Effect of Digital Literature, Performance, and Organization-Culture on Development of Smart Government in Forming Good Governance of Village

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Abstract

This study analyzed the level of relationship and effect of digital literacy, performance, and organizational culture on smart government towards good governance. The research method used was quantitative with a questionnaire instrument. The data analysis used Structural Equation Model (SEM) by testing direct and mediation relationships. The results showed that digital literacy, performance, and organizational culture had a positive and significant effect on smart government. Second, digital literacy, performance, and organizational culture had a positive and significant effect on good governance through smart government mediation. The model used was classified in the sufficient category. This study can be used as material for further research with the results that have been achieved. The utilization of ICT builds smart government by considering the quality of digital literacy, performance, and organizational culture. The achievement of good governance in the future will also be a form of improving the quality of government, especially in services to the community.

Keywords: Good Governance; Smart Government; Digital Literacy; Performance; Organizational Culture

JEL classification: H0, R5

1. Introduction

Government is an important element in the existence of a country. In Indonesia, for example, the government is one of the main foundations of the establishment of the country. In this case, the government is assigned with regulating all affairs that are within the jurisdiction of the country, one of which is related to government interaction with the community. Indonesia, which is a constitutional state with sovereignty in the hands of the
community, must prioritize the government’s political services to the community. Service to the community requires a humanist approach and pays attention to the socio-cultural conditions of the community.

The presence of technology is the direction of civilization that is being lived today. In the 21st century, technology has entered all elements of life, including in family life, in school, in work, and in government as well. Nowadays, the use of technology, especially information and communication technology as well as digital technology in government, has become a major issue in research and development. The utilization of information and communication technology in the government is used to accelerate the transfer of information from the government to the community. It is used to improve the quality of government services.

Good and suitable government services can be categorized in good governance. The first success of the government is participation. The participation involves community participation in political policymaking. Regarding political policies, the government system in Indonesia has started to implement regional autonomy which provides local governments with some flexibility to manage their own regions. Local governments are considered to be able to interact more intensely with the community than from central governments. Thus, this participation can be optimized by the local government. This participation allows policies to be implemented with the best deliberation without causing harm to any party (Desselle, Zgarrick and Ramachandran, 2021). The second requirement of good governance is accountability. What is meant by accountability is the establishment of responsibility for every policy imposed by the local government. This accountability can be realized in various ways. The realization adapts to the accountability purposes. In the end, accountability to the community is a top priority. The use of information and communication technology (ICT) is one of the catalysts in accelerating this accountability service. The third requirement to be good governance is integrity (Wirtz, Weyerer and Schichtel, 2019). Integrity is one of the elements that must be attached to the attitude of government officials. Integrity is a good attitude that has an impact on the progress of the organization. The dimensions of integrity consist of being honest, committed, and doing things consistently. The government will enter the category of good governance if it meets these 3 requirements.

Initial observations were made by distributing questionnaires to the sample consisting of several village government officials in the Kebumen Regency to determine the readiness of good governance in terms of 3 indicators, including participation, accountability, and integration. The following are the results of the initial observations:

**Table 1: Initial observations of good governance indicators**

<table>
<thead>
<tr>
<th>No.</th>
<th>Good governance indicators</th>
<th>The most common answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Participation</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Accountability</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Integrity</td>
<td>3</td>
</tr>
</tbody>
</table>

(Source: Processed primary data, 2021)
Based on Table 1, the most common answers are 3 for participation and integrity and 2 for accountability. The questionnaire distributed is an attitude scale on a scale of 1 to 7. These results show that the respondents mostly chose 'not suitable' and 'somewhat not suitable' attitudes. These results can provide an overview that, at the village government level, it cannot be categorized as an attitude towards good governance. Besides, it turns out that the application or technology used to disseminate village information is not used properly. Several members of the community who were involved as the sample for the initial observations stated that they did not receive village information and were not included in village decision-making participation.

The success of good governance is affected by several factors. Good governance can be created through a government that can really control and make good use of technology (Eom, Choi and Sung, 2016). This kind of government is currently a strong implementation of the smart government concept. Smart government is not necessarily formed easily. The success of a smart government is not only supported by a strong technological infrastructure but also the quality of human resources of government officials (Ekasari, Noermijati and Dewanto, 2020). The quality of human resources is in terms of digital literacy, the performance of government officials, and organizational culture (Hinrichsen and Coombs, 2013; Isensee et al., 2020; Li, Brar and Rohin, 2021). Based on this background, the formulation of the problems that can be formulated include: (1) is there a positive relationship between the digital literacy variable on smart government? (2) is there a positive relationship between the performance variable on smart government? (3) is there a positive relationship between the organizational culture variable on smart government? (4) is there a positive relationship between the digital literacy variable on good governance through smart government? (5) is there a positive relationship between the performance variable on good governance through smart government? (6) is there a positive relationship between the organizational culture variable on good governance through smart government? (7) is there a direct positive relationship between the smart government variable on good governance?

