisfactorily (Suryani et al., 2022). According to Maulida, (2025) service effectiveness is the degree of success of actions or programs in achieving predetermined results in the public and private sectors. According to Septia et al., (2025) service effectiveness is the ability to meet user needs and expectations accurately and satisfactorily. According to Sumbawati et al., (2020) public service effectiveness is the ability of the administration to achieve objectives efficiently and transparently.

Based on Suryani et al. (2022); Maulida. A. (2025); Sumbawati et al. (2020), service effectiveness has several main dimensions, namely: (1) Achievement of objectives with indicators (a) Achievement of results, (b) Service target suitability, (2) Timeliness with indicators (a) Timeliness of implementation, (b) Speed of service completion, (3) Resource efficiency with indicators (a) Efficiency of resource use, (b) Minimal waste, (4) Quality of service results with indicators (a) Quality of results, (b) Fairness in service, and (5) program monitoring and evaluation with indicators (a) Evaluation of implementation, (b) Follow-up improvements.

2.2 Organizational Structural

Organizational structure is a framework that regulates the division of tasks, work relationships, and coordination flows within an organization. (Jerab & Mabrouk, 2023). According to Ganis Aliefiani et al., (2022) Organizational structure is a framework that regulates the division of tasks, responsibilities, work relationships, and coordination flows to ensure that activities run effectively and efficiently. Meanwhile, according to Albert, (2024) organizational structure is a concept that has elements and meanings that can differ depending on the approach used.

Based on Jerab & Mabrouk, (2023); Ganis Aliefiani et al. (2022); Albert, (2024) organizational structure has several main dimensions, namely: (1) Hierarchy and division of authority with indicators (a) Division of responsibilities, (b) Clarity of job descriptions, (2) Centralization and decentralization of decision-making with indicators (a) Decision-making, (b) Employee participation, (3) Coordination and communication between units with indicators (a) Coordination between units, (b) Information exchange, (4) Organizational flexibility with indicators (a) Structural flexibility, (b) Adaptation to change, (5) Work relationships and responsibilities with indicators (a) Work relationships, (b) Employee cooperation, and (6) Efficiency in task execution with indicators (a) Task Efficiency, (b) Task suitability.

2.3 Digital Leadership

Digital Leadership means the capability that enables organizations to adapt and innovate in a dynamic digital environment (Cahyati Wulandari & Sri Pudjiarti, 2024). Digital leadership refers to the ability of leaders to use digital technology strategically to improve performance, drive innovation, and achieve organizational goals (Hussein et al., 2024; Soehaditama et al., 2023). Digital leadership is a leadership style based on technology that supports operations and the achievement of organizational goals, including in an academic context (Karakose et al., 2024).

Based on Cahyati Wulandari & Sri Pudjianti, (2024); Hussein et al. (2024); Soehaditama et al. (2023); Karakose et al. (2024) digital leadership has several main dimensions, namely : (1) Adaptability & Agility with indicators (a) Adaptability, (b) Agility (2) Digital Competence & Vision with indicators (a) Digital vision (b) Data-driven decision making, (3) Innovation & Transformation with indicators (a) Technological innovation, (b) Changes indigital work culture, (4) Learning & Knowledge Managemen with indicators (a) Knowledge management, (b) Facilitating digital training.

2.4 Digital Competency

Digital competence is the skill of individuals to use the internet and information technology critically, creatively, productively, responsibly, and safely in their daily activities (Nugraha, 2022). Digital competence is a mix of knowledge and skills, attitudes, and abilities to complete tasks, resolve issues, communicate, handle information, work together, and produce content effectively (Görtl et al., 2024; Hansen & Georgsen, 2023). Holistically, digital competence is an individual's integral ability to interact with digital technology confidently, critically, and responsibly in various personal, educational, professional, and social contexts (Asagar, 2025).

