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DETERMINANTS OF THE EFFECTIVENESS OF REGIONAL FINANCIAL MANAGEMENT WITH INFORMATION TECHNOLOGY AS A MODERATING VARIABLE

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Abstract

This study aims to examine the effect of communication (X_1), resources (X_2), disposition (X_3), and bureaucratic structure (X_4) on the effectiveness of regional financial management (Y), as well as to test the moderating role of information technology (Z). This study employs a quantitative approach using a survey method. Data were analyzed using multiple linear regression and Moderated Regression Analysis (MRA) with SPSS version 25. The results indicate that disposition and bureaucratic structure have a positive and significant effect on the effectiveness of regional financial management, while communication and resources do not show a significant effect. Furthermore, information technology is found to moderate only the relationship between bureaucratic structure and financial management effectiveness, indicating its role in strengthening structural governance mechanisms. However, information technology does not moderate the effects of communication, resources, or disposition. These findings highlight that the effectiveness of regional financial management is primarily determined by the behavioral and structural aspects of the organization. Theoretically, this study contributes to the development of public sector governance by emphasizing the interaction between organizational structure and technological support. Practically, the results suggest that optimizing bureaucratic structures supported by information technology can enhance financial management effectiveness.

Keywords *: Effectiveness of Regional Financial Management; Communication; Resources; Disposition;, Bureaucratic Structure; Information Technology.*

Abstrak

Penelitian ini bertujuan untuk mengkaji pengaruh komunikasi (X_1), sumber daya (X_2), disposisi (X_3), dan struktur birokrasi (X_4) terhadap efektivitas pengelolaan keuangan daerah (Y), serta untuk menguji peran moderasi teknologi informasi (Z). Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei. Data dianalisis menggunakan regresi linier berganda dan Analisis Regresi Moderasi (MRA) dengan SPSS versi 25. Hasil menunjukkan bahwa disposisi dan struktur birokrasi memiliki pengaruh positif dan signifikan terhadap efektivitas pengelolaan keuangan daerah, sedangkan komunikasi dan sumber daya tidak menunjukkan pengaruh yang signifikan.

Selain itu, teknologi informasi ditemukan hanya memoderasi hubungan antara struktur birokrasi dan efektivitas pengelolaan keuangan, yang menunjukkan perannya dalam memperkuat mekanisme tata kelola struktural. Namun, teknologi informasi tidak memoderasi efek komunikasi, sumber daya, atau disposisi. Temuan ini menyoroti bahwa efektivitas pengelolaan keuangan daerah terutama ditentukan oleh aspek perilaku dan struktural organisasi. Secara teoritis, penelitian ini berkontribusi pada pengembangan tata kelola sektor publik dengan menekankan interaksi antara struktur organisasi dan dukungan teknologi. Secara praktis, hasilnya menunjukkan bahwa mengoptimalkan struktur birokrasi yang didukung oleh teknologi informasi dapat meningkatkan efektivitas pengelolaan keuangan..

Keywords *: Efektivitas Pengelolaan Keuangan Daerah; Komunikasi; Sumber Daya; Disposisi; Struktur Birokrasi dan Teknologi Informasi.*

JEL Classification : H83, H61, D73, O33

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INTRODUCTION

Regional financial management constitutes a fundamental pillar in the implementation of fiscal decentralization, as mandated by Law Number 23 of 2014. Effective budget management serves as a key indicator of the success of sustainable regional development. To achieve this objective, regional governments are required to implement the principles of Good Governance, as stipulated in Government Regulation Number 12 of 2019, ensuring that public funds are managed transparently, efficiently, and accountably.

In response to these governance demands, the Central Government introduced the Regional Government Information System (Sistem Informasi Pemerintahan Daerah—SIPD) through Minister of Home Affairs Regulation Number 70 of 2019. This system functions as a strategic instrument to enhance transparency and public accountability, particularly through the implementation of the Value for Money (VFM) concept. Furthermore, SIPD is designed to minimize budget deviations and facilitate real-time integration and synchronization of financial data between central and regional governments.

The full implementation of SIPD in Pasuruan Regency, initiated in 2024, aims to improve transparency, accountability, and the overall effectiveness of regional financial management. However, empirical data on revenue realization from 2019 to 2024 reveal fluctuating performance, recorded at 98% (2019), 90% (2020), 103% (2021), 101% (2022), 98% (2023), and 107% (2024). This pattern indicates that improvements in revenue performance have not been accompanied by consistent stability. Several constraints persist, including technical disruptions, network instability, communication barriers, limited human resource competencies, and continuous system updates. These conditions suggest that SIPD implementation remains suboptimal and is still undergoing a process of refinement.

These challenges indicate that the success of an information system is not solely determined by technological sophistication but is also highly dependent on the effectiveness of policy implementation. According to George C. Edward III's policy implementation theory, successful implementation is influenced by four key determinants: communication, resources, disposition, and bureaucratic structure. These variables provide a comprehensive analytical framework for understanding the persistent challenges in achieving effective regional financial management in Pasuruan Regency.