### 1.1 Literature Review

**Good Governance**

Good governance is a conceptual form of the government’s main goal to create governance in a preferred way and benefit the community. Good governance indicators consist of participation, accountability, and integrity (Subhan Mollick *et al.*, 2018). Participation is the involvement of a person in a situation whether mentally, in terms of mind or emotions and feelings that encourage them to contribute to contribute in an effort to achieve the pre-determined goals and take responsibility for the activities of achieving these goals. In the context of government, this involvement is the community’s share in village government policies (Dijkstra, 2018). Establishing this involvement requires a long process to build public trust. This trust can be created with the transparency of information from the government (Praharaj, Han and Hawken, 2017; Fennell *et al.*, 2018; Albaitiy, Md Noman and Mallek, 2020; Mansoor, 2021). This has a relationship with the next indicator, accountability. Accountability is a basic requirement to prevent abuse of power and to ensure that power is directed towards achieving broader national goals with the highest levels of efficiency, effectiveness, honesty, and discretion (Fennell *et al.*, 2018;...
Gonzalez, Ferro and Liberona, 2020; Tjahjadi, Soewarno and Mustikaningtiyas, 2021). Transparency of policies, data, and information is important in building accountability. This accountability can be created through an honest attitude from the government. Honesty is part of integrity. Meanwhile, integrity is more about the “heart”, which is the ability of the conscience which includes, among others, honesty, sincerity, commitment, and so on (Mansoor, 2021).

**Smart Government**

Smart government is a concept of intelligent government that is able to utilize information and communication technology. The use of ICT can affect the effectiveness and efficiency of government information transfer to the community. Smart government is a step in meeting the government’s goals, among others, in maximizing policies, more effective services, and more efficient bureaucracies. Smart government has several development indicators (Fennell et al., 2018; Lin, 2018; Gonzalez, Ferro and Liberona, 2020). These indicators are the use of ICT and e-government, transparency and openness of data, and the ability to accommodate demand and supply in policymaking.

**Digital Literacy**

The skills to use digital information are important to success in most disciplines and occupations (Fumagalli, Rezende and Guimarães, 2021). Critical thinking skills are essential for anyone in the digital world. Critical digital literacy is the ability to locate the relationship between digital practice and power and has the capacity to understand sociocultural contexts (Greene, Yu and Copeland, 2014). Digital literacy is the ability to access various sources of information practically and the ability to share from various media, as well as the ability to present and communicate using processes and tools appropriately (Ng, 2012). This is the individual awareness, attitude, and ability to use digital tools and facilities suitably to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, build new knowledge, create media expressions, and communicate with others, in the context of particular life situations, to enable constructive social action; and to reflect on this process (Hinrichsen and Coombs, 2013).

Digital literacy must be positioned as a right for the community that support their full participation in a society where social, cultural, political, and financial life is increasingly mediated by digital literacy (Li, Brar and Roihan, 2021). Digital literacy is the ability to access, understand, and create knowledge by using devices, platforms, and gadgets commonly called digital communication or information technology (ICT) (Praharaj, Han and Hawken, 2017; Li, Brar and Roihan, 2021). Another thing from a comprehensive definition of digital literacy is the knowledge, attitudes, and skills needed to identify, find, access, retrieve, store, and organize information (Ahmad et al., 2016). The focus is mainly on solving problems, building new knowledge through technology and media in a critical, creative, flexible, ethical way. Digital literacy is the ability to use digital technology, communication tools, or networks to find, evaluate, use, and create information. It also refers to the ability to understand and use information in multiple formats from various sources when presented via a computer, or as a person’s ability to perform tasks effectively in a digital environment (Fennell et al., 2018).
There are many theories regarding digital literacy developed by many researchers. In this study, the theory used is the theory of the formation of digital literacy introduced by Bawden which connects digital literacy with computer literacy and information literacy. Bawden’s conception consists of basic literacy skills, background knowledge of information, skills in the field of ICT, and attitudes and perspectives of information users (Hinrichsen and Coombs, 2013).