Based on Nugraha, (2022); Görtl et al. (2024); Hansen & Georgsen (2023); Asagar, (2025), the dimensions of digital competence are: (1) Digital knowledge with indicators (a) Mastery of digital technology tools, (b) Understanding of digital tool functions, (2) Digital skills with indicators (a) Data information management, (b) Operation of work applications, (3) Digital skills ethics with indicators (a) Digital security ethics, (b) Data privacy compliance, (4) Digital creativity and innovation with indicators (a) Innovation creation, (b) Digital content, (5) Digital collaboration and communication with indicators (a) Digital

collaboration, (b) Digital communication, (6) Reflection and development with indicators (a) Reflection, (b) Development.

3. Research Framework and Hypothesis

Digital leadership is the ability of leaders to use digital technology strategically to navigate complex digital environments. Dewi, (2024) proves that digital leadership has a positive and significant effect on work effectiveness, since leadership that is adaptive to technology can improve performance and productivity. Digital competence is a set of attitudes, knowledge, and understanding that enable a person to utilize information and communication technology critically, creatively, productively, and responsibly. In line with this, Ashdaq & Mandasari (2022) found that the digital competence of civil servants contributes to increased performance effectiveness through accelerated work processes, ease of access to information, and better service quality. Organizational structure is the foundation that regulates tasks, roles, and communication flows between individuals and work units so that organizational activities run effectively, efficiently, and in a coordinated manner. Nuraini, (2025) shows that an adaptive organizational structure can strengthen the influence of digital leadership on service effectiveness through effective coordination and rapid decision-making. Similar findings were presented by Ingsih, (2024), who stated that digital competence positively effect on service effectiveness and that this effect is optimized when supported by a clear and responsive organizational structure.