From an empirical perspective, prior studies present mixed findings. Dewi et al. (2023) demonstrate that clarity of standard operating procedures (SOPs) and the commitment (disposition) of implementers are critical factors in ensuring system effectiveness. In contrast, Herawan et al. (2021) highlight that internal bureaucratic constraints remain significant obstacles that hinder system performance, despite the presence of formal regulatory frameworks. These inconsistencies underscore the importance of further investigation into both organizational and behavioral dimensions of policy implementation.

The novelty of this study lies in its focus on Pasuruan Regency, the use of recent data, specific respondent characteristics, and the integration of four key variables communication, resources, disposition, and bureaucratic structure—affecting the effectiveness of regional financial management, with information technology positioned as a moderating variable. This approach responds to previous findings by Fitriyani et al. (2022), who conceptualize information technology as a performance-enhancing tool, and Triwahyuni and Fatmawati (2024), who argue that technology may, under certain conditions, reduce effectiveness due to technical unpreparedness and suboptimal system updates.

This study contributes to the literature in three primary ways. First, from a theoretical perspective, it enriches the discourse on public sector information systems and policy implementation by integrating organizational and technological dimensions in explaining the effectiveness of SIPD. Second, from a practical standpoint, it provides insights for regional governments and SIPD operators to enhance communication quality, strengthen human resource competencies, and optimize system utilization to improve financial management performance. Third, from a policy perspective, the findings offer a basis for policymakers to formulate more adaptive, accountable, and sustainable strategies for the implementation of regional financial management systems in the context of digital governance.

REVIEW LITERATURE AND HYPOTHESES DEVELOPMENT

Agency Theory

Agency theory explains the contractual relationship between principals and agents, in which the principal delegates authority to the agent to perform certain tasks (Jensen & Meckling, 1976; Meckling, 2003). This relationship is based on assumptions related to human behavior, organizational structure, and information asymmetry (Sutisna et al., 2024).

In the context of regional government, the central government acts as the principal, while local governments function as agents responsible for managing public resources. This relationship often gives rise to information asymmetry, where agents possess more detailed financial information than principals, thereby increasing the risk of moral hazard.

To mitigate this issue, effective monitoring and reporting mechanisms are required. The Regional Government Information System (SIPD) plays a crucial role as a control and transparency instrument to reduce information asymmetry and enhance public accountability (Luayyi, 2010; Mardiasmo, 2018). Thus, agency theory provides a foundation for understanding the importance of governance mechanisms and information systems in improving financial management effectiveness.

Good Governance

Good governance refers to a system of public administration characterized by transparency, accountability, participation, efficiency, and the rule of law (UNDP, 1997). It emphasizes the responsible management of public resources and the delivery of services in a manner that meets societal needs. In the Indonesian context, the implementation of good governance in regional financial management is regulated under Law No. 23 of 2014 and Government Regulation No. 12 of 2019. The adoption of SIPD represents a concrete effort to enhance transparency and accountability through the digitalization of financial processes.

Therefore, good governance serves as a theoretical basis for evaluating how organizational and technological factors contribute to improving the effectiveness of regional financial management.

Policy Implementation Theory (Edward III)

According to Edward III, the success of policy implementation is determined by four key factors: communication, resources, disposition, and bureaucratic structure. Communication refers to the clarity and consistency of policy transmission. Resources include the availability of competent personnel, authority, and supporting infrastructure. Disposition reflects the commitment and attitude of implementers, while bureaucratic structure relates to standard operating procedures and coordination mechanisms. These factors operate simultaneously, and weaknesses in any dimension may hinder effective policy implementation. Therefore, these four variables are adopted as the main independent variables in this study to analyze the effectiveness of regional financial management.

Regional Government Information System (SIPD)

The Regional Government Information System (SIPD) is an integrated digital platform mandated by Law No. 23 of 2014 and regulated through Minister of Home Affairs Regulation No. 70 of 2019. It is designed to support transparent, accountable, and real-time management of regional financial and development data.

SIPD integrates planning, budgeting, administration, and reporting processes into a unified system, thereby reducing data redundancy and improving coordination between central and local governments. From a theoretical perspective, SIPD reflects the role of information systems as strategic tools for enhancing operational efficiency and decision-making quality (Laudon & Laudon, 2020; Gelinas et al., 2011).

Information Technology

The Technology Acceptance Model (TAM), developed by Davis (1989), explains user acceptance of information systems based on perceived usefulness and perceived ease of use. These factors influence users' attitudes and behavioral intentions toward adopting technology. In the context of regional financial management, the effectiveness of SIPD depends on how users perceive the system. If the system is considered useful and easy to use, adoption will increase, leading to improved performance. Conversely, limited infrastructure and low digital literacy may hinder effective utilization.

