

## ANALYSIS OF THE LEVEL OF E-GOVERNMENT IMPLEMENTATION AND FACTORS THAT INFLUENCE IT (EMPIRICAL STUDY OF REGIONAL GOVERNMENT IN CENTRAL JAVA)

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### ABSTRACT

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*The new public management is an attempt by the government to improve public accountability, transparency, and more effective and efficient performance. The application of e-Government is an innovation by local governments to realize the achievement of new public management. Not only has the aim of transparency and accountability, the use of the e-Government application system is also expected to be able to improve the performance of local governments with the principle of value for money. The purpose of this study is to analyze the factors that influence the implementation of e-Government in the Regional Government of Central Java and the relationship of each of these factors to the implementation of e-Government. The research was conducted using quantitative research methods with data analysis using EViews. The population and sample use data on the implementation of e-government and the factors that influence it in the district/city governments of Central Java province, in 2019 and 2021. The results show that local revenue (PAD) has a positive effect on the level of implementation of e-Government, spending capital has no effect on e-Government implementation, local government financing has a positive effect on e-Government implementation, regional per capita income (PDRB) has no effect on implementation e-Government, the level of public education has no effect on e-Government, and the population has no effect on the implementation of e-Government.*

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### INTRODUCTION

Reforms in public sector organizations in Indonesia began with the implementation of the idea of New Public Management (NPM). The application of NPM is carried out to improve performance in the public sector, one of which is the implementation of e-government. Technological developments have encouraged improvements in the quality of government services, effective and efficient public services can be provided through e-government. The implementation of e-government in each country is different, so not all countries have the ability to obtain the same results from e-government development (Defitri et al., 2020; Doran et al., 2023). In 2003, the Indonesian Government issued a regulation on e-government, namely Presidential Decree no. 3 of 2003. The purpose of issuing Presidential Decree no. 3 of 2003 is that e-government is intended to ensure the integration of electronic document and information management and processing systems in developing a transparent public service system. Implementing e-government in developing countries has challenges from internal and external factors. Challenges from external factors include the level of corruption and the size of government organizations. Furthermore, internal factors are the characteristics of society and the quality of e-government itself. Apart from that, the level of public education and the quality of infrastructure are also challenges in implementing e-government (Samuel et al., 2020). Furthermore, other obstacles to implementing e-government are related to the complexity of government organizations and the government's capacity to fund e-government (Gallego-Álvarez et al., 2010). Meanwhile in Indonesia, there are several obstacles and challenges in implementing e-government, namely obstacles in the areas of regulations and implementation

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guidelines, quality of human resources, limited facilities and infrastructure (Wulansari & Inayati, 2019). Then, if we look at financial factors, it is found that Regional Original Income (PAD) influences the implementation of e-government (Napitupulu, 2015). Previous research shows that the main determining factor for e-government adoption is the benefits and convenience obtained by the public which influence people to use e-government services. Perceived ease of use of e-government, facilitating conditions and trust positively influence perceived usefulness. Social influence, facilitating conditions and trust positively influence the ease of use of e-government (Chen & Aklikokou, 2020). On the other hand, e-government performance factors are related to adequate organizational infrastructure, social environment, community economy and technology that supports e-government implementation. E-government performance issues such as education, internet availability, level of ICT infrastructure development, income level or economic situation of society, and ensuring people's freedoms are protected are basic and important for the smooth implementation of e-government and adoption of e-government services (Mensah, 2020).

Thus, research on e-government implementation can be categorized into three groups, namely the influence of e-government implementation on an output, evaluation of e-government implementation, and factors that influence e-government implementation. The urgency of this research is to examine the relationship between factors that influence the implementation of e-government in the Central Java Regional Government. It is hoped that this research can provide an overview and input for the government, especially district/city governments in Indonesia regarding the factors that influence the implementation of e-government. Different from previous research, this research uses the Local Government in Central Java as the research subject. Local governments are agencies that are directly affected by changes in government regulations, in this case the implementation of e-government. The factors studied are regional income, capital expenditure, financing, per capita income, community education level, community population.