**Village Government Performance**

Government performance is one of the determining factors for the establishment of the smart government concept. The performance of government officials makes the quality of human resources better. This performance can be measured by several indicators. These indicators include data and information disclosure, accountability, responsibility, as well as effectiveness and efficiency (Pitafi et al., 2018; Peiró et al., 2020; Desselle, Zgarrick and Ramachandran, 2021). By using these indicators, government performance can be measured and shown to reach certain categories.

**Organizational Culture**

Organizational culture is like a building environment to make the realization of smart government. The concept of organizational culture is the guidance of an organization or company so that it is able to distinguish the organization from other organizations (Isensee et al., 2020). Therefore, organizational culture involves all experiences, philosophies, expectations and all the values contained in it, so that later it will be reflected in the activities of each member, starting from work, interactions with the external environment, to expectations that are expected to be realized in the future (Javanmardi Kashan, Wiewiora and Mohannak, 2021; Liu, Tsui and Kianto, 2021). Organizational culture, although generally a difficult concept to measure, can be distinguished by using several indicators. These indicators include the ability to express opinions, have individual initiatives, have teamwork, become a unit in the organization, are not emotional in responding to risks, and have the power of acceptance of existing differences (Lingmont and Alexiou, 2020; Ferine et al., 2021; Rostain, 2021).

**2. Methods**

This study was conducted in a number of villages in Kebumen. There are 26 districts in Kebumen Regency. Of these 26 districts, a proportional sample was taken from each village per district. The research was conducted from May 2021 to August 2021. The method used in this study was quantitative research with a type of descriptive research. This study used the descriptive quantitative method because it tried to provide solutions to existing problems based on data so that it is in the form of numbers that are analyzed and interpreted. The variables in this study consisted of digital literacy as variable X1 (independent), government performance as variable X2 (independent), organizational culture as variable X3 (independent), smart government as variable M (mediation), and good governance as variable Y (dependent).

The population in this study were all residents of Kebumen Regency with a total of 1,350,438 residents. The determination of the number of the sample used the Slovin formula with a standard error of 10%. The calculation results are as follows:
n = \frac{N}{(1+(Nx^2))} = \frac{1350438}{(1+(1350438x0.1^2))} = \frac{1350438}{(1+1350438x0.01))} = \frac{1350438}{13505.38} = 99.99 = 100

The sampling technique used in this study was probability sampling with the type of proportional random sampling. The proportional random sampling technique is a side technique in which the population is grouped and then taken randomly with balanced proportions according to the position in the population. The use of this sampling technique is based on a homogeneous population that has a definite number.

The data collection technique used a closed questionnaire with a Likert scale of 1-4. The validity technique used the Pearson formula (product moment) with the criteria of r count > r table, while the reliability used Cronbach’s alpha formula with the criteria of ≥ 0.60. The assumption test used the Shapiro Wilk normality test with the criteria of more than 0.05 at a tolerance of 5%. The hypothesis testing used a multiple linear regression model through SPSS application version 23.