Therefore, information technology is positioned as a moderating variable in this study, as it may strengthen or weaken the relationship between organizational factors and financial management effectiveness.

Conceptual Framework

The conceptual framework used in this study is as follows.

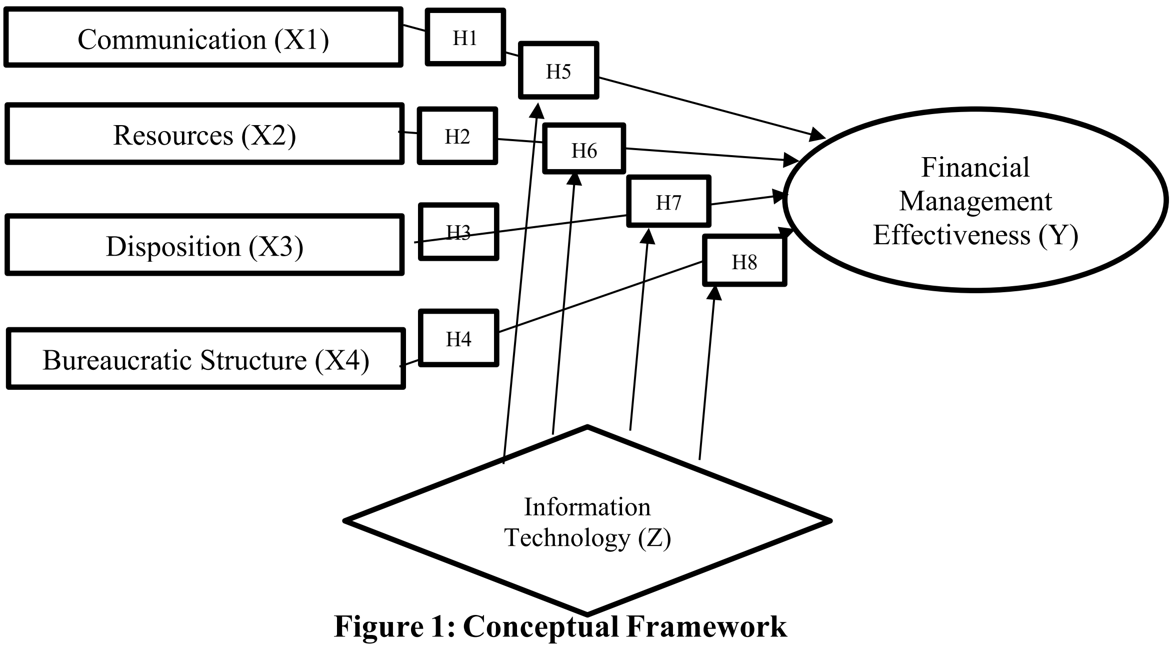


Figure 1: Conceptual Framework
Source: Author, 2025

The Influence of Communication on the Effectiveness of Regional Financial Management

Communication is a fundamental dimension in George C. Edward III's policy implementation theory, which emphasizes that successful policy implementation is highly dependent on the clarity, consistency, and openness of information flow among policy actors (Edward III, 1980). In the context of regional financial management, effective communication within bureaucratic structures facilitates the accurate transmission of instructions, enhances coordination, and minimizes information distortion that may hinder performance effectiveness. Empirical studies support the importance of communication. Fahzura and Najamudin (2022) find that effective communication across organizational levels supports the implementation of SIPD in the West Aceh Regency Library and Archives Service. Inzany et al. (2022) also report that communication from the Ministry of Home Affairs positively influences the effectiveness of regional financial management through SIPD. Similarly, Siregar et al. (2023) emphasize that communication between superiors and subordinates plays a critical role in ensuring the smooth implementation of SIPD. However, contrasting findings are presented by Balqis et al. (2021), who report that internal communication did not significantly affect financial management effectiveness due to suboptimal communication practices within the organization. Despite generally adequate communication, its inconsistency limited its impact. Based on theoretical and empirical considerations, it is argued that communication remains a critical determinant of effectiveness, particularly when it is delivered clearly, consistently, and in a timely manner. Therefore, the following hypothesis is proposed:

H1: Communication Influences The Effectiveness Of Regional Financial Management.

The Influence of Resources on the Effectiveness of Regional Financial Management

According to Edward III (1980), resources encompass human resources, financial capacity, technological support, and infrastructure required for effective policy implementation. Adequate resources enable local governments to manage financial processes more transparently, efficiently, and accountably. Empirical evidence highlights the importance of resource adequacy. Balqis et al. (2021) identify human and technical resource constraints as key barriers to effective SIPD implementation. Triwahyuni and Fatmawati (2024) further note that limited technological infrastructure and insufficient human resource competency hinder the optimization of financial administration. In addition, Inzany et al. (2022) emphasize that the success of regional financial planning and management is strongly influenced by both human and non-human resource adequacy. Based on these findings, it is argued that resource availability alone is insufficient unless supported by adequate competency and effective utilization. Nevertheless, theoretically, better resource adequacy is expected to improve financial management effectiveness. Thus, the following hypothesis is proposed:

H2: Resources Influence The Effectiveness Of Regional Financial Management.