This research uses Regency/City Governments in Central Java as a sample. These districts/cities were chosen as samples because their SPBE index ranking decreased by more than 45% from 2019 to 2021. Based on this, this research reviews the extent of e-government implementation in districts/cities in Central Java and examines the influence of local revenue, capital expenditure, local government financing, regional per capita income, community education level, and community population on the level of e-implementation. E-government in Local Governments in Central Java.

### **The Theory of Institutional Isomorphism**

In the institutional theory of isomorphism, there are three types, namely coercive, mimetic and normative isomorphism. Coercive isomorphism shows the process by which an organization adopts certain features (traits) due to coercion (pressure) from the state, other organizations or society. Pressure on organizations can be formal or informal. Examples of coercive isomorphism include pressure from the central government or donors, namely as funders. This pressure can be felt as force, persuasion or an invitation to join in an agreement. Coercive isomorphism tends to form obedience that is not true or just a formality because the motivation is only to follow and fulfill the rules (DiMaggio & Powell, 1983).

Normative isomorphism is a process of change that originates from professionalization. Professionalization is a joint effort carried out by human resources in an organization to determine the conditions and methods of work carried out based on thought and legitimacy. The development of professionalization can be done in two ways, namely education and legitimacy based on cognitive as well as professional development and elaboration that forms a new model. Furthermore, the mimetic isomorphism mechanism occurs due to imitation. This occurs when an organization experiences uncertainty about how to process something. In this situation, an organization will imitate other organizations by conducting benchmarking, comparative studies or using consultant services (DiMaggio & Powell, 1983).

This research uses coercive, normative and mimetic isomorphism because it fits the research context, namely external pressure and internal institutional factors caused by the existence of these two types of isomorphism. The concept of institutional isomorphism in public sector entities emphasizes the principle of compliance with regulations, executive policies and public expectations. This condition of uncertainty indicates the existence of strategic arrangements with the influence of external environmental factors and internal environmental factors which are manifested by normative pressure to form good management. Management is committed to developing its profession and controlling it by implementing a professional code of ethics or compliance scale.

### **Regional Original Income (PAD)**

The importance of Regional Original Income (PAD) in implementing e-government is necessary because if regional economic prosperity is high, then regional governments have adequate financing to serve their communities through implementing e-government because implementing e-government requires large costs (Gallego-Álvarez et al., 2010; Napitupulu, 2015). In line with research (Utami et al., 2019) that local revenue has a significant influence on e-government implementation. This research has an impact on the smooth implementation of e-government. Therefore, the government should maximize efforts to increase PAD so that the PAD obtained can be allocated to the implementation of e-government. Because, implementing e-government requires large costs in its implementation. The government must also pay attention to things that can increase PAD so that it can increase the implementation of e-government. Original regional income is one of the main sources used by regional governments to run their government which aims to develop the region, so that the fulfillment of facilities and infrastructure in the framework of regional development is influenced by the amount of income obtained. E-government in its implementation usually requires large costs. This makes it possible that if regional economic welfare is good, the government will have sufficient costs in financing to serve the community through the implementation of e-government (Oktaviani & Indra Arza, 2020; Sipahutar, 2017; Utami et al., 2019). Thus, the first hypothesis is as follows:

**Ha1 = Regional original income has a positive effect on the level of e-government implementation.**

### **Regional Government Capital Expenditures**

Adequate financial capacity facilities will support the level of e-government implementation (Napitupulu, 2015; Samuel et al., 2020). This means that the amount of regional capital expenditure has a positive effect on e-government implementation. Apart from that, the higher the amount of capital expenditure, the higher the level of e-government implementation. This is because the higher the amount of capital expenditure, the higher the share of capital expenditure that will be allocated to meet e-government implementation needs (Sipahutar, 2017). So the second hypothesis is as follows:

**Ha2 = Capital expenditure has a positive effect on the level of e-Government implementation.**

### **Local Government Financing**

Regional government financing can support the implementation of e-government because it is related to external demands which have expectations of open use of regional government financing in a transparent manner. Therefore, it is important to use e-government as a tool for disclosing financial information to the public by publishing reports that reflect the government's financial condition (Alenezi et al., 2017; Ashaye & Irani, 2019; Mayasari, 2016; Napitupulu, 2015). Financial support and proper planning and budgeting are required in e-government implementation, so that internal financial problems, such as lack of adequate funding arrangements have consequences for poor implementation, often leading to unfinished projects and higher maintenance costs (Alenezi et al., 2017; Ashaye & Irani, 2019). Based on the explanation above, the third hypothesis is as follows:

