JAMBURA JOURNAL OF INFORMATICS
Volume 6, No. 1 | April 2024: 40-51
ISSN 2685-4244, doi: 10.37905/jji.v6i1.24742

Measuring the success of village information systems using the DeLone and McLean model

Muhammad Rifai Katili, Mohamad Syafri Tuloli, Rahmat Taufik R. L. Bau, Iin Utina
Information Systems Study Program, Universitas Negeri Gorontalo, Indonesia

Article History:
Accepted March 14, 2024
Revised April 19, 2024
Approved April 30, 2024

Keywords:
DeLone and McLean
Information quality
Net benefit
System quality
Village information system

ABSTRACT. This study aims to measure the successful implementation of the Village Information System (SID) in East Tabongo village, Gorontalo Regency, using the DeLone and McLean model. This model measures the success of information systems based on six dimensions: system quality, information quality, service quality, usage, user satisfaction, and net benefits. Data were collected through a survey of 257 users of SID in East Tabongo village. Data analysis was conducted using Partial Least Square Structural Equation Modeling (PLS-SEM) to test the relationship between the DeLone and McLean model variables. The results showed that system quality, information quality, and user satisfaction positively influence net benefits. Meanwhile, service quality and usage do not significantly affect net benefits. These findings suggest that efforts must be made to improve the quality of services and the use of SID to maximize the community's benefits. Socialization and training for SID users also need to be carried out to improve understanding and skills in using SID.

Corresponding Author :
Iin Utina,
Universitas Negeri Gorontalo,
Jl. Prof. Dr. Ing. B. J. Habibie, Gorontalo, Indonesia.
Email: iinutina41@gmail.com

INTRODUCTION

The Sistem Informasi Desa (SID) is an integral part of village development and rural area development. SID makes it easier for villages to compile digital data and information about the objective conditions of the village, develop village development planning, direct village development work in a systematic, measurable, targeted, sustainable manner, and focus the prioritization of village fund utilization by the needs of the village's citizenship and territoriality (Budiman, 2021). The goal is to improve the quality and efficiency of public services and encourage community participation in village development (Rahmi et al., 2023). The implementation of SID is also expected to increase the transparency and accountability of village governments (Lailiyah, 2022).

As a national program, SID is interesting to study, given its potential to encourage community responsibility and participation in village development. Although SID has been implemented in many villages across Indonesia, its implementation in different villages still varies. Research shows a gap between the national policy and its implementation at the village level (Dewi et al., 2023; Nur et al., 2023; Sodiq & Furqon, 2024). This gap is caused by several factors, such as a lack of human and financial resources in the village (Supiyandi et al., 2022), lack of training and mentoring for village officials and communities (Alibas & Saz, 2021; Erida et al., 2023), lack of socialization and education about SID to the community (Mardinata et al., 2023; Atmojo et al., 2022; Silfiana & Putra, 2022)

In the context of SID implementation, the East Tabongo Village Government of Gorontalo District has implemented SID since 2021. However, although the implementation of SID in East Tabongo

village, Gorontalo District, has great potential, some limitations still need to be seen. This is partly due to the community's lack of use of SID, barriers to service quality, and a lack of understanding of the benefits of SID. In addition, the extent of the success and benefits of SID implementation in East Tabongo village, Gorontalo District, still needs to be discovered.

Several previous studies have been conducted to measure the success of SID implementation in Indonesia. However, these studies still have several limitations. First, many studies used quantitative methods with small and unrepresentative samples (Pujiantoro et al., 2023; Sutoyo, 2023) Second, only some studies still need to use the DeLone and McLean model to measure the success of SID implementation (Tresnawan et al., 2020). The DeLone and McLean model is considered more comprehensive because it measures six dimensions: system quality, information quality, service quality, usage, user satisfaction, and net benefits (Delone & McLean, 2002, 2003; DeLone & Mclean, 2020; Elazzaoui, 2023; Setiadi et al., 2023).

This study aims to measure the success of SID implementation in East Tabongo village using the DeLone and McLean model by analyzing the influence of system quality, information quality, service quality, usage, and user satisfaction on the net benefits of SID in East Tabongo village. In addition, this study is expected to provide recommendations to improve the success of SID implementation in East Tabongo village, Gorontalo Regency, and other villages in Indonesia.