The Influence of Disposition on the Effectiveness of Regional Financial Management

Disposition, defined as the commitment, integrity, and attitude of policy implementers, is a key determinant of policy implementation success (Edward III, 1980). In the context of regional financial management, a positive disposition supports transparency, accountability, and compliance with established procedures. Empirical findings demonstrate the importance of disposition. Balqis et al. (2021) reveal that weak commitment and low awareness among officials hinder SIPD implementation. Triwahyuni and Fatmawati (2024) also identify disposition-related internal barriers as factors slowing financial administration processes. Conversely, Dewi et al. (2023) find that strong commitment and support from officials significantly enhance SIPD effectiveness. These findings suggest that the effectiveness of financial management is strongly influenced by the behavioral and attitudinal characteristics of implementers. Therefore, it is argued that a higher level of commitment, integrity, and responsibility among officials will improve effectiveness. Accordingly, the following hypothesis is proposed:

H3: Disposition Influences The Effectiveness Of Regional Financial Management.

The Influence of Bureaucratic Structure on the Effectiveness of Regional Financial Management

Edward III (1980) posits that bureaucratic structure, including clear standard operating procedures (SOPs), well-defined authority, and effective coordination mechanisms, is essential for successful policy implementation. In regional financial management, an inefficient or overly rigid structure may hinder performance, whereas a clear and adaptive structure enhances accountability and decision-making efficiency. Empirical studies support this argument. Triwahyuni and Fatmawati (2024) find that bureaucratic constraints reduce the effectiveness of SIPD implementation. Wilansari et al. (2022) identify weak coordination and lack of data standardization as major structural barriers. Conversely, Dewi et al. (2023) demonstrate that a well-structured bureaucracy significantly improves financial management performance. Based on these findings, it is argued that an efficient, coordinated, and adaptive bureaucratic structure enhances financial management effectiveness. Thus, the following hypothesis is proposed:

H4: Bureaucratic Structure Influences The Effectiveness Of Regional Financial Management.

The Moderating Role of Information Technology on Communication

Information technology plays a crucial role in enhancing communication effectiveness within modern bureaucratic systems. The Technology Acceptance Model (TAM) proposed by Davis (1989) explains that perceived usefulness and ease of use determine technology adoption and its impact on performance. Empirical evidence suggests that information technology strengthens communication effectiveness. Siregar et al. (2023) find that communication supported by technology improves readiness in SIPD implementation. Fitriani and Solikhin (2024) also show that technology enhances coordination and reporting quality. Therefore, it is argued that information technology strengthens the influence of communication on financial management effectiveness by improving information accuracy, speed, and coordination.

H5: Information Technology moderates the effect of communication on the effectiveness of regional financial management.

The Moderating Role of Information Technology on Resources

In the digital era, the effectiveness of resources is closely linked to technological support. Even adequate resources may not yield optimal outcomes without effective

information systems. Triwahyuni and Fatmawati (2024) identify technological limitations as a key barrier, while Nasution (2023) finds that information technology improves financial reporting quality even under resource constraints. Thus, information technology is expected to enhance the effectiveness of resource utilization by improving efficiency and integration.
H6: Information Technology moderates the effect of resources on the effectiveness of regional financial management.

The Moderating Role of Information Technology on Disposition
Disposition reflects the behavioral dimension of policy implementation. Information technology can reinforce this dimension by increasing transparency, accountability, and control mechanisms. Dewi et al. (2023) demonstrate that strong commitment improves SIPD implementation, while Fitriani and Solikhin (2024) show that technology strengthens governance quality. Therefore, information technology is expected to reinforce the positive impact of disposition on financial management effectiveness.
H7: Information Technology moderates the effect of disposition on the effectiveness of regional financial management.

Information Technology Moderates the Effect of Bureaucratic Structure on the Effectiveness of Regional Financial Management
Information technology enables the digital transformation of bureaucratic processes through automation, integration, and standardization. This transformation enhances the effectiveness of bureaucratic structures by reducing procedural inefficiencies. Wilansari et al. (2022) identify structural weaknesses due to lack of integration, while Fitriani and Solikhin (2024) show that technology improves coordination and governance effectiveness. Thus, information technology is expected to strengthen the role of bureaucratic structure in enhancing financial management effectiveness.
H8: Information Technology Moderates the Effect of Bureaucratic Structure on the Effectiveness of Regional Financial Management

RESEARCH METHODS

This study employs a quantitative approach with an explanatory research design aimed at examining causal relationships among variables through hypothesis testing. The population of this study consists of all employees responsible for regional financial management within the Pasuruan Regency Government, covering functions from planning to financial reporting, totaling 167 respondents. The sampling technique applied is accidental sampling, whereby respondents are selected based on their availability and relevance during the data collection period. The data utilized in this study consist of both primary and secondary data. Primary data were collected through structured questionnaires, while secondary data were obtained from institutional documents, including archival records, internal regulations, and official reports related to the Regional Government Information System (SIPD). The data collection process was conducted systematically using a questionnaire instrument measured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). In addition, a documentary study was undertaken to examine periodic reports, meeting minutes, and other official documents to enhance the validity and triangulation of the data.