Table 2: Sample of each sub-district

<table>
<thead>
<tr>
<th>District</th>
<th>Population</th>
<th>%</th>
<th>N</th>
<th>District</th>
<th>Population</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kebumen</td>
<td>131.749</td>
<td>9.76%</td>
<td>10</td>
<td>Mirit</td>
<td>51.524</td>
<td>3.82%</td>
<td>4</td>
</tr>
<tr>
<td>Sempor</td>
<td>68.121</td>
<td>5.04%</td>
<td>5</td>
<td>Rowokele</td>
<td>50.295</td>
<td>3.72%</td>
<td>4</td>
</tr>
<tr>
<td>Alian</td>
<td>65.776</td>
<td>4.87%</td>
<td>5</td>
<td>Gombong</td>
<td>50.196</td>
<td>3.72%</td>
<td>4</td>
</tr>
<tr>
<td>Buayan</td>
<td>64.643</td>
<td>4.79%</td>
<td>5</td>
<td>Kuwarasan</td>
<td>50.157</td>
<td>3.71%</td>
<td>4</td>
</tr>
<tr>
<td>Ayah</td>
<td>63.886</td>
<td>4.73%</td>
<td>5</td>
<td>Kutowinangun</td>
<td>47.518</td>
<td>3.52%</td>
<td>4</td>
</tr>
<tr>
<td>Klirong</td>
<td>63.305</td>
<td>4.69%</td>
<td>5</td>
<td>Karangsambung</td>
<td>46.528</td>
<td>3.45%</td>
<td>3</td>
</tr>
<tr>
<td>Puring</td>
<td>62.788</td>
<td>4.65%</td>
<td>5</td>
<td>Karanganyar</td>
<td>37.269</td>
<td>2.76%</td>
<td>3</td>
</tr>
<tr>
<td>Ambal</td>
<td>61.901</td>
<td>4.58%</td>
<td>5</td>
<td>Adimulyo</td>
<td>37.152</td>
<td>2.75%</td>
<td>3</td>
</tr>
<tr>
<td>Sruweng</td>
<td>60.779</td>
<td>4.50%</td>
<td>5</td>
<td>Prembun</td>
<td>28.478</td>
<td>2.11%</td>
<td>2</td>
</tr>
<tr>
<td>Petanahan</td>
<td>59.724</td>
<td>4.42%</td>
<td>4</td>
<td>Sadang</td>
<td>22.294</td>
<td>1.65%</td>
<td>2</td>
</tr>
<tr>
<td>Buluspesantren</td>
<td>58.175</td>
<td>4.31%</td>
<td>4</td>
<td>Bonorowo</td>
<td>20.962</td>
<td>1.55%</td>
<td>2</td>
</tr>
<tr>
<td>Karanggayam</td>
<td>57.993</td>
<td>4.29%</td>
<td>4</td>
<td>Poncowarno</td>
<td>18.044</td>
<td>1.34%</td>
<td>1</td>
</tr>
<tr>
<td>Pejagoan</td>
<td>54.834</td>
<td>4.06%</td>
<td>4</td>
<td>Padureso</td>
<td>16.347</td>
<td>1.21%</td>
<td>1</td>
</tr>
</tbody>
</table>
3. Result

3.1 Validity and Reliability Tests

The validity test used the product moment formula using SPSS 23. The research criteria required \( r_{\text{count}} > r_{\text{table}} \). The analysis of this study showed that the \( r_{\text{table}} \) was 0.20. The results of the validity test showed that all of the 60 statement items met the criteria for \( r_{\text{count}} > r_{\text{table}} \). These results showed that all statements used to test the hypothesis met the validity test requirements. The reliability showed that the statement item had Cronbach’s alpha of \( \geq 0.60 \), which was 0.994. These results indicated that the questionnaire was feasible to be distributed.

Table 3: Results of reliability analysis

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
</tr>
<tr>
<td>0.994</td>
</tr>
</tbody>
</table>

3.2 Path Analysis Results

The results of the analysis are derived and presented in a table form as follows:

Table 4: Relationship Between Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable X1 ( \rightarrow ) Variable M</td>
<td>0.653</td>
<td>Direct</td>
</tr>
<tr>
<td>Variable X2 ( \rightarrow ) Variable M</td>
<td>2.382</td>
<td>Direct</td>
</tr>
<tr>
<td>Variable X3 ( \rightarrow ) Variable M</td>
<td>1.724</td>
<td>Direct</td>
</tr>
<tr>
<td>Variable X1 ( \rightarrow ) Variable M ( \rightarrow ) Variable Y</td>
<td>3.143</td>
<td>Indirect</td>
</tr>
<tr>
<td>Variable X2 ( \rightarrow ) Variable M ( \rightarrow ) Variable Y</td>
<td>11.466</td>
<td>Indirect</td>
</tr>
<tr>
<td>Variable X3 ( \rightarrow ) Variable M ( \rightarrow ) Variable Y</td>
<td>15.130</td>
<td>Indirect</td>
</tr>
<tr>
<td>Variable M ( \rightarrow ) Variable Y</td>
<td>4.814</td>
<td>Direct</td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2021

This result showed the coefficient of the path that had been made based on the fit model. Based on the results of the analysis, all variables are interrelated and form a positive influence. There are 5 variables consisting of 3 independent variables, 1 mediating variable, and 1 dependent variable. The path relationship starts from the digital literacy variable to the smart government variable. Then, the performance variable towards the
smart government variable. The organizational culture variable towards the smart government variable. The last one is a direct path from the smart government variable towards the good governance variable. Meanwhile, this model has 3 indirect paths. First, the digital literacy variable towards good governance through smart government. Second, the performance variable towards good governance through smart government. Third, the organizational culture variable towards good governance through smart government. Through this path, the following is a detailed image of the path used in the model.