METHOD

Research Stages

The first stage is a literature study, which looks at various journal articles related to SID, the DeLone and McLean model, and the theoretical framework to be used. The second stage is problem formulation. The third stage is designing a research model by determining DeLone and McLean as a theoretical framework and determining hypotheses (DeLone, 2020). Then, the instrument's preparation is carried out, which is continued to stage 5 to collect data using a questionnaire on a Likert scale (1-5). Furthermore, at stage 6, data analysis uses the PLS-SEM method with the Smart PLS 4.0 tool (Chua, 2024; Mariano & Plá, 2023; Sabol et al., 2023). Then, at stage 7, the results and discussion are interpreted based on the results of the previous analysis. In stage 8, recommendations and conclusions are formulated.

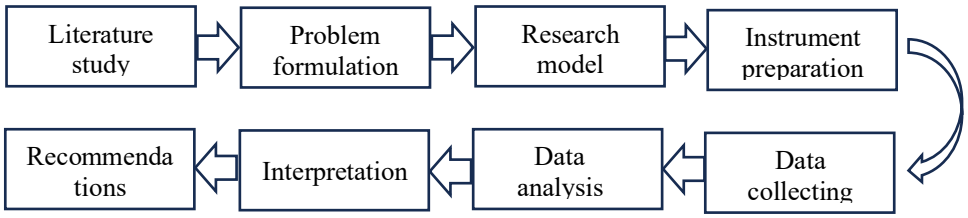

Figure 1. Research stages

Research Model

This study uses the DeLone and McLean (2003) model to determine the success of SID implementation. The model has six measurement variables: system quality, information quality, service quality, system usage, user satisfaction, and net benefits. This research model is shown in Figure 2.

Based on the research model, the following hypothesis was proposed:

H_1: System quality is having a significant effect on system usage

H_2: System quality is having a significant impact on user satisfaction
H_3: Information quality is having a significant impact on system usage
H_4: Information quality is having a significant impact on user satisfaction
H_5: Service quality is having a significant effect on system usage
H_6: Service quality is having a significant impact on user satisfaction
H_7: The use of the system is having a significant impact on user satisfaction
H_8: The use of the system is having a significant impact on net benefits
H_9: User satisfaction is having a significant impact on net benefits

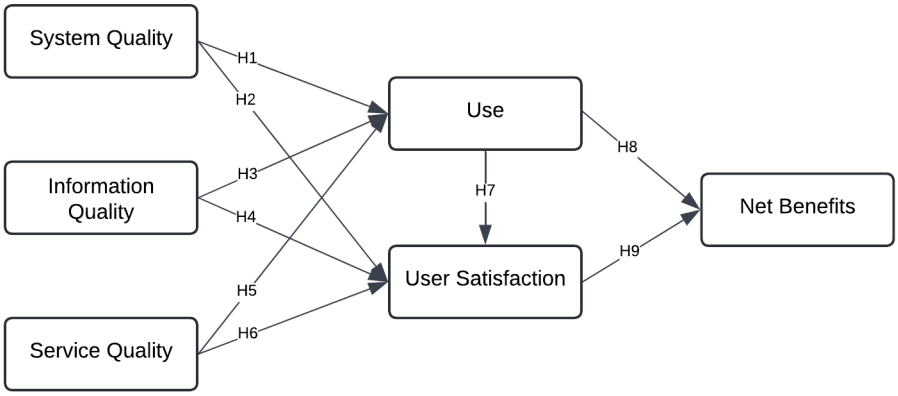

Figure 2. Research model

Variables and Indicators

This study used a questionnaire as a primary data collection instrument by following the research model shown in Table 1. The questions/statements in the questionnaire were divided into two parts. The first part contained questions regarding the demographic information of the participants. In contrast, in the second part, participants were presented with statements equipped with a four-point Likert scale, namely 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Agree (A), and 4 = Strongly Agree (SA). A modified version of the original DeLon & McLean (2003) measurement was used to assess user perceptions of system performance.

Table 1. Measurement instruments

Variables and Indicators	**Items**
System Quality (SQ)	
Ease of use	The SID website is easy to understand and operate.
Reliability	The SID website can serve my information needs without any problems.
System response time	I did not have to wait long to get information after accessing the SID Website.
Flexibility	I can access the SID website anywhere if there is internet, either via smartphone or computer.
Information Quality (IQ)	
Completeness	I got complete information from the SID website.
Relevant	The information I searched for and got from the SID website suited my needs.
Accuracy	The information I got from the SID website was unambiguous and error-free
Punctuality	The information I get from the SID website is always up-to-date.
Information presentation format	I can easily understand the information presented on the SID website.
Service Quality (SQ)	