Operationally, this study involves independent variables, a dependent variable, and a moderating variable. The independent variables are derived from George C. Edward III's policy implementation model, namely communication, resources, disposition, and bureaucratic structure. The dependent variable is the effectiveness of regional financial management, which refers to the criteria outlined in Minister of Home Affairs Regulation Number 19 of 2020. Information Technology is positioned as a moderating variable and is measured using the Technology Acceptance Model (TAM), which focuses on perceived usefulness and perceived ease of use (Davis, 1989; Alfani & Nasution, 2022).

To ensure measurement validity and reliability, the questionnaire items were developed based on established indicators in the literature. The communication variable is measured through indicators such as clarity and timeliness of information delivery regarding SIPD implementation, effectiveness of communication channels, and availability of feedback mechanisms (Fahzura & Najamudin, 2022; Siregar et al., 2023). The resource variable includes budget adequacy, availability of supporting infrastructure, and the provision of relevant training (Wilansari et al., 2022; Novita, 2022). The disposition variable is measured through indicators of employee commitment, accuracy in task execution, and openness to feedback, reflecting the behavioral dimension of policy implementation (Edward III, 1980). The bureaucratic structure variable is assessed through the clarity of roles and responsibilities, inter-unit coordination, and top management support (Edward III, 1980; Dewi et al., 2023).

Furthermore, the effectiveness of regional financial management is measured using indicators related to the realization of regional original revenue (PAD), expenditure, and financing in accordance with predetermined targets, as well as their contribution to public service delivery and regional development. The moderating variable, Information Technology, is measured using TAM dimensions, including perceived usefulness and perceived ease of use, which reflect the extent to which SIPD supports work efficiency, decision-making processes, and system usability (Davis, 1989).

Instrument testing was conducted using Pearson product-moment correlation to assess validity and Cronbach's alpha to evaluate reliability. After data collection, descriptive statistical analysis was performed to provide an overview of respondent characteristics and data distribution. Subsequently, classical assumption tests, including normality, multicollinearity, and heteroscedasticity tests, were conducted to ensure that the data met the requirements of linear regression analysis.

The final stage of analysis involved hypothesis testing using Moderated Regression Analysis (MRA). This method was employed to examine both the direct effects of independent variables on the dependent variable and the moderating role of

Information Technology. The significance of relationships between variables was evaluated using the t-test for individual regression coefficients.

RESULTS AND DISCUSSION

This study was conducted in government institutions within Pasuruan Regency that are authorized to plan, implement, and report regional financial management. The population consisted of employees involved in financial management activities, including planning, execution, and reporting processes. The sampling technique employed was accidental sampling, where respondents were selected based on their availability and relevance during the data collection period. A total of 167 respondents participated in this study, consisting of treasurers, financial staff, accounting personnel, and planning officers from various Regional Government Work Units (SKPD).

The demographic profile indicates that the majority of respondents were female, aged 36–45 years, held a Bachelor's degree (S1), and had more than 11 years of work experience. They were assigned to various SIPD modules, including financial administration, budgeting, and accounting and reporting. These characteristics suggest that respondents possess adequate experience and educational background to understand bureaucratic processes, which supports the finding that disposition and bureaucratic structure significantly influence financial management effectiveness. Conversely, the insignificant effects of communication and resources may be attributed to heterogeneity in job roles, experience, and communication practices across units:

Table 1
Respondent Criteria

Category	Criteria	Total
Gender	Male	72
	Female	95
Age	< 25 Tahun	9
	26 – 35 Tahun	51
	36 – 45 Tahun	70
	> 46 Tahun	37
Education Level	High School/Vocational High School or Equivalent	25
	Diploma II (D2)	1
	Diploma III (D3)	17
	Bachelor's Degree (S1)	95
	Master's Degree (S2)	29
Work Experience	< 2 Tahun	5
	3 – 6 Tahun	36
	7 – 10 Tahun	34
	> 11 Tahun	92
Type of SIPD	Financial Administration	78
	Budget Planning	46
	Accounting & Reporting	43

Source: Author, 2025

The research results have been supported by statistical measurements and software.

Descriptive statistics were used as an initial analytical tool to describe the characteristics of the data without generalizing to the broader population. The total number of valid observations (N) was 167.