**Ha3: Local government financing has a positive effect on the implementation of e-government.**

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### Regional Income Per Capita

Local governments with higher levels of per capita income will have a higher level of political oversight and tend to demand more accountability from the public (Elkadi, 2013). Regional governments that have high per capita income have high demands for accountability. This demand for accountability is of course in line with the demand for transparency of financial information which of course can be more easily provided to the public through the provision of information on the official regional government website (Giroux & McLelland, 2003; Manoharan & Ingrams, 2018; Mutiha, 2017). Thus, the fourth hypothesis is as follows:

**Ha4: Regional per capita income has a positive effect on the level of e-government implementation.**

### Level of Education

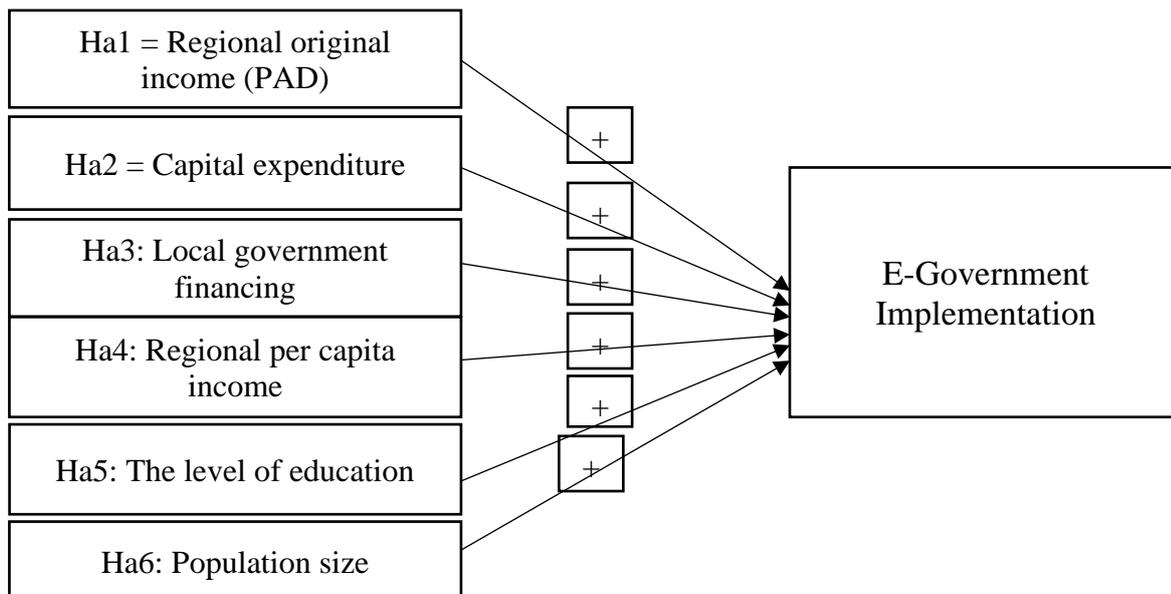
The socio-economic factor that influences the decision to use e-government services is the level of education. Because, the level of education is a very important predictor of e-government use. People who have a high level of education prefer to use the internet for all e-Government activities (Gounopoulos et al., 2020). The level of education greatly influences people's ability to access information technology, so it will also influence the success of e-government implementation (Samuel et al., 2020). Thus, the fifth hypothesis is as follows:

**Ha5: The level of public education has a positive effect on the level of e-government implementation.**

### Total Population

Local governments with larger populations tend to adopt e-government technology than local governments with smaller populations. Because local governments that have larger populations tend to have greater demands for providing public services and improving information services (Elkadi, 2013). E-government users cover a wide population, both government circles, citizens and business circles, so that ultimately a mutually beneficial relationship is created (Dewi & Jayanti, 2017). Thus the sixth hypothesis is:

**Ha6: Population size has a positive effect on the level of e-government implementation.**



## **RESEARCH METHODS**

This type of research is quantitative research and examines the analysis of the level of e-government implementation and the factors that influence it (empirical study of regional government in Central Java). This research method uses multiple linear regression analysis methods. The data analysis method in this research uses statistical calculations, namely by using Eviews software.

