

The Impact of Digitalization on Village Budget Transparency and Accountability

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ABSTRACT

The purpose of this study is to analyze the impact of digitalization on the level of transparency and accountability in budget management in Mekar Sari Village, Muaro District, Jambi Regency. This study uses a quantitative correlational approach with a simple linear regression method. Data were collected through questionnaires administered to village officials and the local community. The analysis results indicate that digitalization has a positive and significant impact on increasing transparency and accountability in village fund management. Advances in digital technology in village administration help improve access to better information and ensure accountability for the use of village funds more effectively. These findings confirm that digitalization is an important tool in improving transparent and accountable village financial management.

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1. INTRODUCTION

Villages are responsible for managing their own governance, development, community development, and local community empowerment. [1] According to Law Number 6 of 2014, a village is an area in Indonesia that has the authority to manage its own governance independently, including handling village finances and managing village revenues. [2]

A budget is a form of detailed financial planning and is crucial for measuring the ability to exercise rights and factors that significantly influence the budget planning process. [3] Village budget management is a crucial part of government activities, providing detailed explanations of revenue and expenditure plans, allowing villages to be accountable for their actions or decisions and accept the impacts of those actions. [4]

Located in Kumpeh District, Mekar Sari Village is within the administrative area of Muaro Jambi Regency, Jambi Province, and is one of the villages that plays a significant role in regional development. It is one of 16 villages and one village community in Kumpeh District. [5] Village budget management requires participation, transparency, and accountability. Participation is the active involvement of residents or groups in implementing village budget management. [6] Transparency means the public can freely obtain information regarding budget implementation, processes, and management [7]. This is achieved through government policies so that the entire community can monitor it [8]. Accountability is the responsibility for all management activities, such as reporting, explaining, and being accountable for the budget that has been planned, used, and reported transparently and in accordance with applicable regulations [9].

In the implementation process, village budget management is a key factor in ensuring the use of village funds is on target and efficient. Village budget management is crucial to ensure the effective and targeted use of village funds [10].

2. METHOD

The village is the most basic government unit, spearheading the provision of public services. Its position is highly strategic because it serves as the primary indicator in assessing the success of development programs. Strengthening village capacity is seen as a crucial step in accelerating the achievement of community welfare, which is also a primary goal of regional autonomy. Thus, villages function not only as residential areas but also as centers for driving development and community welfare. Transparency in the context of government accountability refers to the condition in which the public has clear and open access to information related to processes, data, and results in the form of figures or values from the implementation of government activities. This is a crucial component of accountability because it indicates the state or quality of responsibility. This means how the government provides accessible and understandable reports to the public regarding the use and management of resources and program implementation. This is crucial for the public to understand and integrate government actions and their results. A financial plan is regularly designed using figures and expressed in monetary terms for a specific future period. A budget covers all activities of an organization or company and serves as a guide for planning, controlling, and managing resources to achieve organizational goals [11]. Budget accountability is the obligation to report on the planning, implementation, and use of funds to the public and oversight bodies. [12]. In Indonesia, Village Budget Management Law No. 6 of 2014 explains how village budgets are planned and ensures proper management of village autonomy, including transparent and accountable village assets, village administration, development, and community empowerment. This law serves as the primary legal basis for regional development, covering areas such as planning, budgeting, implementation, asset management, reporting, and financial accountability. [13]

This research was conducted through the following five stages:

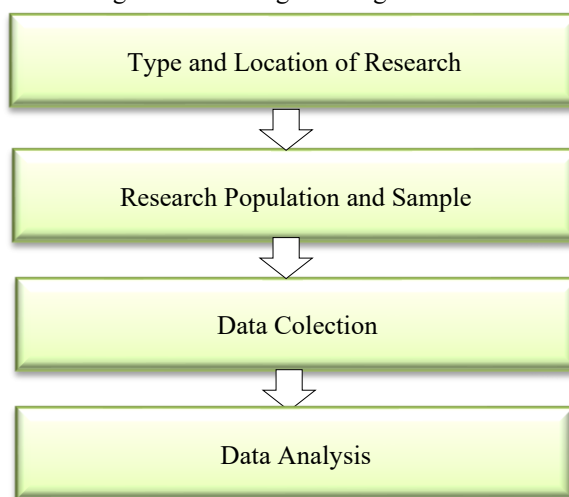


Figure 1. Method Steps

1. Type and Location of Research

This research uses a quantitative correlational approach. This research uses a quantitative correlational approach. Quantitative research is used to educate the public or sample through data collection that includes numerical data with the aim of confirming previously established hypotheses. The public or sample through data collection that includes numerical data with the aim of confirming previously established hypotheses [14]. This study was conducted in Mekar Sari Village, Muara Jambi Regency, Jambi Province.

2. Research Population and Sample

The researcher chose Mekar Sari Village as the research location for this study. Sampling is the method used for sample collection. This method involves interaction with local residents in the village, including the Village Head, Village Treasurer, Village Secretary, Village Consultative Body (BPD) members, Community Association (RW) heads, and Neighborhood Association (RT) heads. Village, Village Treasurer, Village Secretary, Village Consultative Body (BPD) Members, Community Association (RW) Heads, and Neighborhood Association (RT) Heads [15].

3. Data Collection

Through a questionnaire sent to the local government of Mekar Sari Village, Muara Jambi Regency, Jambi Province, the researcher collected initial data. The data relates to the impact of digitalization on transparency and accountability. The questionnaire used a Likert scale and measurement methods in this study to determine

the perceptions of the general public or groups regarding digitalization, transparency, and accountability. This measurement method in this study was used to determine the perceptions of the general public or groups regarding digitalization, transparency, and accountability [16].