Table 2
Descriptive Variable Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
X1.1	167	2	5	4,11	0,764
X1.2	167	2	5	3,98	0,832
X1.3	167	1	5	3,76	0,900
X2.1	167	1	5	3,90	0,754
X2.2	167	1	5	3,99	0,768
X2.3	167	1	5	3,72	0,828
X3.1	167	1	5	4,12	0,743
X3.2	167	1	5	4,33	0,672
X3.3	167	2	5	4,29	0,670
X4.1	167	2	5	4,18	0,688
X4.2	167	2	5	4,10	0,708
X4.3	167	2	5	4,06	0,692
Y1	167	2	5	4,11	0,689
Y2	167	2	5	4,01	0,663
Y3	167	2	5	3,98	0,663
Y4	167	2	5	4,21	0,657
Y5	167	2	5	4,17	0,674
Y6	167	3	5	4,22	0,644
Y7	167	2	5	4,07	0,678
Y8	167	2	5	3,96	0,662
Y9	167	3	5	3,97	0,625
Z1.1	167	2	5	4,05	0,755
Z1.2	167	2	5	4,07	0,777
Z1.3	167	2	5	4,17	0,720
Z2.1	167	2	5	4,13	0,741
Z2.2	167	1	5	4,01	0,843
Z2.3	167	1	5	3,80	0,920
Valid N (listwise)	167				

Source: Author, 2025

The mean represents the average score of respondents' perceptions, while minimum and maximum values indicate the range of responses based on a five-point Likert scale. The results show that most variables have minimum values between 1 and 3 and maximum values of 5, indicating variability in responses, although the overall tendency leans toward positive perceptions. The SIPD implementation variable (X), consisting of four dimensions, demonstrates relatively strong performance. The communication dimension (X1) has mean values ranging from 3.76 to 4.11, indicating that information dissemination has been generally effective, although variability in feedback mechanisms remains relatively high. The resource dimension (X2) shows mean values between 3.72 and 3.99, suggesting that infrastructure and budget availability are adequate, but training remains suboptimal. The disposition dimension

(X3) records the highest mean value (up to 4.33), reflecting strong commitment and integrity among employees. Meanwhile, the bureaucratic structure dimension (X4) shows mean values between 4.06 and 4.18, indicating effective coordination and clear task division. The dependent variable, financial management effectiveness (Y), shows strong results, with mean values ranging from 3.96 to 4.22. The highest scores are observed in expenditure indicators, suggesting effective budget utilization. Low standard deviation values indicate consistency in respondents' perceptions. The moderating variable, information technology (Z), also shows positive results. The perceived usefulness dimension (Z1) ranges from 4.05 to 4.17, indicating that SIPD is perceived as beneficial in improving work quality. The perceived ease of use (Z2) ranges from 3.80 to 4.13, although some respondents still experience technical difficulties, as reflected in higher standard deviation values.

Research Instrument Testing

Validity testing was conducted using the Pearson product-moment correlation, showing that all indicators are valid.

Table 3
Tes Validity

Variabel	No. Item	r Hitung	r Tabel	Sig. (2-tailed)	Keputusan
Implementation of SIPD (X) (Communication, Resources, Disposition, & Bureaucratic Structure)	X1.1	0,870	0,151	0,001	Valid
	X1.2	0,913	0,151	0,001	Valid
	X1.3	0,864	0,151	0,001	Valid
	X2.1	0,836	0,151	0,001	Valid
	X2.2	0,810	0,151	0,001	Valid
	X2.3	0,850	0,151	0,001	Valid
	X3.1	0,804	0,151	0,001	Valid
	X3.2	0,828	0,151	0,001	Valid
	X3.3	0,868	0,151	0,001	Valid
	X4.1	0,872	0,151	0,001	Valid
	X4.2	0,895	0,151	0,001	Valid
	X4.3	0,885	0,151	0,001	Valid
Effectiveness of Regional Financial Management (Y)	Y.1	0,730	0,151	0,001	Valid
	Y.2	0,827	0,151	0,001	Valid
	Y.3	0,823	0,151	0,001	Valid
	Y.4	0,786	0,151	0,001	Valid
	Y.5	0,794	0,151	0,001	Valid
	Y.6	0,838	0,151	0,001	Valid
	Y.7	0,828	0,151	0,001	Valid
	Y.8	0,835	0,151	0,001	Valid
	Y.9	0,820	0,151	0,001	Valid
Information Technology (Z)	Z1.1	0,757	0,151	0,001	Valid
	Z1.2	0,749	0,151	0,001	Valid
	Z1.3	0,756	0,151	0,001	Valid
	Z2.1	0,878	0,151	0,001	Valid
	Z2.2	0,917	0,151	0,001	Valid
	Z2.3	0,902	0,151	0,001	Valid

Reliability Test

Reliability testing using Cronbach's Alpha confirms that all variables are reliable and consistent for measurement.