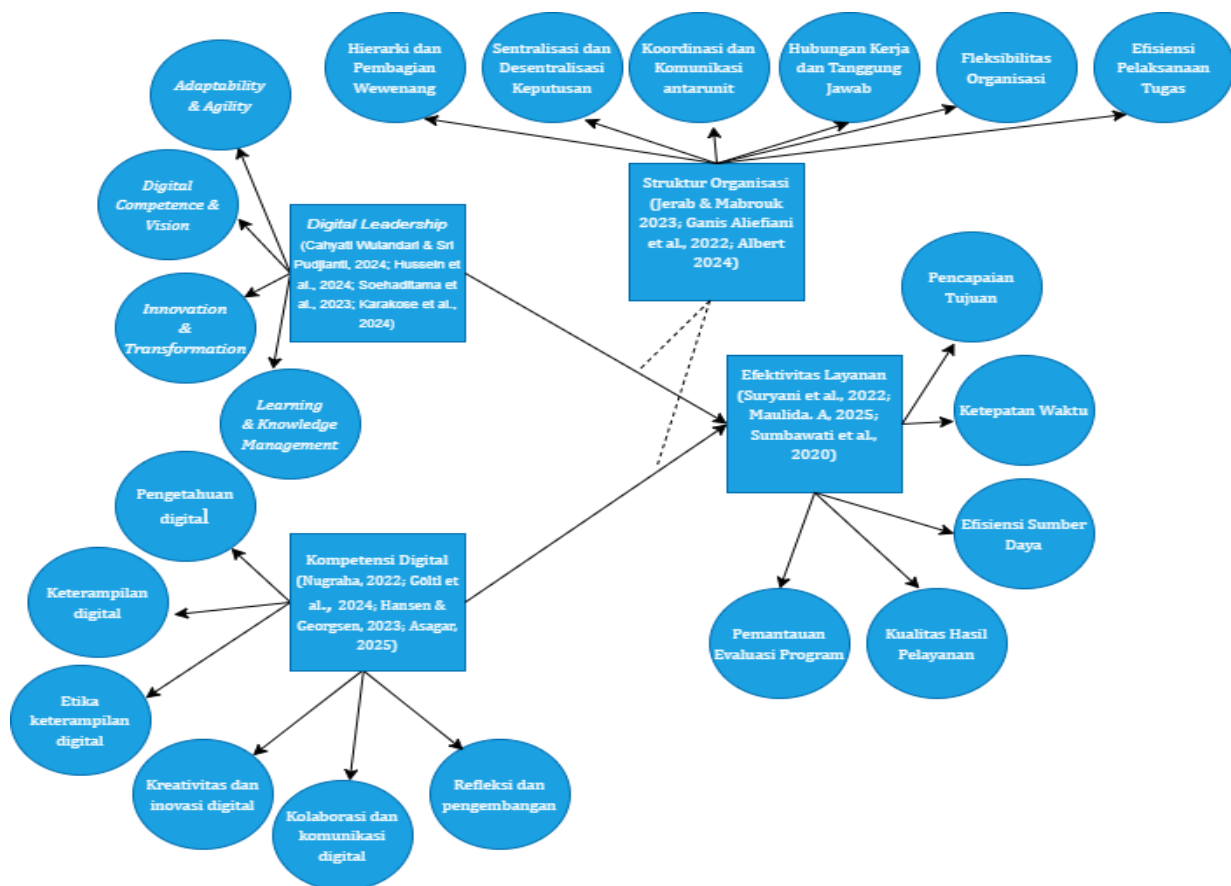


Figure 2 Research Paradigm

H₁ : Digital Leadership (X1) is suspected to have a positive effect on Service Effectiveness (Y).

H₂ : Digital Competence (X2) is suspected to have a positive effect on Service Effectiveness (Y).

H₃ : It is suspected that Organizational Structure (M) moderates the positive effect of Digital Leadership (X1) on Service Effectiveness (Y).

H₄ : It is suspected that Organizational Structure (M) moderates the positive effect of Digital Competence (X2) on Service Effectiveness (Y).

4. Results Method

This research employs a quantitative method with a confirmatory design to analyze the effect of digital leadership and digital competence on service effectiveness through organizational structure as a moderating variable. The research location is in Ciasem Subdistrict, Subang Regency. The research period, from the preparation stage to the final report, was from October 2025 to February 2026, with a population of 106 subdistrict and village government officials.

Using proportioned stratified random sampling with the Slovin formula at a 3% error rate, The use of this relatively small margin of error is intended to achieve a higher level of accuracy in representing the population, so that the research results are expected to have a higher level of reliability. In addition, the selection of a 3% margin of error is based on the research requirements, which demand precision in measuring respondents perceptions regarding the effectiveness of public services, resulting in a sample of 97 respondents was obtained. Primary data was gathered through a questionnaire using a five-point Likert scale measuring the dimensions of adaptability, digital vision, data literacy, and service quality. Data analysis was done with the Partial Least Squares Structural Equation Modeling (PLS-SEM) method using SmartPLS 4.0 software, which included evaluation of the outer model (convergent validity, construct reliability, and discriminant validity) and the inner model for hypothesis testing.

Table 1 *Operational Variabel*

Indicators	Theoretical Sources	Indicator	Theoretical Sources
Digital Leadership		Digital Competency	
1. Adaptability 2. Agility	Cahyati Wulandari & Sri Pudjianti, (2024)	1. Mastery of digital technology tools 2. Understanding of digital tool functions	Nugraha, (2022)
3. Digital Vision 4. Data-Driven Decision Making	Hussein et al. (2024); Soehaditama et al. (2023)	3. Data Information Management 4. Operation of work applications	Görtl et al. (2024)
5. Technological Innovation 6. Changes in digital work culture	Karakose et al. (2024)	5. Digital Security Ethics 6. Data Privacy Compliance	Hansen & Georgsen (2023)
7. Knowledge Management 8. Facilitating digital training	Cahyati Wulandari & Sri Pudjianti, (2024)	7. Inovation Creation 8. Digital Conten	Asagar (2025)
		9. Digital Collaboration 10. Digital Communication	Görtl et al. (2024)
		11. Reflection 12. Development	Hansen & Georgsen (2023); Asagar (2025)
Organizational Structural		Service Effectiveness	
1. Division of Responsibilities 2. Clarity of Job Description	Ganis Aliefiani et al. (2022)	1. Achievement of Result 2. Service Target Compliance	Suryani et al. (2022)
3. Decision Making 4. Employee Participation	Jerab & Mabrouk, (2023)	3. Timeliness of Implementation 4. Speed of Service Completion	Sumbawati et al. (2020)