Variables and Indicators	Items
Guarantee	I am confident that I can access the information I need on the SID website because it is reliable.
	I can contact the website manager when a problem occurs.
Empathy	The SID website provides valuable and adequate information for my needs.
Responsiveness	The SID website displays the information I need quickly and precisely.
Usage (U)	
Frequency of use	Within a week, I often access the SID website.
Nature of use	I often access the SID website to get information related to activities in the village.
User Satisfaction (US)	
Information satisfaction	I am satisfied that the SID website helps me quickly find the information I need.
	I am satisfied with the information presented on the SID website as expected to meet my needs.
Complete satisfaction	I am satisfied with the quality and service provided by the SID website.
Net Benefits (NB)	
Increase knowledge sharing	The SID website increases my knowledge.
	The SID website allows me to share the information I get quickly.
Reduces information search time	The SID website reduces the time I spend looking for information related to village activities.

Sample Size and Data Collection

The population in this study was taken from residents of East Tabongo village who had registered as self-service users on the SID website, and there was a total of 807 people. To ensure the number of representative samples, the Slovin formula was used with an error rate of 5% so that the number of research samples was 257 respondents. Furthermore, purposive sampling was used to select respondents with specific relevant characteristics, namely having access to the internet, villagers aged (20-59 years), and at least three times using SID in the last six months. Then, the stratified random sampling technique was used to draw random samples from each characteristic stratum in proportion to the stratum's size.

Data analysis

The research data analysis used the SEM equation model with the help of the SmartPLS 4.0 application. PLS-SEM consists of two models: the outer model, also called the measurement model, and the inner model, also called the structural model. The measurement model (outer model) is a test to specify the relationship between latent variables and their indicators. Meanwhile, the structural (inner) model aims to identify the relationship between latent variables, namely the independent and dependent variables.

Results and Discussion

Respondent Demographics

Table 2 presents demographic information for the respondents. The respondents were 257 community members in East Tabongo Village, who were contacted through questionnaires.

Table 2. Respondent demographic data

Category	Object	Frequency Percentage
Gender	M	39%
	F	61%
Age	20-34	70%
	35-49	28%
	50-59	2%
Education	elementary school	8%
	junior high school	26%
	senior high school	42%
	Undergraduate	23%
	Postgraduate	1%
Type of work	Trader	9%
	Private employees	6%
	Student	2%
	Farmer	12%
	civil servants	10%
	Army/Police	1%
	Self-employed	18%
	Other	42%
Length of System Use	< 6 months	7%
	Six months – 1 year	72%
	> 1 year	21%
Frequency of Use	Almost every day	1%
	Once a month	67%
	Once in 4-5 days	4%
	Once a week	28%

Measurement Model

This analysis was conducted to assess the validity and ensure the reliability of the questionnaires used in the study. This ensures that the questionnaire can precisely and consistently measure the variables. The test indicators used include *convergent validity, average variance extracted (AVE), discriminant validity,* and *Cronbach's alpha*.

The following are the test results of *the outer model*

a) *Convergent Validity*

Convergent validity *testing* is to determine the validity of each relationship between indicators and their latent constructs or variables. The value *of convergent validity* or an indicator can be considered valid when the indicator's value is, by the *rule of thumb, convergent validity* used to measure where the value of *the standardized loading factor* > 0.6. The value of *the loading factor* can be seen in Table 2.

Table 2. Results of *convergent validity testing*

	Information Quality	Service Quality	User Satisfaction	System Quality	Net Benefit	Use	Information
IQ1	0.668						Valid
IQ2	0.955						Valid
IQ3	0.973						Valid
IQ4	0.967						Valid
IQ5	0.831						Valid
SQ1		0.758					Valid
SQ2		0.858					Valid
SQ3		0.868					Valid
SQ4		0.853					Valid

	Information Quality	Service Quality	User Satisfaction	System Quality	Net Benefit	Use	Information
US1			0.892				Valid
US2			0.919				Valid
US3			0.633				Valid
SVQ1				0.649			Valid
SVQ2				0.791			Valid
SVQ3				0.835			Valid
SVQ4				0.799			Valid
NB1					0.896		Valid
NB2					0.912		Valid
NB3					0.877		Valid
U1						0.867	Valid
U2						0.915	Valid

Table 2 shows that the loading *factor* results on all indicator items for each construct meet *convergent validity*.

b) *Average Variance Extracted* (AVE)

Another measurement of *convergent validity* is the AVE value. This value reflects the amount of variance or level of diversity of each indicator contained in the latent variable, which can be fulfilled if each variable has an AVE value of > 0.5. The results of the AVE value test can be seen in Table 3.