![Path Analysis Diagram]

**Figure 1: Path Analysis**

### 3.3 Hypothesis Testing

The hypothesis testing in this study used the regression weight analysis of the significance of the magnitude. This analysis was carried out to determine the overall effect, direct effect, and indirect effect of the relationship between the variables researched. The basis for making decisions on this significance test include:

1. If the p-value < alpha 0.05, then the hypothesis becomes null (0), and H0 is rejected, indicating that there is an effect between the two variables statistically (significant).
2. If the p-value > alpha 0.05, then the hypothesis becomes null (0) and H0 fails to be rejected, indicating that there are no effects between the two variables statistically (significant).

The following is a table of results of the analysis of the amount of regression on the path diagram.
Table 6: Weight Regression Results

<table>
<thead>
<tr>
<th>Path</th>
<th>Standardized Beta</th>
<th>p-value</th>
<th>Decision</th>
<th>Types of Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable X1 → Variable M</td>
<td>0.323</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
<tr>
<td>Variable X2 → Variable M</td>
<td>0.458</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
<tr>
<td>Variable X3 → Variable M</td>
<td>0.380</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
<tr>
<td>Variable X1 → Variable M → Variable Y</td>
<td>0.320</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
<tr>
<td>Variable X2 → Variable M → Variable Y</td>
<td>0.454</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
<tr>
<td>Variable X3 → Variable M → Variable Y</td>
<td>0.376</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
<tr>
<td>Variable M → Variable M</td>
<td>0.991</td>
<td>0.000</td>
<td>Significant</td>
<td>Positive</td>
</tr>
</tbody>
</table>

The results of the Regression Weight as shown in Table 6 above show significant values, indicating that all relationships of the variables have a significant effect. The following are the results of the hypothesis testing in detail:

*There is a positive and significant relationship between digital literacy and smart government*

Based on the results of the analysis, the standard beta is at 0.323 and the criteria of the p-value of 0.000 are below 0.05. These results show that the relationship between digital literacy and smart government is positive and significant.

*There is a positive and significant relationship between performance and smart government*

Based on the results of the analysis, the standard beta is at 0.458 and the criteria of the p-value of 0.000 are below 0.05. These results show that the relationship between performance and smart government is positive and significant.

*There is a positive and significant relationship between organizational culture and smart government*

Based on the results of the analysis, the standard beta is at 0.380 and the criteria of the p-value of 0.000 are below 0.05. These results show that the relationship between digital literacy and smart government is positive and significant.

*There is a positive and significant relationship between digital literacy and good governance through smart government*
Based on the results of the analysis, the standard beta is at 0.320 and the criteria of the p-value of 0.000 are below 0.05. These results show that the relationship between digital literacy and good governance through smart government is positive and significant.

*There is a positive and significant relationship between performance and good governance through smart government*

Based on the results of the analysis, the standard beta is at 0.454 and the criteria of the p-value of 0.000 are below 0.05. These results show that the relationship between performance and good governance through smart government is positive and significant.

*There is a positive and significant relationship between organizational culture and good governance through smart government*

Based on the results of the analysis, the standard beta is at 0.376 and the criteria of p-value of 0.000 are below 0.05. These results show that the relationship between organizational culture and good governance through smart government is positive and significant.

*There is a positive and significant relationship between smart government and good governance*

Based on the results of the analysis, the standard beta is at 0.991 and the criteria of the p-value of 0.000 are below 0.05. These results show that the relationship between smart government and good governance is positive and significant.

4. **Conclusions**

The results of the study show that all relationships and pathways are proven to be positively and significantly related. Moreover, the relationship between the variables of smart government and good governance is almost very significant (Fennell *et al.*, 2018; Albassam, 2019; Kankanhalli, Charalabidis and Mellouli, 2019; Desselle, Zgarrick and Ramachandran, 2021). Smart government is indeed designed and applied to form good governance which is finally conceptualized in good government. In the digital literacy variable, it has been proven to be able to influence smart government (Praharaj, Han and Hawken, 2017; Klimach, Dawidowicz and Źróbek, 2018; Kankanhalli, Charalabidis and Mellouli, 2019). Likewise, it can be seen in the variables of performance and organizational culture. These results explain that smart government can be developed through the variables of digital literacy, performance, and organizational culture (Ng, 2012; Chatfield and Reddick, 2019; Isensee *et al.*, 2020; Liu, Tsui and Kianto, 2021). These results can be applied in the further development of smart government to consider digital literacy, performance, and organizational culture in achieving good governance. This study can be used as material for further research with the results that have been achieved. The utilization of ICT builds smart government by considering the quality of digital literacy, performance, and organizational culture.

The achievement of good governance in the future will also be a form of improving the quality of government, especially in services to the community.
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