5. Inter-unit Coordination	Albert, (2024)	5. Efisiensi of Resource Utilization	Maulida. A. (2025)
6. Information Exchange		6. Minimal Waste	
7. Structural Flexibility	Jerab & Mabrouk, (2023)	7. Quality of Result	Suryani et al. (2022);
8. Adaptation to Change		8. Fairness in Service	Maulida. A. (2025)
Indicators	Theoretical Sources	Indicator	Theoretical Sources
9. Working Relationships	Ganis Aliefiani et al. (2022)	9. Evaluation of Implementation	Sumbawati et al. (2020)
10. Employee Cooperation		10. Follow-up Improvements	
11. Task Efficiency	Albert, (2024)		
12. Task Suitability			

The operational table above is used as a basis for creating a questionnaire, which will be used to collect primary data from respondents.

5. Research Results and Discussion

5.1 Research Results

Respondent Characteristics

Research respondents were selected according to research criteria to ensure relevant and representative data. The presentation of respondent characteristics provides an overview of their demographic and administrative profiles.

Table 2 *Respondent Characteristics*

No	Respondent Characteristics	Frequency	Percentage
1	Gender		
	a. Male	55	57%
	b. Female	42	43%
	Total	97	100%
2	Age		
	<25 years old	2	2%
	25-35 years old	36	37%
	36-45 years old	31	32%
	>45 years old	28	29%
	Total	97	100%
3	Employee Status		
	Permanent	66	68%
	Temporary	31	32%
	Total	97	100%
4	Length of Service		
	<2 years old	7	7%
	2-5 years old	25	26%
	>5 years old	65	67%
	Total	97	100%

The number of research respondents was 97 people, consisting of 55 men (57%) and 42 women (43%). The majority were of productive age, 25–35 years (37%) and 36–45 years (32%). Most were permanent

employees (68%) with more than 5 years of work experience (67%), indicating that the respondents were experienced.

Descriptive Analysis

According to Hair et al., (2021) descriptive analysis is used to describe respondents' perceptions of research variables through mean, minimum, and maximum values. Variable levels are determined using a scale ranging from Very Poor (97-174), Not Good (175-252), Fairly Good (252-330), Good (331-408), and Very Good (409-485) based on valid and reliable indicators, and the results are presented in the following figure.



Figure 3 Scale Range Digital Leadership



Figure 5 Scale Range Organizational Structural

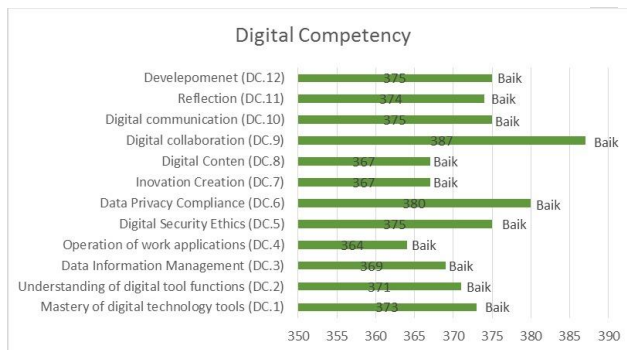


Figure 4 Scale Range Digital Competency

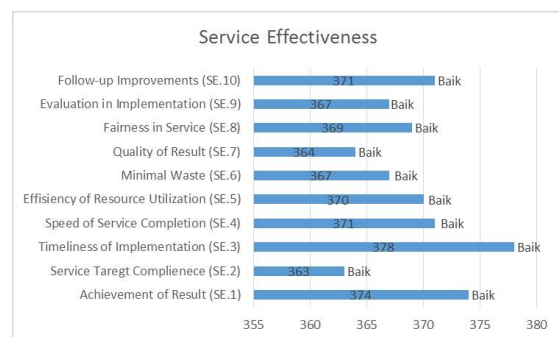


Figure 6 Scale Range Service Effectiveness

Based on descriptive analysis using the scale range method, all research variables were in the Good category, indicating that the implementation of Digital Leadership, Digital Competence, Organizational Structure, and Service Effectiveness in Ciasem Subang District was considered to be running well by respondents.