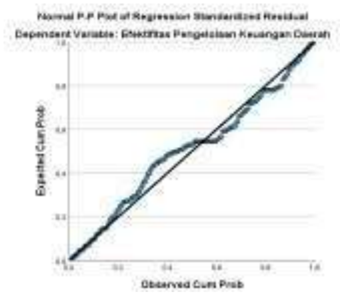
Table 4
Test Reliability

Variabel	Cronbach's Alpha	Hasil
Communication	0,855	Reliable
Resources	0,777	Reliable
Disposition	0,777	Reliable
Bureaucratic Structure	0,860	Reliable
Regional Financial Management Effectiveness	0,934	Reliable
Information Technology	0,932	Reliable

Source: Author, 2025

Normality Test

The normality test, based on the Normal P-P Plot, shows that residual data are distributed around the diagonal line, indicating a normal distribution. The output of the normality test for the regression is shown in the following figure:

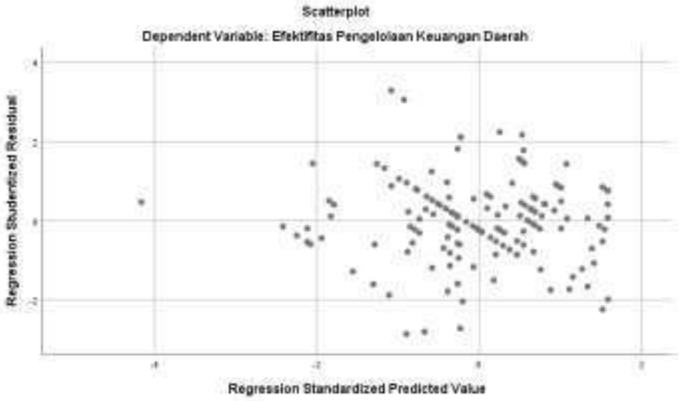


Graph 1
Normality Test

The results in the graph can be seen and understood that the points have spread around the diagonal line and follow the direction of the diagonal line, so the data is normally distributed and the regression model has met the assumption of normality.

Heteroskedasticity Test

The heteroscedasticity test aims to determine whether there is unequal variance in the residuals from one observation to another in a regression model. A prerequisite for a regression model is one with homoscedasticity (constant residual variance). Detection is performed through scatterplot analysis with the following criteria: if the data points are randomly distributed above and below 0 on the Y-axis without forming a specific pattern (wavy, widening, or narrowing), then the model is declared free of heteroscedasticity (Ghozali, 2021).



Graph 2
Heteroskedasticity Test

Based on the scatterplot graph above, it can be seen that the data points are randomly distributed and do not form a specific geometric pattern. This indicates that there is no heteroscedasticity in the regression model. Therefore, this model meets the classical assumptions and is suitable for predicting the dependent variable based on its independent variables.

Multicollinearity Test

Table 5
Multicollinearity Test

Model	Tolerance	VIF	Decision
Communication (X1)	0.347	2.885	There is no multicollinearity
Resources (X2)	0.384	2.602	There is no multicollinearity
Disposition (X3)	0.47	2.126	There is no multicollinearity
Bureaucratic Structure (X4)	0.36	2.78	There is no multicollinearity

The analysis results show that all independent variables have a Tolerance value > 0.10 and a VIF value < 10. Specifically, the highest VIF value is 2,885 (Communication) and the lowest is 2,126 (Disposition). Thus, it can be concluded that there is no multicollinearity problem between independent variables in this regression model, so that each variable is independent and suitable for use to predict the dependent variable accurately.

Hypothesis Testing
The results of hypothesis testing using multiple linear regression analysis are summarized in the following table.

Table 6
Hypothesis Testing Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,470	,127		11,551	<,001
	Communication (X1)	,069	,071	,090	,972	,333

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Resources (X2)	,083	,070	,100	1,182	,239
Disposition (X3)	,344	,058	,392	5,893	<,001
Bureaucratic Structure (X4)	,264	,075	,314	3,530	<,001

Source: SPSS Processed Data 2025

Table 7
Moderated Regression Analysis (MRA) Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.272	1.708		3.087	0.002
	Communication (X1)	0.189	0.355	0.246	0.53	0.597
	Resources (X2)	0.32	0.34	0.383	0.94	0.349
	Disposition (X3)	-0.18	0.376	-0.205	-0.478	0.634
	Bureaucratic Structure (X4)	-1.01	0.364	-1.201	-2.778	0.006
	Information Technology	-0.879	0.515	-1.102	-1.706	0.09
	Communication*Information Technology	-0.212	0.338	-0.516	-0.628	0.531
	Resources*Information Technology	-0.278	0.339	-0.632	-0.82	0.413
	Disposition*Information Technology	0.519	0.393	1.103	1.321	0.188
	Biocratical Structure*Information Technology	1.138	0.361	2.676	3.149	0.002

The results of multiple linear regression and Moderated Regression Analysis (MRA) are summarized as follows:

