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# Effect of information systems and facilities on Siskeudes benefits through user satisfaction

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**Abstract:** This study evaluated the combined application of the DeLone and McLean Information Systems Success Model and the Unified Theory of Acceptance and Use of Technology (UTAUT) in the context of the Village Financial System (SISKEUDes) in Berau Regency. The research found that information system quality significantly influenced user satisfaction and intentions to use the system but did not significantly impact net benefit. Facilitating conditions positively affected user satisfaction but did not significantly influence intentions to use or net benefit. Habit was found to significantly impact net benefit, though it did not affect user satisfaction or intentions to use. Furthermore, user intentions were identified as a significant mediator in the relationship between system quality, facilitating conditions, habit, and net benefit. These findings highlight the crucial role of user intentions in determining the net benefits of SISKEUDes and suggest areas for improvement in system management and implementation.

Keywords: Information systems, Net benefit, User satisfaction, UTAUT, Village financial system.

#### 1. Introduction

Information Systems play a crucial role in the management of various types of organizations, including at the village level. The DeLone and McLean Model [1]-[3] provides a comprehensive framework for evaluating the success of information systems, encompassing six main dimensions: System Quality, Information Quality, Service Quality, Use, User Satisfaction, and Net Benefit. This model has been used in various contexts to measure the effectiveness and satisfaction of information systems. For instance, research by [4] demonstrates that Information Quality and Service significantly influence User Satisfaction and Net Benefit. The UTAUT model introduced by [5] adds additional dimensions such as Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions, which help in understanding technology acceptance. Research by [6] indicates that this model is effective in explaining user behavioral intentions towards new technologies such as virtual reality tourism in the context of the COVID-19 pandemic. However, most existing studies predominantly focus on corporate or urban contexts. For example,  $\lceil 7 \rceil$  found that in the context of the Peduli Lindungi application, system, information, and service quality influence User Satisfaction, which in turn affects the intention for continued use. Another study by [8] assessed Information Systems in sports organizations and found that system, information, and service quality significantly impact usage intentions and Net Benefit.

On the other hand, the study by [9] highlights the application of the DeLone and McLean Model in the context of the Village Financial System (SisKeudes) in Aceh, showing that system and information quality affect User Satisfaction and organizational effectiveness at the village level. [10] found that the quality of the Project Management Information System (PMIS) influences financial well-being in rural communities, indicating the importance of Information Systems in financial management at the village level. Research by [11] also shows that while system and information quality affect usage, they are not always significant to User Satisfaction, providing new perspectives on the relationship between these factors in learning management systems. Conversely, the study by [12] emphasizes that information quality and trust significantly impact User Satisfaction in online learning management systems. Furthermore, [13] emphasizes that factors such as Habit and User Satisfaction play important roles in the intention to use the system, suggesting that additional variables in these models need to be considered. However, despite the existence of studies applying the DeLone and McLean Model as well as UTAUT in various contexts, such as in the study by [14] assessing cultural factors in e-learning adoption in Saudi Arabia, there has been limited exploration of the application of these models in village contexts with unique characteristics.

There is a gap in understanding the combined application of the DeLone and McLean Model and UTAUT in the context of village Information Systems like SisKeudes. Few studies have explored how additional variables from UTAUT, such as Habit and Facilitating Conditions, influence User Satisfaction and Intentions to Use in village environments that have unique characteristics. Although the DeLone and McLean Model and UTAUT have been widely applied to evaluate the success of Information Systems in various contexts, there are still some shortcomings and knowledge gaps that remain unaddressed, particularly in the context of village Information Systems like SisKeudes.

Most previous studies have used the DeLone and McLean Model or UTAUT separately in corporate or urban contexts [7], [9]. Research that combines these two models in the context of village Information Systems is very limited. For instance, this combined model has not been widely used to assess Information Systems at the village level, such as SisKeudes, which has unique characteristics and challenges that differ from corporate or urban environments. The UTAUT model includes variables such as Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions; however, research exploring how additional variables from UTAUT, such as Habit and Facilitating Conditions, influence User Satisfaction and usage intentions in village environments remains very limited. The study by [13] highlighted the importance of Habit in the intention to use technology, but how Habit plays a role in the context of village Information Systems has not been extensively studied. Similarly, the impact of Facilitating Conditions available at the village level on satisfaction and usage intentions of Information Systems like SisKeudes has not been widely explored.

Village environments often have unique characteristics that can influence the use and effectiveness of information systems, such as limited infrastructure, levels of digital literacy, and different social habits compared to urban contexts. The study by [12] indicates that information quality and trust play important roles in online learning management systems, but how these factors interact in rural contexts remains unclear. Although the DeLone and McLean Model and UTAUT provide solid frameworks for evaluating the success of information systems, the lack of understanding regarding how the Net Benefits of Information Systems like SisKeudes at the village level are measured and evaluated remains a significant gap. Studies such as those by [8], [10] highlight the importance of Information System quality in rural contexts; however, how Net Benefits are measured and influenced by these variables is still not fully explained.