Table 3. *Average Variance Extracted (AVE)* test results

	AVE	Set Value	Information
Information Quality	0.786	> 0.5	Valid
User Satisfaction	0.680		Valid
Service Quality	0.698		Valid
Net Benefits	0.801		Valid
Use	0.794		Valid
System Quality	0.596		Valid

Table 3 shows that all variables have an AVE> value of 0.5, so they have an excellent construct of validity.

c) *Discriminant Validity*

Discriminant validity *testing* ensures that each indicator and construct completely differs from other constructs by checking the Fornell-Larcker value, where the AVE root must be greater than the correlation between constructs. The results of discriminant validity testing can be seen in Table 4.

Table 4. Results of *discriminant validity testing*

	Information Quality	User Satisfaction	Service Quality	Net Benefits	Use	System Quality
Information Quality	0.887					
User Satisfaction	0.568	0.825				
Service Quality	0.500	0.394	0.835			
Net Benefits	0.420	0.583	0.449	0.895		
Use	0.280	0.487	0.144	0.216	0.891	
System Quality	0.380	0.511	0.266	0.348	0.264	0.772

Table 3 shows that the value on the diagonal axis is the AVE root, where the AVE root value is greater than the correlation between constructs, so it can be said that all constructs tested in the model have *good* discriminant validity.

d) *Reliability*

The criterion used in this measurement is Cronbach's alpha, which indicates that the construct is reliable if its value is above 0.7. The results of the Cronbach alpha test are presented in Table 5.

Table 5. Cronbach's Alpha test results

	Cronbach's Alpha	Set Value	Information
Information Quality	0.927	> 0.7	*Reliable*
User Satisfaction	0.754		*Reliable*
Service Quality	0.858		*Reliable*
Net Benefits	0.875		*Reliable*
Use	0.744		*Reliable*
System Quality	0.770		*Reliable*

Table 5 shows that Cronbach's alpha values for all constructs are above 0.7. Then, all constructs will be reliable and can be used as research measuring tools.

Structural Model

This analysis involves various tests to evaluate the relationship between variables and assess the suitability of the model as a whole, including the path coefficient test, test coefficient of determination (R^2), t-test (t-statistic), test effect size (f^2), predictive relevance (Q^2), and relative impact (q^2). A structural model was obtained based on data processing using SmartPLS 4.0, as shown in Figure 3.

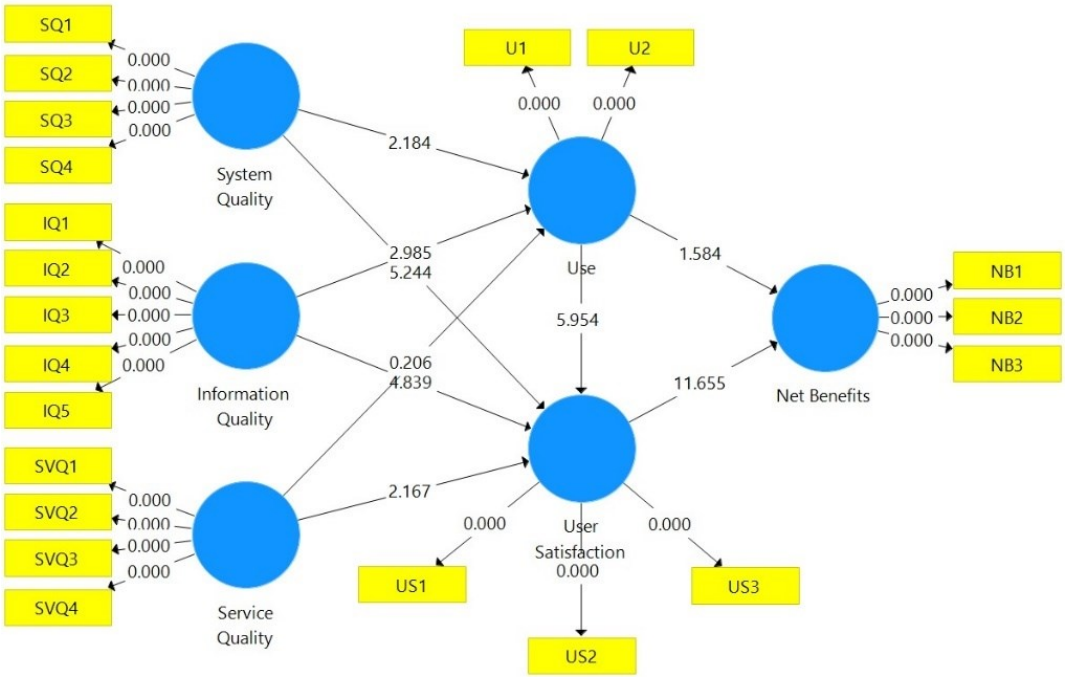

Figure 3. Path analysis of the DeLone and McLean model

The following are the results of the *inner model evaluation*.