Verificative Analysis

Measurement Model Evaluation (Outer Model)

1. Convergent Validity

According to Hair et al., (2021) convergent validity is tested through Outer Loading values. Indicators are declared valid if they have an Outer Loading value > 0.70.

Table 3 Convergent Validity

Indicators	Outer Loading	Indicators	Outer Loading	Indicators	Outer Loading	Indicators	Outer Loading
DL.1	0.798	DC.1	0.762	OS.1	0.849	SE.1	0.810
DL.2	0.827	DC.2	0.805	OS.2	0.825	SE.2	0.771
DL.3	0.772	DC.3	0.772	OS.3	0.842	SE.3	0.832
DL.4	0.838	DC.4	0.759	OS.4	0.797	SE.4	0.858
DL.5	0.794	DC.5	0.835	OS.5	0.887	SE.5	0.782

DL.6	0.713	DC.6	0.728	OS.5	0.890	SE.6	0.791
DL.7	0.721	DC.7	0.779	OS.7	0.848	SE.7	0.791
DL.8	0.713	DC.8	0.754	OS.8	0.816	SE.8	0.834
		DC.9	0.736	OS.9	0.843	SE.9	0.838
		DC.10	0.743	OS.10	0.820	SE.10	0.828
				OS.11	0.837		
				OS.12	0.872		

Based on table 3, it can be seen that all items in the Digital Leadership, Digital Competence, Organizational Structure, and Service Effectiveness variables are valid because they have outer loading values > 0.70. However, there are two indicators having outer loading values below the specified limit, so these indicators were removed from the model.

2. Construct Reliability

According to Hair et al., (2021) construct reliability is tested through Composite Reliability and Cronbach's Alpha values, with criteria > 0.70 and Average Variance Extracted (AVE) > 0.50 indicating good reliability.

Table 4 *Construct Reliability*

Variable	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	AVE
Digital Leadership	0.904	0.910	0.922	0.598
Digital Competency	0.923	0.939	0.935	0.663
Service Effectiveness	0.943	0.947	0.951	0.590
Organizational Structural	0.965	1.001	0.967	0.713

All research variables have Cronbach's Alpha and Composite Reliability values > 0.70 and AVE > 0.50. Therefore, all instruments are declared reliable with excellent internal reliability and are ready for more analysis.

Validitas Deskriminan

1. Heterotrait-monotrait (HTMT)

According to Hair et al., (2021) discriminant validity was tested using the Heterotrait–Monotrait Ratio (HTMT), which was considered fulfilled if the value between constructs was below 0.90.

Table 5 *Heterotrait-monotrait (HTMT)*

Construct	Digital Leadership	Service Effectiveness	Digital Competency	Organizational Structural
Digital Leadership				
Digital Competency	0.338			

Service			
Effectiveness	0.150	0.243	
Organizational			
Structural	0.160	0.147	0.300

The HTMT test results showed that all values between constructs were below 0.90, indicating that each construct was clearly different and that discriminant validity was fulfilled.

2. Fornell-Lacker

According to Hair et al., (2021) Discriminant validity was also tested using the Fornell-Larcker criteria, namely by comparing the square root of AVE with the correlation between constructs. The test results are presented in the following table.

Table 6 Fornell Lacker

Construct	Digital Leadership	Service Effectiveness	Digital Competency	Organizational Structural
Digital Leadership	0.773			
Digital Competency	0.317	0.814		
Service Effectiveness	0.048	0.248	0.768	
Organizational Structural	0.138	0.170	0.311	0.844

The Fornell-Larcker test results show that all constructs are discriminantly valid, because the square root of the AVE for each construct exceeds the correlation between constructs, so there is no conceptual overlap.

Measurement Model Evaluation (Inner Model)

Figure Model

According to Hair et al., (2021) the research model was used to test the causal relationships between latent constructs based on the Partial Structural Equation Modeling (PLS-SEM) approach.