### **Population and sample**

The population and sample in this study are data on the implementation of e-government and the factors that influence it in the district/city governments of Central Java province, totaling 35 districts/cities in 2019 and 2021. The sampling technique used was census sampling / saturated sample, from all districts/cities registered in Central Java Province.

### **Variable Operationalization**

#### **Independent Variable**

a. Regional original income (PAD)

Based on Law no. 33 of 2004 concerning Financial Balance between the Central Government and Regional Governments, namely Regional Original Income (PAD) is revenue obtained by regions from sources within their own regions which are collected based on regional regulations in accordance with applicable laws and regulations. In this research PAD is measured using the following formula:

$$\text{PAD} = \text{Regional Tax Results} + \text{Regional Levy Results} + \text{Regional Owned Company Results} + \text{Other Regional Wealth Management Results} + \text{Other Legitimate Regional Original Income}$$

b. Capital Expenditures

Capital Expenditure according to PP No. 71 of 2010, namely that capital expenditure is regional government expenditure whose benefits exceed 1 budget year and will increase regional assets or wealth and will further increase routine expenditure such as maintenance costs in the general administration expenditure group. The measurement of capital expenditure in research uses realized capital expenditure

c. Local Government Financing

Capital Government Financing are all Regional General Cash Account expenditures, including providing loans to third parties, government capital participation, repayment of loan principal within a certain fiscal year period, and the formation of reserve funds.

d. Per Capita Regional Income

Per capita regional income is the average income per head of population in districts and cities in Central Java from year to year. Data comes from the Central Java Central Statistics Agency (BPS).

e. Community Education Level

Education level is measured using the School Enrollment Rate (APS), which is the percentage of the population still attending school according to age group without paying attention to educational level.

f. Population

The population is measured based on the total population in districts/cities in Central Java, data taken through the website of the Central Statistics Agency (BPS).

#### **Dependent Variable**

E-Government is an information technology application using the internet and digital media which is run by the government for the purposes of distributing information from the government to the public, business partners, employees, business entities and related institutions which is done online. E-Government is measured using the results of the Electronic Based

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Government System (SPBE) ranking carried out by the Ministry of Communication and Information.

Table 1. Variable Operationalization

Variable	Indicator
Regional original income	Realization of Original Regional Income in 2020-2021 (PAD)
Capital Expenditures	Realization of Capital Expenditures in 2019 and 2021 (CE)
Local Government Financing	Realization of Financing in 2019 and 2021
Per Capita Regional Income	GDP Per Capita Based on Constant Prices 2019 and 2021 (PDRB)
Community Education Level	School Enrollment Rates for Ages 19-24 in 2019 and 2021 (APS)
Population	Total population of districts/cities in 2019 and 2021 (POP)
Implementation of E-government	Electronic-based government system (SPBE) index value for 2019 and 2021

## RESULTS AND DISCUSSION

### Normality test

The normality test is carried out to test whether in the regression model the independent variable and dependent variable or both have a normal distribution or not. If the variables are not normally distributed, the statistical test results will decrease (Ghozali, 2018).

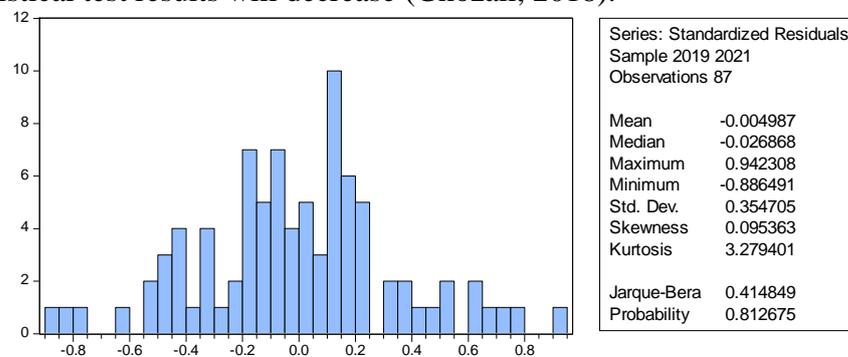


Figure 1. Normality Test Results

In Figure 1, the Jarque-bera value is 0.414849 with a probability value of 0.812675. So it can be concluded that the model in this study has a normal distribution, because the probability value of 0.812675 is greater than 0.05.