a) *Path coefficient*

This test shows how much influence the independent variable has on the dependent variable. To say that the path in question influences the testing model, the *P value is* <0.05. The path results coefficient is presented in Table 6. Table 6 shows that two of the nine paths in this research model, namely service quality> use and use> net benefits, show an insignificant effect with a p-value <0.05.

Table 6. *Path Coefficient* test results

	P *Values*	Information
User Satisfaction > Net Benefits	0,000	Significant
Information Quality > User Satisfaction	0,000	Significant
Information Quality > Usage	0.005	Significant
Service Quality > User Satisfaction	0.033	Significant
Quality of Service > Usage	0.844	Not significant
System Quality > User Satisfaction	0,000	Significant
System Quality > Usage	0.037	Significant
Usage > User Satisfaction	0,000	Significant
Usage > Net Benefits	0.109	Not significant

b) *Coefficient of Determination (R^2)*

This testing was done to determine how significant the contribution of influence provided by the independent variables together on the dependent variable is, with a measurement standard of 0.67 as strong, 0.33 as moderate, and 0.19 or below as weak. The results of the coefficient of determination *(R^2)* can be seen in Table 7.

Table 7. Results of *Coefficient of Determination* (R^2)

	R *Square*	Information
User Satisfaction	0.518	Moderate
Net Benefits	0.346	Moderate
Use	0.107	Weak

Table 7 shows that the results of the R Square value on the user satisfaction variable are in the moderate category, indicating that system quality, information quality, service quality, and usage can explain the user satisfaction variable by 51.8%. The R square value of the net benefit variable is in the moderate category, which indicates that the usage and user satisfaction variables can explain the net benefit variable by 34.6%. Meanwhile, the R square value of the usage variable is in the weak category, which means that the system quality, information quality, and service quality variables can explain the usage variable by 10.7%.

c) *t-test (t-statistic)*

The t-test is carried out using the bootstrapping method, where the test uses a two-tailed test with a significance level of 5% to test the research hypotheses. The hypothesis is said to be accepted if the t-test value> 1.96. The results of the t-test can be seen in Table 8.

Table 8. *T-test* results

	T Statistics	Information
System Quality > Usage	2,184	Accepted
System Quality > User Satisfaction	5,244	Accepted
Information Quality > Usage	2,985	Accepted
Information Quality > User Satisfaction	4,839	Accepted
Quality of Service > Usage	0.206	Rejected
Service Quality > User Satisfaction	2,167	Accepted
Usage > User Satisfaction	5,954	Accepted
Usage > Net Benefits	1,584	Rejected
User Satisfaction > Net Benefits	11,655	Accepted

Table 8 shows seven accepted and 2 rejected hypotheses because they have a t-test value below 1.96. The rejected hypotheses are service quality to usage and usage to net benefits.

d) *Effect Size* (f^2)
This test predicts the effect of certain variables on other variables in the model structure. The effect size value has an acceptable limit level: 0.02 has a small effect, 0.15 has a medium impact, and 0.35 has a significant effect. The test results for the effect size are in Table 9.

Table 9. *Effect size* test results

Track	R^2 *In*	R^2 *Ex*	$\sum f^2$	Results
SQ > U	0.107	0.081	0.029	Small
SQ > US	0.518	0.456	0.129	Small
IQ > U	0.107	0.076	0.035	Small
IQ > US	0.518	0.451	0.139	Small
SVQ > U	0.107	0.107	0	Small
SVQ > US	0.518	0.511	0.015	Small
U > US	0.518	0.434	0.174	Intermediate
U > NB	0.346	0.340	0.009	Small
US > NB	0.346	0.060	0.437	Big

Table 9 shows that of the nine paths, one has a significant influence, namely the path of user satisfaction> net benefits, and one other has a medium influence, namely usage> user satisfaction. The rest have a small impact.

e) *Predictive Relevance* (Q^2)
This test is used to validate the predictive ability of the model using blindfolding. If the predictive relevance value is greater than zero, the structural model is said to have relevant predictions. The predictive relevance test results (Q^2) are presented in Table 10.