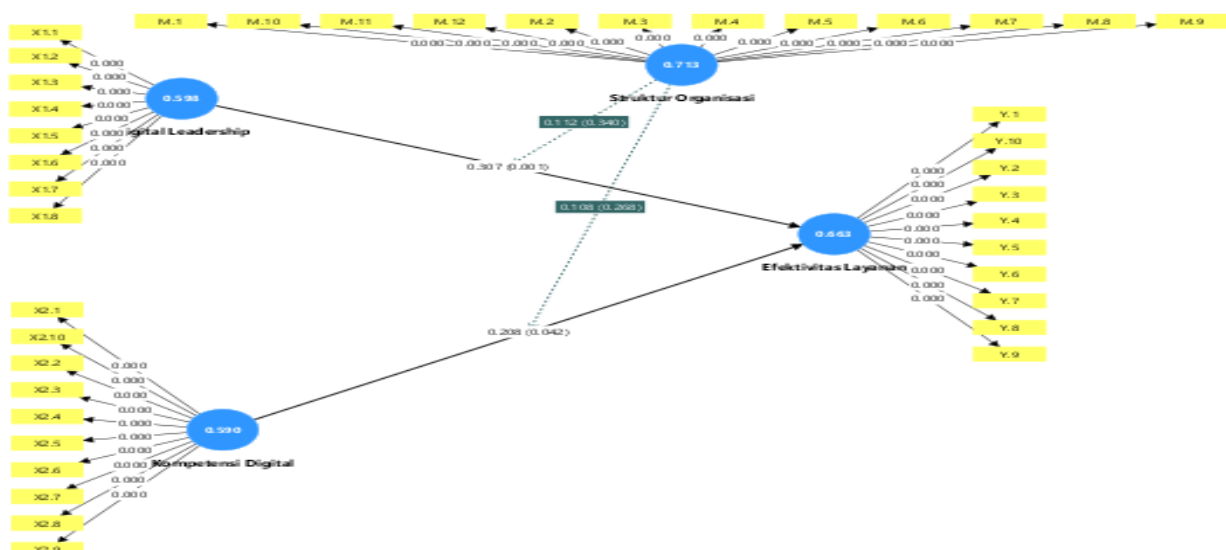


Figure 7 *Figure Model*

Figure 7 shows the research model from SmartPLS 4, which illustrates the relationship between latent constructs and their indicators, as well as the relationship between constructs, with outer loading values to assess the contribution of each indicator.

Direct Effects

Menurut Hair et al., (2021) direct effect shows a causal relationship between the independent variable and the dependent variable without involving other variables.

Table 7 *Direct Effects*

Variable Relationships			T-Statistic	P-Value
Digital Leadership	→	Service Effectiveness	3.420	0.001
Variable Relationships			T-Statistic	P-Value
Digital Competency	→	Service Effectiveness	2.037	0.042

Based on Table 7, the direct effect of Digital Leadership (X1) and Digital Competence (X2) on Service Effectiveness (Y) shows a t-statistic value > 1.96 and a p-value < 0.05, indicating that both variables have a positive and significant effect on Service Effectiveness.

Indirect Effects

Menurut Hair et al., (2021) indirect effect describes the influence of an independent variable on a dependent variable that occurs through the presence of another variable in the model.

Table 8 *Indirect Effects*

Variable Relationships			T-Statistic	P-Value
Digital Leadership	→	Service Effectiveness	0.955	0.340
Moderated by		Organizational Structure		
Digital Competency	→	Service Effectiveness	1.107	0.268
Moderated by		Organizational Structure		

Based on Table 7, the indirect effect of Organizational Structure (M) as a moderating variable shows a t-statistic value < 1.96 and a p-value > 0.05, indicating that Organizational Structure (M) is unable to moderate the effect of Digital Leadership (X1) and Digital Competence (X2) on Service Effectiveness (Y).

Coefficient of Determination (R^2)

According to Hair et al., (2021) The coefficient of determination (R^2) value is used to assess the extent to which exogenous constructs can explain the variance of endogenous constructs in the PLS-SEM structural model. The

R^2 value indicates the explanatory power of the model, with criteria values of 0.75 (strong), 0.50 (moderate), and 0.25 (weak).