### Multicollinearity Test

Table 2. Multicollinearity Test Results

PAD	0.012767	0.703142	1.000000 0	0.526892	0.123820	0.421445
BM	-0.174218	1.000000	0.703142	0.257022	0.009378	0.581514
FIN	0.074786	0.009378	0.123820 0	0.097609	1.000000	0.143650
PDRB	0.361698	0.257022	0.526892 2	1.000000	0.097609	-0.187571
APS	1.000000	-0.174218	0.012767 7	0.361698	0.074786	-0.474845
POP	-0.474845	0.581514	0.421445 5	-0.187571	0.143650	1.000000

Source: Results of statistical data processing (2023)

Based on the results of the multicollinearity test, there are no symptoms of multicollinearity in the research model because there are no high correlation values between the independent variables, namely not exceeding 0.90 (Ghozali, 2018).

### Heteroscedasticity Test

Table 3. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.510864	0.286501	1.783113	0.0784
PAD	3.77E-11	1.40E-10	0.270050	0.7878
BM	1.29E-10	2.55E-10	0.504743	0.6151
FIN	1.45E-10	2.15E-10	0.672621	0.5031
PDRB	-0.001474	0.001810	-0.814563	0.4177
APS	-0.001859	0.003511	-0.529634	0.5978
PO	-1.35E-07	8.63E-08	-1.564688	0.1216

Source: Results of statistical data processing (2023)

Heteroscedasticity is a classic assumption test that is used to see whether there are deviations from assumptions in the regression model. This deviation is caused by the unequal variance of the residuals for all observations in the regression model. The condition that needs to be met is the absence of heteroscedasticity deviations.

### Selection of Panel Data Regression Models

#### Common Effect Model (CEM)

Below are the results of the Common Effect Model (CEM) test to compare with the test results of the Fixed Effect Model (FEM) or Random Effect Model (REM).

Table 4. Common Effect Model Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.397422	0.459193	5.220950	0.0000
PAD	4.79E-10	2.24E-10	2.141829	0.0352
BM	-6.10E-10	4.09E-10	-1.489774	0.1402
FIN	9.15E-10	3.45E-10	2.652204	0.0096
PDRB	-0.002160	0.002900	-0.744907	0.4585

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APS	0.005312	0.005627	0.944038	0.3480
POP	1.77E-08	1.38E-07	0.128171	0.8983

Source: Results of statistical data processing (2023)

### Fixed Effect Model (FEM)

Below are the results of the Fixed Effect Model (FEM) test to compare with the test results of the Common Effect Model (CEM) and Fixed Effect Model (FEM) or Random Effect Model (REM).

Table 5. Fixed Effect Model Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.195785	3.316455	1.566668	0.1240
APS	-0.044494	0.048152	-0.924019	0.3603
BM	-1.17E-10	6.18E-10	-0.188904	0.8510
PAD	4.69E-10	7.99E-10	0.586873	0.5602
PDRB	-0.016474	0.036542	-0.450819	0.6542
FIN	1.11E-09	3.96E-10	2.810423	0.0072
POP	1.02E-06	1.46E-06	0.698820	0.4882

#### Effects Specification

#### Cross-section fixed (dummy variables)

R-squared	0.658378	Mean dependent var	2.843563
Adjusted R-squared	0.361316	S.D. dependent var	0.383782
S.E. of regression	0.306709	Akaike info criterion	0.779430
Sum squared resid	4.327251	Schwarz criterion	1.941525
Log likelihood	7.094792	Hannan-Quinn criter.	1.247370
F-statistic	2.216298	Durbin-Watson stat	2.183012
Prob(F-statistic)	0.004864		

Source: Results of statistical data processing (2023)

Below are the test results of the Random Effect Model (REM) to compare with the test results of the Common Effect Model (CEM) and Fixed Effect Model (FEM).