Table 10. *Predictive relevance* test results

	SSO	SSE	Q² (=1-SSE/SSO)
User Satisfaction	771,000	515,250	0.332
Information Quality	1,285,000	1,285,000	
Service Quality	1,028,000	1,028,000	
System Quality	1,028,000	1,028,000	
Net Benefits	771,000	570,356	0.260
Use	514,000	476,619	0.073

Table 10 shows that the predictive relevance value for each dependent variable is greater than 0, which means that the structural model makes relevant predictions.

f) *Relative Impact* (q^2)
Measure the relative influence of a predictive relationship between a particular variable and other variables using the blindfolding method, with a threshold value of 0.02 for small, 0.15 for medium, and 0.35 for significant influences. Table 11 shows the following test results of relative impact.

Table 11. *Relative Impact* test results

Track	Q^2 *in*	Q^2*ex*	$\sum q^2$	Results
SQ > U	0.073	0.055	0.019	Small
SQ > KP	0.332	0.291	0.061	Small
IQ > U	0.073	0.050	0.025	Small
IQ > US	0.332	0.289	0.064	Small
SVQ > U	0.073	0.075	0.002	Small
SVQ > US	0.332	0.327	0.007	Small
U > US	0.332	0.277	0.082	Small
U > NB	0.260	0.257	0.004	Small
US > NB	0.260	0.040	0.297	Intermediate

Based on Table 11, the results of testing the q2 value of the nine paths in this study show that one path has a medium effect, namely user satisfaction on net benefits, while the rest has a small impact.

Discussion

The results of this study support the concepts of system quality, information quality, service quality, system usage, and user satisfaction in terms of the net benefits of implementing the SID website in East Tabongo village. The results of this study also confirm the hypothesized relationship between these constructs, according to DeLone and McLean. From the results of hypothesis testing, seven hypotheses show that latent variables have a significant effect, namely the independent variable on the dependent variable. Two hypotheses show that latent variables do not have a significant impact.

System Quality and Information Quality

System quality and information quality have a significant influence on CIS usage and CIS user satisfaction. This means that the higher the quality of the system and information provided by the CIS, the more users use it, and the more satisfied they are with the CIS. This finding is consistent with previous research that shows system quality (Meilani et al., 2020; Wara et al., 2021; Putra et al., (2022) and information quality (Thanos, 2021; Ernawati et al., 2020; and Rahmi et al., 2023) are essential factors in increasing information system user adoption and satisfaction.

Service Quality

Service quality does not have a significant influence on the use of SID. This aligns with Ernawati et al. (2020), Putra et al. (2022), and Setiadi et al. (2023). Based on the analysis, this can be caused by several factors, such as lack of public understanding, limited internet access, and the habit of people coming directly to the village office. However, service quality has a significant influence on SID user satisfaction. This means that users who are satisfied with the quality of SID services, such as fast response and accurate information, will feel more satisfied with SID in general. This is in line with Andriyanto et al. (2021), Thanos (2021), and Mkinga and Mandari (2020), who found that service quality has a significant influence on user satisfaction.

SID User Usage and Satisfaction

The use of SID only significantly affects the net benefits of SID. This shows that although many people use SID, the benefits received are different from the costs incurred in implementing and maintaining SID. This result is in line with several previous studies (Wara et al., 2021), Erwin and Wijaya (2019), and Andriyanto et al. (2021). On the other hand, user satisfaction significantly affects the net benefits of SID. This means that satisfied SID users will get more benefits from SID, such as easy access to information and increased village transparency. Permana and Mudiyanti (2021), Andriyanto et al. (2021), and Thanos (2021) also state that user satisfaction has a significant effect on net benefits.

Conclusion

This study aims to determine the performance of the SID application based on user perceptions in the East Tabongo village area using the DeLon & McLean model. This study shows that system, information, and service quality are essential to increase SID user satisfaction. Conversely, SID user satisfaction can increase SID's net benefits. However, this study also shows that the use of SID does not directly increase the net benefits of SID. Therefore, efforts are needed to increase community participation in using SID so that the net benefits of SID can be achieved optimally. The recommendation is for village officials to inform the community about the benefits of using SID to increase community awareness and understanding. In addition, training, including how to operate the SID website, is needed to make the community more confident and proficient in using the SID and

improve information technology infrastructure to ensure the community can access and use the SID optimally.