4. Data Analysis

Data analysis is a process that involves collecting, reducing, presenting, and drawing conclusions from data. Simple linear regression analysis is a technique that aims to help readers understand research findings. Data were analyzed using simple linear regression to test the effect of digitalization on transparency and accountability in village budget management [17].

3. RESULTS AND DISCUSSION

Researchers collected data by distributing questionnaires to village officials and the Mekar Sari community. The questionnaire used data from five respondents, each representing the general public, on a Likert scale ranging from 1 to 5. These scores were then converted into a total score ranging from 20 to 100 to strengthen the measurement on an interval scale. This method was used to gauge the group's opinions and perceptions regarding digitalization, transparency, and accountability.

Table 1. Primary Data from Questionnaire Distribution Results

No	Digitalization (X)	Accountability (Y1)	Transparency (Y2)
1	30	40	35
2	45	55	50
3	60	60	55
4	75	75	65
5	90	85	80

Simple linear regression analysis is performed to determine the relationship between one independent variable (X) and one dependent variable (Y) through a straight line equation. The process begins by identifying the two variables, then visualizing them in a scatter plot to see the relationship pattern. Next, the regression equation is calculated using the least squares method to obtain the constant value (intercept) and the regression coefficient (slope). The resulting model is then tested statistically to see whether the relationship formed is significant, through the t test and the F test, and is strengthened by looking at the coefficient of determination (R^2) value which shows how much of the variation in Y can be explained by X. If the results are significant and the R^2 value is high enough, then the regression model is considered good and can be used to predict the value of Y based on the input value of X.

Simple Linear Regression Formula:

$$\text{Formula: } Y=a+Bx \quad (1)$$

Where:

Y = dependent variable (accountability or transparency)

X = independent variable (digitization)

a = intercept (value of Y when X=0)

b = regression coefficient (effect of 1 unit of X on Y)

a) The Effect of Digitalization (X) on Accountability (Y1)

Calculate the average of X and Y1:

$$\bar{x} = (30+45+60+75+90)/5=60$$

$$\bar{Y}1 = (40+55+60+75+85)/5=63$$

Calculate the Regression Coefficient b:

$$b = \frac{\sum(X_i - \bar{X})(Y1_i - \bar{Y}1)}{\sum(X_i - \bar{X})^2} \quad (2)$$

$$\begin{aligned}
& (X_i - \bar{X})(Y1_i - \bar{Y1}) \\
&= (30-60)(40-63) + (45-60)(55-63) + (60-60) \\
&\quad (60-63) + (75-60)(75-63) + (90-60)(85-63) \\
&= (-30)(-23) + (-15)(-8) + (0)(-3) + (15)(12) + (30)(22) \\
&= 690 + 120 + 0 + 180 + 660 \\
&= 1650
\end{aligned}$$

$$\begin{aligned}
& (X_i - \bar{X})^2 \\
&= (-30)^2 + (-15)^2 + (0)^2 + (15)^2 + (30)^2 \\
&= 900 + 225 + 0 + 225 + 900 \\
&= 2250
\end{aligned}$$

$$b = \frac{1650}{2250} = 0.7333$$

Calculate Intercept a:

$$\begin{aligned}
\alpha &= \bar{Y1} - b \times \bar{X} & (3) \\
&= 63 - 0.7333 \times 60 \\
&= 63 - 44 \\
&= 19
\end{aligned}$$

Variable Relationship

X → Y1 (Accountability)

$$Y1 = 19 + 0.7333X$$

0.7333 (Strong positive effect)

If the digitalization score increases by 1 point, the accountability score increases by 0.7333 points. When the digitalization score is 0 (theoretically), accountability is assumed to be at 19. Relationship: There is a strong positive relationship between digitalization and accountability. The greater the digitalization implemented in village management, the higher the accountability demonstrated by village officials and the budget management process.

b) The Effect of Digitalization (X) on Transparency (Y2)

Calculate the average of Y2:

$$\begin{aligned}
\bar{Y2} &= (35 + 50 + 55 + 65 + 80) / 5 \\
&= 57
\end{aligned}$$

Calculate Linear Regression Coefficient (b) :

$$\begin{aligned}
& \sum(X_i - \bar{X})(Y2_i - \bar{Y2}) & (4) \\
&= (30-60)(35-57) + (45-60)(50-57) + (60-60)(55-57) \\
&= (-30)(-22) + (-15)(-7) + (0)(-2) + (15)(8) + (30)(23) \\
&= 660 + 105 + 0 + 120 + 690 \\
&= 1575
\end{aligned}$$

$$b = \frac{1575}{2250}$$

Calculate the intercept (a):

$$\begin{aligned} a &= \bar{Y}_2 - b \times \bar{X} \\ &= 57 - 0.7 \times 60 \\ &= 57 - 42 \\ &= 15 \end{aligned} \tag{5}$$

Variable Relationship

X → Y2 (Transparency)

$$Y_2 = 15 + 0.7X$$

0.7

If digitalization increases by 1 point, transparency will increase by 0.7 points. The initial transparency value when digitalization is 0 is 15. The Relationship between Digitalization (X) and Transparency (Y2) shows a fairly strong positive relationship between digitalization and transparency. This indicates that increased digitalization will also strengthen information transparency, public access to budget data, and public oversight of village policies.

4. CONCLUSION

Digitalization of the village financial system has a positive impact on management accountability. about management accountability. Digitalization also has a positive impact on transparency has a positive impact on the transparency of the village management budget. The regression coefficient shows that increasing digitalization can significantly improve both aspects, although quantitatively the effect on accountability is slightly greater. Explanation This is based on initial research findings that show that digitalization has a strong effect on accountability and transparency of village financial management, for example the results of a simple linear regression with a determination value of around 70% for accountability.

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