Table 6. Random Effect Model Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.482591	0.567583	4.373965	0.0000
APS	0.004109	0.006940	0.592040	0.5555
BM	-5.39E-10	4.26E-10	-1.265064	0.2095
PAD	4.34E-10	2.58E-10	1.681507	0.0966
PDRB	-0.002097	0.003754	-0.558564	0.5780
FIN	9.47E-10	3.09E-10	3.060461	0.0030
POP	1.31E-08	1.65E-07	0.079598	0.9368

	S.D.	Rho
Cross-section random	0.223402	0.3466
Idiosyncratic random	0.306709	0.6534
Weighted Statistics		
R-squared	0.138890	Mean dependent var 1.855501
Adjusted R-squared	0.074306	S.D. dependent var 0.335164
S.E. of regression	0.303182	Sum squared resid 7.353534
F-statistic	2.150553	Durbin-Watson stat 1.756139
Prob(F-statistic)	0.056505	
Unweighted Statistics		
R-squared	0.145617	Mean dependent var 2.843563
Sum squared resid	10.82230	Durbin-Watson stat 1.499706

Source: Results of statistical data processing (2023)

Of the three regression models that can be used to estimate panel data. So, the regression model with the best results will be used in analyzing multiple linear regression. So in this research, to find out the best model to use in analyzing whether it is the Common Effect Model, Fixed Effect Model (FEM) or Random Effect Model (REM), a test is carried out first using the Chow Test and the Hausman Test.

### **Chow Test**

The Chow test is carried out by comparing or choosing which is best between the common effect model or the fixed effect model. Decisions are made by looking at the probability value (p) for cross-section F. If the p value is  $> 0.05$  then the model selected is the common effect model. However, if  $p < 0.05$  then the model chosen is the Fixed Effect Model.

Table 7. Chow Test Results

Redundant Fixed Effects Tests  
Equation: Untitled  
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.024514	(34,46)	0.0131
Cross-section Chi-square	79.591230	34	0.0000

Source: Results of statistical data processing (2023)

Based on the Chow Test Table above, both Crosssection f and Chi Square probability values are smaller than alpha 0.05 so they reject the null hypothesis. So to show fixed effects, the best model to use is a model using the fixed effects method. Based on the results of the Chow test which rejected the null hypothesis, the Hausman test was then carried out.

### **Hausman Test**

The Hausman test is carried out to compare or choose which is the best between the Fixed Effect Model or Random Effect Model. Decisions are made by looking at the probability value (p) for cross-section F. If the p value is  $> 0.05$  then the selected model is the Random Effect Model. However, if  $p < 0.05$  then the model chosen is the Fixed Effect Model.

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Table 8. Hausman Test Results

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.664648	6	0.7220

Source: Results of statistical data processing (2023)

Based on the Hausman Test Table above, the Crosssection f and Chi Square probability values are greater than alpha 0.05 so they are unable to reject the null hypothesis. So it shows that the best model to use is a model using the Random Effect Model.

### Multiple Regression Test

Table 9. Multiple Regression Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.482591	0.567583	4.373965	0.0000
PAD	4.34E-10	2.58E-10	1.681507	0.0966
BM	-5.39E-10	4.26E-10	-1.265064	0.2095
FIN	9.47E-10	3.09E-10	3.060461	0.0030
PDRB	-0.002097	0.003754	-0.558564	0.5780
APS	0.004109	0.006940	0.592040	0.5555
POP	1.31E-08	1.65E-07	0.079598	0.9368

Source: Results of statistical data processing (2023)

$$SPBE = 2,482591 + 4,34E-10PAD - 5,39E-10BM + 9,47E-10FIN - 0,002097PDRB + 0,004109APS + 1,31E-08PO + e$$

The panel data regression equation above can be explained as follows:

- The constant of 2.482591 means that if the independent variable is constant then the dependent variable (SPBE) is 2.482591.
- The regression coefficient for the PAD variable (original regional income) is 4.34E-10, meaning that if other independent variables have constant values and PAD increases by 1 unit, SPBE will increase by 4.34E-10.
- The regression coefficient for the variable BM (capital expenditure) is -5.39E-10, meaning that if the value of other independent variables is constant and BM (capital expenditure) increases by 1 unit, SPBE will experience a decrease of -5.39E-10.
- The regression coefficient for the variable FIN (local government financing) is 9.47E-10, meaning that if the value of other independent variables remains constant and regional government financing increases by 1 unit, SPBE will experience an increase of 9.47E-10.