REFERENCE

Alibas, F., & Saz, J. (2021). Pelatihan sistem informasi desa di Desa Bonne-Bonne. *Jurnal Abmas Negeri (JAGRI)*, *2*, 46–52. https://doi.org/10.36590/jagri.v2i1.321

Andriyanto, D., Said, F., Titiani, F., & Erni, E. (2021). Analisis kesuksesan aplikasi Jakarta Kini (JAKI) menggunakan model DeLone and McLean. *Paradigma - Jurnal Komputer dan Informatika*, *23*(1), 43–48. https://doi.org/10.31294/p.v23i1.10018

Atmojo, S., Utami, R., Dewi, S., & Widhiyanta, N. (2022). Implementasi sistem-informasi desa berbasis arsitektur microservices. *SMATIKA JURNAL*, *12*, 55–66. https://doi.org/10.32664/smatika.v12i01.658

Budiman, V. (2021). *Panduan fasilitasi replikasi dan pelembagaan. pengembangan sistem informasi desa (SID)*. www.kompak.or.id

Chua, Y. P. (2024). *A step-by-step guide to SMARTPLS 4: Data analysis using PLS-SEM, CB-SEM, Process, and Regression*.

Delone, W., & McLean, E. (2002). The DeLone and McLean model of information systems success. *J. Manag. Inf. Syst.*, *19*.

Delone, W., & McLean, E. (2003). The DeLone and McLean model of information systems success: A ten-year update. *J. of Management Information Systems*, *19*, 9–30. https://doi.org/10.1080/07421222.2003.11045748

DeLone, W., & Mclean, E. R. (2020). Measuring e-commerce success: Applying the DeLone & McLean information systems success model. *International Journal of Electronic Commerce*.

Dewi, S., Perdana, A., Harliana, P., & Surbakti, N. (2023). Perancangan sistem informasi desa bintang sidikalang (sidesta) berbasis web. *J-INTECH*, *11*, 336–346. https://doi.org/10.32664/j-intech.v11i2.1021

Elazzaoui, E. (2023). *Delone and McLean information systems success model in the public sector: A systematic review*. https://doi.org/10.48434/IMIST.PRSM/jossom-v3i1.30393

Erida, Saadah, M., Syeftiani, T., Suri, A., & Fachrezi, Z. (2023). Pelatihan dan pendampingan pembuatan sistem informasi desa dalam rangka peningkatan good governance desa. *I-Com: Indonesian Community Journal*, *3*, 2144–2152. https://doi.org/10.33379/icom.v3i4.3588

Ernawati, M., Hermaliani, E. H., & Sulistyowati, D. N. (2020). Penerapan DeLone and McLean model untuk mengukur kesuksesan aplikasi akademik mahasiswa berbasis mobile. *Jurnal IKRA-ITH Informatika*, *5*(1), 58–67.

Erwin, E., & Wijaya, A. (2019). Penggunaan model DeLone dan McLean dalam mengukur kesuksesan aplikasi GO-JEK di Palembang. *JuSiTik : Jurnal Sistem Dan Teknologi Informasi Komunikasi*, *3*(1), 9–17. https://doi.org/10.32524/jusitik.v3i1.624

Lailiyah, K. (2022). Digitalisasi desa sebagai upaya percepatan pelayanan publik dalam mewujudkan good governance. *RISTEK : Jurnal Riset, Inovasi dan Teknologi Kabupaten Batang*, *6*(2), 26–34. https://doi.org/10.55686/ristek.v6i2.112

Mardinata, E., Cahyono, T., & Rizqi, R. (2023). Transformasi digital desa melalui sistem informasi desa (SID): Meningkatkan kualitas pelayanan publik dan kesejahteraan masyarakat. *Parta: Jurnal Pengabdian Kepada Masyarakat*, *4*, 73–81. https://doi.org/10.38043/parta.v4i1.4402

Mariano, A., & Plá, A. (2023). *The use of PLS-SEM in engineering: A tool to apply the design science* (pp. 31–44). https://doi.org/10.1007/978-3-031-34589-0_5

Meilani, L., Suroso, A. I., & Yuliati, L. N. (2020). Evaluasi keberhasilan sistem informasi akademik dengan pendekatan model DeLone dan McLean. *Jurnal Sistem Informasi Bisnis*, *10*(2), 137–144. https://doi.org/10.21456/vol10iss2pp137-144

Mkinga, M., & Mandari, H. (2020). Evaluating students information system success using DeLone and McLean's model: Student's perspective. *Journal of International Technology and Information Management*, *29*(2), 24–42. https://doi.org/10.58729/1941-6679.1447

Nur, S., Waita, R., & Asa, B. (2023). Rancang bangun sistem informasi desa Fudima dengan menggunakan metode prototype di Desa Fudima. *EDUSAINTEK: Jurnal Pendidikan, Sains Dan Teknologi*, *10*, 804–815. https://doi.org/10.47668/edusaintek.v10i3.862