Table 9 *Coefficient of Determination (R^2)*

Variable	R^2	R^2 adjusted
Service Effectiveness	0.186	0.141

The coefficient of determination (R^2) value of 0.186 indicates that the independent variables in this study account for only 18.6% of the variation in the dependent variable, while the remaining 81.4% is influenced by other variables not included in the research model. This value indicates that the model has relatively weak explanatory power.

Hypothesis Testing

According to Hair et al., (2021) The relationship between latent variables is considered significant if the t-statistic value is > 1.96 (5% significance level) or the p-value is < 0.05 . (Hair et al., 2021:197–202).

Table 10 *Hypothesis Testing*

Variable Relationships	T-Statistic	P-Value	Description
Digital Leadership → Service Effectiveness	3.420	0.001	H_0 = Rejected H_1 = Accepted
Digital Competency → Service Effectiveness	2.037	0.042	H_2 = Accepted
Variable Relationships	T-Statistic	P-Value	Description
Digital Leadership → Service Effectiveness Moderated by Organizational Structure	0.955	0.340	H_3 = Rejected
Digital Competency → Service Effectiveness Moderated by Organizational Structure	1.107	0.268	H_4 = Rejected

The hypothesis testing results indicate that digital leadership and digital competence have a positive and significant effect on service effectiveness because they have t-statistic values > 1.96 and p-values < 0.05 . Meanwhile, organizational structure as a moderating variable has t-statistic values < 1.96 and p-values > 0.05 . This indicates that organizational structure is unable to moderate (strengthen or weaken) the effect of digital leadership and digital competence on service effectiveness.

Evaluasi Prediktif Kelayakan Model

Effect Size (F^2)

According to Hair et al., (2021) explains that effect size (f^2) is used to measure the extent of each exogenous construct's impact on the endogenous construct. An f^2 value of 0.35 indicates a large effect, 0.15 indicates a moderate effect, and 0.02 indicates a small effect.

Table 11 *Effect Size (F^2)*

Variable Relationships	F^2
------------------------	-------

Digital Leadership → Service Effectiveness	0,113
Digital Competency → Service Effectiveness	0,048
Digital Leadership → Service Effectiveness Moderated by Organizational Structure	0,016
Digital Competency → Service Effectiveness Moderated by Organizational Structure	0,016

The results of the effect size (f^2) test show that digital leadership has a small to moderate effect on service effectiveness ($f^2 = 0.113$), while digital competence shows a small effect ($f^2 = 0.048$). Meanwhile, the moderating role of organizational structure in the relationship between digital leadership and digital competence on service effectiveness shows a very weak contribution ($f^2 = 0.016$ each), so that the resulting moderating effect is not yet significant in improving service effectiveness.

Predictive Relevance (Q^2)

According Chin (2010) in Hair (2021) the predictive relevance value (Q^2) is used to assess the predictive ability of structural models against observational data. A model is said to have predictive relevance if the $Q^2 > 0$. (Hair et al., 2021:212-214).

Table 12 *Predictive Relevance (Q^2)*

Endogenous Variable	R²	Calculation Q^2	Q^2
Service Effectiveness	0.186	$1 - (1 - 0,186)$	0.186

The Q-Square (Q^2) value is calculated manually based on the R-Square value of the endogenous variable of service effectiveness. The calculation results show a Q^2 value of 0.186 (> 0). This indicates that the model has predictive relevance. Furthermore, since the value falls into the moderate category, it can be concluded that the model is sufficiently capable of predicting the endogenous variable

Model (FIT)

According to Hair et al., (2021) Model fit testing was conducted to assess the extent to which the research model represented empirical data. In PLS-SEM, evaluation used SmartPLS indicators, particularly SRMR and supported by NFI, with the results presented in the following table.

Tabel 13 *Model FIT*

Model FIT	Value	Criteria
SRMR	0.077	< 0.08
NFI	0.703	> 0.90

Based on Table 12, SRMR=0.077 (< 0.08) indicates that the model fit is satisfied, while NFI=0.703 (< 0.90) is a supporting indicator in PLS-SEM.