- e. The regression coefficient for the GRDP/PDRB variable (regional income per capita) is - 0.002097, meaning that if the value of other independent variables is constant and GRDP experiences an increase of 1 unit, SPBE will experience a decrease of 0.002097.
- f. The regression coefficient for the APS variable (school participation rate) is 0.004109, meaning that if the other independent variables have constant values and APS increases by 1 unit, SPBE will experience an increase of 0.004109.
- g. The regression coefficient for the PO (population) variable is 1.31E-08, meaning that if the value of other independent variables remains constant and the population increases by 1 unit, SPBE will experience an increase of 1.31E-08.

## Results and Discussion

### t-test

The t test was carried out to partially test the influence of the independent variable on the dependent variable. This test is carried out by looking at the probability value with the following criteria:

- a. If the probability value is  $< 0.10$  then it is declared influential
- b. If the probability value is  $> 0.10$  then it is declared to have no effect

**Table 10. t test results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.482591	0.567583	4.373965	0.0000
PAD	4.34E-10	2.58E-10	1.681507	0.0966
BM	-5.39E-10	4.26E-10	-1.265064	0.2095
FIN	9.47E-10	3.09E-10	3.060461	0.0030
PDRB	-0.002097	0.003754	-0.558564	0.5780
APS	0.004109	0.006940	0.592040	0.5555
POP	1.31E-08	1.65E-07	0.079598	0.9368

Source: Results of statistical data processing (2023)

The first hypothesis is that local revenue (PAD) has a positive effect on the level of e-government implementation. Based on the t test results in table 8, the probability value of PAD (X1) is 0.0966, which is lower than  $\alpha 0.10$  with a t-statistic value of 1.681507. This means that PAD (X1) has a positive effect on e-government (Y), so it can be concluded that the results of the first hypothesis (H1) which states that PAD has a positive effect on e-government is accepted.

Based on the test results, it can be explained that the higher the PAD, the greater the SPBE value or electronic-based government system index value, which means that the local government has good e-government implementation. Several research results show that if you have adequate PAD, it will be better for implementing e-government in the area. Because, implementing e-government requires large funds for its implementation. Thus, the government needs to create a budget item for e-government. The results of this research are the same as the explanation of the hypothesis that the higher the total local original income (PAD), the higher the level of e-government implementation. This is in line with research studies that found that the variable local revenue (PAD) has a positive effect on e-government (Sipahutar, 2017; Utami et al., 2019).

The second hypothesis is that capital expenditure (BM) has a positive effect on the level of e-government implementation. Based on the results of the t test in table 10, the probability value of BM (X2) is 0.2095, which is higher than  $\alpha 0.10$  with a t-statistic value of -1.265064. This shows that BM (X2) has no effect on e-government (Y), thus it can be concluded that the second hypothesis (H2) which states that capital expenditure has a positive effect on e-government is rejected. This result can be explained that regulations are not yet supportive and the budget allocation is not

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adequate for capital expenditure allocated for e-government implementation. The lack of influence on capital expenditure can occur because the proportion of capital expenditure allocated for e-government implementation is still very small, compared to other asset expenditure. Based on Minister of Home Affairs Regulation Number 13 of 2006, capital expenditure includes all forms of expenditure incurred in connection with the purchase or procurement, or construction of fixed assets with a practical value of more than twelve months, and in government activities (Novitasari et al., 2022; Ordiyasa, 2015).

The third hypothesis is that local government financing has a positive effect on e-government implementation. Based on the t test results in table 10, the probability value of PY (X3) is 0.0030, which is lower than  $\alpha$  0.10 with a t-statistic value of 3.060461. This means that PY (X3) has a positive effect on e-government (Y), so it can be concluded that the third hypothesis (H3) which states that local government financing has a positive effect on e-government is accepted. The availability of adequate financial resources can support the implementation of e-government. Funding for e-government in regional governments comes from Regional Original Income (PAD). Fund allocations for e-government implementation are allocated for providing internet networks, maintaining information systems, and maintaining supporting facilities such as computers, laptops, and printers (Pérez-Morote et al., 2020; Wiwin, 2022).