Permana, G. P. L., & Mudiyanti, N. W. (2021). Analisis faktor kesuksesan implementasi aplikasi sistem keuangan desa (SISKEUDES) dengan menggunakan model kesuksesan sistem teknologi informasi diperbarui oleh DeLone dan McLean di Kabupaten Gianyar. *KRISNA: Kumpulan Riset Akuntansi*, *13*(1), 75–85. https://doi.org/10.22225/kr.13.1.2021.75-85

Pujiantoro, J., Saputra, A., Leksono, A., & Setiawan, S. (2023). Perancangan sistem informasi desa (SIDESAKA) berbasis web pada desa Karangsalam kecamatan Kemranjen kabupaten Banyumas. *Abditeknika Jurnal Pengabdian Masyarakat*, *3*, 23–31. https://doi.org/10.31294/abditeknika.v3i1.1756

Putra, R. P., Wibowo, A., Farlina, Y., & Susilawati, D. (2022). Penerapan model DeLone and McLean website sistem informasi akademik STIKES Sukabumi. *Swabumi*, *10*(1), 44–54. https://doi.org/10.31294/swabumi.v10i1.12255

Rahmi, S., Novianti, N., Harahap, E. F., & Rifa, Y. D. (2023). Analysis of success factors in the implementation of the directorate general of taxes information system development (SIDJP) using the DeLone and McLean model. *KnE Social Sciences*, 77–91. https://doi.org/10.18502/kss.v8i13.13745

Sabol, M., Hair, J., Cepeda-Carrion, G., Roldán, J., & Chong, A. (2023). PLS-SEM in Information Systems: Seizing the Opportunity and Marching Ahead Full Speed to Adopt Methodological Updates. *Industrial Management & Data Systems*. https://doi.org/10.1108/IMDS-07-2023-0429

Setiadi, B., K, K., Risdwiyanto, A., Ady Bakri, A., & Arief, I. (2023). The application of DeLone and McLean framework to analyze the relationship between customer satisfaction and user experience of mobile application. *Jurnal Sistem Informasi dan Teknologi*, 84–89. https://doi.org/10.37034/jsisfotek.v5i1.207

Silfiana, S., & Putra, A. (2022). Analisis implementasi sistem informasi desa terintegrasi di Kabupaten Serang. *Jurnal Kebijakan Pembangunan Daerah*, *6*, 64–75. https://doi.org/10.56945/jkpd.v6i1.172

Sodiq, E., & Furqon, E. (2024). Sistem Informasi Desa Adat Baduy Dalam Upaya Optimalisasi Tata Kelola Pemerintahan Desa Yang Baik. *Gorontalo Law Review*, *7*, 31. https://doi.org/10.32662/golrev.v7i1.3165

Supiyandi, S., Rizal, C., Zen, M., & Eka, M. (2022). Pelatihan perangkat desa dalam penerapan metode waterfall pada sistem informasi desa. *JMM (Jurnal Masyarakat Mandiri)*, *6*, 2346. https://doi.org/10.31764/jmm.v6i3.8533

Sutoyo, M. (2023). Perancangan E-Kiosk sistem informasi desa pada Desa Baru Jambi. *Jurnal Komtika (Komputasi Dan Informatika)*, *7*, 54–61. https://doi.org/10.31603/komtika.v7i1.8007

Thanos, J. G. E. (2021). Analisis manfaat penerapan sistem informasi desa di Kabupaten Bantul. *ABIS: Accounting and Business Information Systems Journal*, *9*(4), 1–15. https://doi.org/10.22146/abis.v9i4.70393

Tresnawan, I. G. P. Y., Pradnyana, M. A., & Wirawan, I. M. A. (2020). Analisa penerimaan dan penggunaan sistem informasi desa (SID) dengan model unified theory of acceptance and use of technology (UTAUT). *INSERT Information System and Emerging Technology Journal*, *1*(1), 51–61.

Wara, L. S., Kalangi, L., & Gamaliel, H. (2021). Pengujian model kesuksesan sistem informasi DeLone dan McLean pada sistem aplikasi pemeriksaan (SIAP) di Badan Pemeriksaan Keuangan Republik Indonesia Perwakilan Provinsi Sulawesi Utara. *Jurnal Riset Akuntansi dan Auditing (GOODWILL)*, *12*(1), 1–15. https://doi.org/https://doi.org/10.35800/jjs.v12i1.31885