5.2 Discussion

5.2.1 The Effect of Digital Leadership on Service Effectiveness

Digital Leadership on Service Effectiveness has a T-Statistic value of 3.420 (> 1.96) and a P-Value of 0.001 (< 0.05). This indicates that Digital Leadership has a positive and significant effect on Service Effectiveness. This means that the better the digital leadership, the more the service effectiveness will increase significantly. This

finding is in line with Fitriani, (2024) who asserts that digital leadership can improve the efficiency, work quality, and service effectiveness of public organizations.

5.2.2 The Effect Of Digital Competency on Service Effectiveness

Digital Competence on Service Effectiveness has a T-Statistic value of 2.037 (> 1.96) and a P-Value of 0.042 (< 0.05). These results indicate that Digital Competence has a positive and significant effect on Service Effectiveness. The higher the digital competence, the more effective the service provided. These research results are in line with Emilia, (2025) research, which found that digital competence has a significant effect on employee performance. Alaina et al., (2025) which emphasizes that mastery of digital technology and critical thinking skills play an important role in improving the performance and effectiveness of public services.

5.2.3 The Effect of Digital Leadership on Service Effectiveness Moderated by Organizational Structure

Digital Leadership on Service Effectiveness Moderated by Organizational Structure has a T-Statistic value of 0.955 (< 1.96) and a P-Value of 0.340 (> 0.05). This indicates that Organizational Structure is unable to moderate (strengthen or weaken) the influence of Digital Leadership on Service Effectiveness. This is believed to be due to the bureaucracy's rigid and hierarchical nature, which hinders flexibility in the implementation of digital transformation. Furthermore, the suboptimal level of digital governance maturity means that the organizational structure is not yet capable of effectively strengthening the relationships between variables. Consequently, a more adaptive organizational structure is needed to support digital transformation in the public sector. These results can be explained by the research of Parjadinata et al., (2020) which states that organizational structure and leadership have a direct effect on service effectiveness. This finding reinforces the results of this study that organizational structure plays a greater role as an independent factor than as a variable that strengthens the relationship between leadership and service effectiveness.

5.2.4 The Effect of Digital Competency on Service Effectiveness Moderated by Organizational Structure

Digital Competence on Service Effectiveness Moderated by Organizational Structure has a T-Statistic value of 1.107 (< 1.96) and a P-Value of 0.268 (> 0.05). These results indicate that Organizational Structure is unable to moderate (strengthen or weaken) the influence of Digital Competence on Service Effectiveness. These results can be explained by the research of Rahmad et al., (2023) which states that organizational structure and human resource capabilities have a direct effect on service effectiveness. These findings indicate that organizational structure acts as an independent factor that influences service effectiveness, rather than as a variable that strengthens the relationship between individual capabilities, including digital competence, and service effectiveness.

6. Conclusion

Based on descriptive analysis, Digital Leadership, Digital Competence, Organizational Structure, and Service Effectiveness in the Ciasem Subdistrict Government apparatus are generally in the good category. These findings indicate that leadership, apparatus competence, and organizational support have been optimal in supporting public services.

Based on hypothesis testing, Digital Leadership and Digital Competence were proven to have a positive effect on Service Effectiveness, confirming that the quality of digital leadership and the mastery of digital competence among officials are key factors in improving service effectiveness. However, Organizational Structure was not proven to moderate the influence of Digital Leadership or Digital Competence on Service Effectiveness, meaning that the influence of these two variables is direct and does not depend on the moderating role of organizational structure.

7. Implications

The results of the study show that in the Digital Leadership variable, the aspects of changes in digital work culture and facilitating digital training still need to be strengthened so that digital leadership does not only focus on the use of technology, but also on the formation of a digital work culture and the development of apparatus capacity. In the Digital Competence variable, the low contribution of the digital communication indicator indicates the need to improve the ability of officials to communicate and coordinate effectively through digital media.

Furthermore, in the Organizational Structure variable, the employee participation indicator shows that the involvement of officials in the decision-making process and implementation of organizational tasks still needs to be improved. Meanwhile, in the Service Effectiveness variable, the service target suitability indicator emphasizes the need for better alignment between service targets and community needs so that public services can be more targeted.

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Conflict Of Interest

The authors declare no conflict of interest regarding the paper's publication.

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