The fourth hypothesis is that regional per capita income has a positive effect on the level of e-government implementation. Based on the results of the t test in table 10, the GDP probability value (X4) is 0.55780, which is higher than  $\alpha$  0.10 with a t-statistic value of 0.558564. This means that GRDP (X4) has no effect on e-government (Y), so it can be concluded that the results of the fourth hypothesis (H4) which states that regional per capita income has a positive effect on the level of e-government implementation is rejected. The existence of Gross Regional Domestic Product (GRDP) is very important for a region to know the economic conditions of its region. The calculation of regional per capita income is the total GRDP divided by the population. However, high community income does not always have an impact on the demand for transparency in regional financial management. So, it can be concluded that a region with a high GRDP does not necessarily implement e-government, because there is a lack of demand for the use of e-government from the public (Sophia Dewi, 2013).

The fifth hypothesis proposed is that the level of public education has a positive effect on the level of e-government implementation. Based on the results of the t test in table 10, the probability value of APS (X5) is 0.5555, which is higher than  $\alpha$  0.10 with a t-statistic value of 0.592040. This means that APS (X5) has no effect on e-government (Y), so it can be concluded that the results of the fifth hypothesis (H5) which states that the level of public education has a positive effect on the level of e-government implementation is rejected.

In this study, education level is represented by the School Enrollment Rate (APS) for the 19-24 year age group. In Indonesia, 19-24 years old is the age group when someone takes higher education at a university. Thus, it is hoped that it will have high public awareness. However, a high level of education does not guarantee public awareness and concern regarding the ease of accessing information provided by the government. High levels of education are not always accompanied by awareness of the importance of transparency and public accountability. Moreover, some students have the principle of focusing on learning which is only focused on their role in studying and studying, so that their social acumen is considered to be still weak. Weak social acumen causes them to be indifferent to the community's right to public accountability (Sophia Dewi, 2013).

The sixth hypothesis proposed is that population size has a positive effect on the level of e-government implementation. Based on the results of the t test in table 10, the probability value of PO (X6) is 0.9368, which is higher than  $\alpha$  0.10 with a t-statistic value of 0.079598. This means that PO (X5) has no effect on e-government (Y), so it can be concluded that the results of the sixth hypothesis (H6) which states that the level of public education has a positive effect on the level of

e-government implementation is rejected. These results are in line with research which states that there is no positive relationship between population size and E-government implementation. This is because the government's accountability is not seen from how large the population is but based on its obligation to serve the wider community (Rizhaldy, 2021; Verawaty, 2015).

## CONCLUSIONS AND SUGGESTION

Based on the results of research analysis, it shows that local revenue (PAD) has a positive influence on the level of e-government implementation. This means that local governments that have high PAD will also have better levels of e-government implementation. Because, to implement e-government requires large funds. The second result, capital expenditure (BM) has no effect on e-government implementation. Capital expenditure is not allocated maximally for the implementation of e-government, so that high or low amounts of capital expenditure have no effect on the implementation of e-government. The third result shows that local government financing has a positive effect on e-government implementation. This means that the availability of adequate financial resources can support the implementation of e-government. Funding for e-government in regional governments can be sourced from Original Regional Revenue (PAD). The fourth analysis shows that regional per capita income (GRDP) has no effect on the implementation of e-government (Y), a region with high GRDP does not guarantee the implementation of e-government, due to the lack of use of e-government by the community. The fifth analysis result is that the level of public education has no effect on e-government, so it can be concluded that a high level of education does not guarantee public awareness and concern for the ease of accessing information provided by the government. The sixth analysis shows that population size has no effect on e-government implementation. This is because the government's accountability is not based on the size of the population but based on its obligation to serve the wider community.

The limitation of this research lies in the 2020 sample which was not used because the e-Government assessment was only carried out in a few regions, this is because in 2020 the Covid 19 pandemic occurred so that the e-Government budget assessment was diverted to dealing with the Covid-19 pandemic. Further research can examine differences in e-Government implementation before and after the Covid-19 pandemic phenomenon. During Covid-19, people tend to use technology to access various information.

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