- **H1 (Communication)**: Not significant (Sig. 0.333 > 0.05). Communication does not significantly affect financial management effectiveness.
- **H2 (Resources)**: Not significant (Sig. 0.239 > 0.05). Resource availability has not been optimally utilized.
- **H3 (Disposition)**: Significant positive effect (Sig. < 0.001; $\beta = 0.344$). Higher commitment and integrity improve effectiveness.
- **H4 (Bureaucratic Structure)**: Significant positive effect (Sig. < 0.001; $\beta = 0.264$). Clear procedures enhance effectiveness.
- **H5 (IT × Communication)**: Not significant (Sig. 0.531). IT does not moderate communication.
- **H6 (IT × Resources)**: Not significant (Sig. 0.413). IT does not strengthen resource effects.
- **H7 (IT × Disposition)**: Not significant (Sig. 0.188). Disposition remains an internal factor.
- **H8 (IT × Bureaucratic Structure)**: Significant (Sig. 0.002; $\beta = 1.138$). IT strengthens the role of bureaucratic structure.

Discussion

The findings indicate that disposition and bureaucratic structure are the primary determinants of financial management effectiveness. These results confirm Edward III's policy implementation theory, which emphasizes the importance of implementer commitment and structural clarity.

The insignificant effect of communication suggests that information delivery mechanisms are not yet fully effective in influencing performance. Similarly, the insignificance of resources indicates that availability alone is insufficient without proper utilization and competency alignment.

The moderating analysis reveals that information technology does not universally strengthen all relationships, but plays a specific and strategic role in reinforcing bureaucratic structure. This suggests that digital systems such as SIPD are more effective when aligned with clear procedural frameworks rather than behavioral or resource-based factors.

Overall, the results highlight that institutional and behavioral factors are more critical than technical or structural inputs alone, and that the effectiveness of digital governance systems depends on their integration with organizational structures.

CONCLUSIONS, LIMITATIONS AND SUGGESTIONS

Conclusions

Based on the findings of this study, it can be concluded that the effectiveness of regional financial management in Pasuruan Regency is predominantly influenced by internal factors of policy implementers, particularly the disposition of the apparatus and the clarity of the bureaucratic structure. In contrast, communication and resource variables do not show a significant effect, primarily due to limitations in the quality of information delivery and the technical competencies of human resources.

Information technology, represented by the Regional Government Information System (SIPD), demonstrates a selective moderating role. While it does not strengthen the influence of communication, resources, or disposition, it is empirically proven to significantly moderate the relationship between bureaucratic structure and financial management effectiveness. This finding indicates that the digitalization of procedures through structured user access control mechanisms enhances coordination and enforces staged data validation processes. Consequently, the synergy between a well-defined bureaucratic structure and a reliable information system reduces discretionary gaps and promotes more transparent, accountable, and real-time financial governance. These results highlight that technological effectiveness is contingent upon its alignment with institutional structures rather than functioning as an independent determinant.

Limitations

This study has several limitations that should be acknowledged. First, the scope is limited to the Pasuruan Regency Government, which restricts the generalizability of the findings to other regions with different institutional characteristics and levels of technological readiness. Second, the research model is conceptually confined to the four variables derived from George C. Edward III's policy implementation theory, without incorporating other relevant factors such as the Regional Financial Accounting System (SAKD) or the Government Internal Control System (SPIP), which may also influence financial management effectiveness. Third, the use of a quantitative approach limits the ability to capture deeper processual and behavioral dynamics underlying policy implementation. Fourth, the reliance on self-reported questionnaire data introduces potential bias and variation in respondents' interpretations, particularly given that the SIPD system is continuously evolving in terms of both technical features and regulatory frameworks. Finally, the measurement of financial management effectiveness is perception-based and does not incorporate objective performance indicators, such as budget realization outcomes or audit findings. This limitation constrains the comprehensiveness of the study in reflecting actual governance performance. Despite these limitations, this study contributes to the literature on SIPD implementation by emphasizing the roles of communication, resources, disposition, and bureaucratic structure, as well as the moderating effect of information technology in shaping regional financial management effectiveness.

Suggestions

Based on the research findings, several practical recommendations can be proposed. The Pasuruan Regency Government is encouraged to strengthen technical communication mechanisms, particularly through structured coordination forums across organizational units, to improve clarity and consistency in policy implementation. Resource optimization should be prioritized by assigning personnel based on technical competencies, supported by continuous and targeted training programs. Strengthening the disposition of the apparatus, including integrity, commitment, and accountability, is essential and should be reinforced through leadership exemplification and organizational culture development. In addition, it is important to enhance the bureaucratic structure by ensuring clear task division and the implementation of standardized digital operating procedures (SOPs). From a technological perspective, further development of SIPD features such as integrated monitoring dashboards and improved user access control systems should be prioritized to strengthen coordination and minimize discretionary gaps. Ultimately, SIPD should not be positioned merely as an administrative tool but as a strategic instrument for achieving transparent, accountable, and data-driven regional financial governance in real time.

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