Therefore, this study aims to fill the existing knowledge gap by integrating variables from the DeLone and McLean Model and UTAUT to evaluate their impact on User Satisfaction and the intention to use SisKeudes at the village level. Thus, this study seeks to address this gap by exploring the combined application of the DeLone and McLean Model and UTAUT in the context of village Information Systems and assessing how variables such as Habit and Facilitating Conditions affect User Satisfaction and usage intentions in rural settings. This research is expected to provide new insights into how Information Systems can be applied and optimized in rural environments, which have been relatively underexplored in the literature.

The model will then be tested in Berau Regency for several important reasons. Berau Regency faces significant challenges in the implementation and efficiency of the Village Financial System (SisKeudes), despite the system being designed to improve transparency and accountability in village fund management. There are still issues with its uniform adoption across all villages, particularly in the Kelay District, as well as limitations in human resources that hinder the optimal utilization of this system. Furthermore, deficiencies in monitoring and data consolidation of fund management, along with the urgent need for Facilitating Conditions and additional training for village officials, highlight the

With the increasing allocation of village funds from the central government, it is essential to ensure an effective and transparent system. This study will provide valuable insights into the impact of these variables on User Satisfaction and usage intentions, and offer recommendations for enhancing village fund management. In turn, this can support improvements in the management of village funds and contribute to better development outcomes in Berau Regency.

This research is also relevant to the Sustainable Development Goals (SDGs), including: SDG 1 (No Poverty), by improving village financial management to reduce poverty; SDG 2 (Zero Hunger), by supporting food security programs through efficient Information Systems; SDG 8 (Decent Work and Economic Growth), by contributing to local economic growth and job creation; SDG 9 (Industry, Innovation, and Infrastructure), by supporting the development of better and more innovative infrastructure; SDG 10 (Reduced Inequalities), by ensuring fair distribution of resources and information; SDG 11 (Sustainable Cities and Communities), by providing a model for better settlement development; and SDG 16 (Peace, Justice, and Strong Institutions), by enhancing accountability and transparency in village management. This study is expected to provide new insights into how Information Systems can be applied and optimized in rural environments, supporting the achievement of these sustainable development goals.

Therefore, in this research, the Research Questions (RQ) are as follows:

How do the dimensions of the DeLone and McLean Model (System Quality, Information Quality, Service Quality) influence User Satisfaction and the Net Benefit of SisKeudes?

How do additional variables from the UTAUT Model, such as Habit and Facilitating Conditions, which have been under-researched, affect User Satisfaction and Intentions to Use SisKeudes at the village level?

How is the Net Benefit of the SisKeudes Information System measured and influenced by the variables of the DeLone and McLean and UTAUT Models in the village context?

#### 2. Literature Review and Hypotheses

#### 2.1. Information System on User Satisfaction, Intentions to Use, and Net Benefit of SISKEUDes.

The DeLone and McLean Information System Success Model [1]-[3] explains that system, information, and service quality directly influence User Satisfaction. Research by [4] as well as [7] [15] [16] confirms that information and service quality are crucial in determining the level of User Satisfaction with an information system. Other studies, such as those conducted by [9] and [8], also show that Information System quality significantly contributes to User Satisfaction in various contexts, including at the village level. Based on this framework, the first hypothesis assumes that improvements in system, information, and service quality will enhance User Satisfaction, in line with previous literature findings.

Additionally, the UTAUT model developed by [5] also emphasizes that the quality of the Information System influences users' intentions to continue using the technology. Research by [7] and [8] supports this finding by demonstrating that Information System quality affects the intention of continued use across various technologies. [10] further adds that Information System quality also impacts net benefits, which in turn influences the intention to use. In the context of SISKEUDes, the second hypothesis assumes that improving Information System quality will increase users' intentions to continue using the system, consistent with previous studies that emphasize the important role of system quality in determining technology usage intentions.

Finally, the DeLone and McLean Information System Success Model also links system, information, and service quality to the Net Benefits derived from the Information System [1]-[3]. Research by [4], [10], and [17] shows that information and service quality significantly influence the Net Benefits perceived by users. At the village level, a study by [9] shows that the quality of the information system, as applied to SisKeudes, can affect the effectiveness and Net Benefits of the system for village financial management. This research supports the assumption that high Information System quality will enhance

perceived net benefits, including efficiency and effectiveness in resource management. Therefore, the hypotheses developed are:

 $H_1$ : Information System has a significant effect on User Satisfaction.  $H_2$ : Information System has a significant effect on Intentions to Use SISKEUDes.  $H_3$ : Information System has a significant effect on Net Benefits.

2.2. The influence of Facilitating Conditions on User Satisfaction, Intentions to Use, and Net Benefits of SISKEUDes.

In the UTAUT Model, Facilitating Conditions such as training, technical support, and infrastructure have a significant influence on User Satisfaction [7], intention to use, and the Net Benefits of an Information System [5]. Research by [11] shows that adequate Facilitating Conditions can enhance User Satisfaction by ensuring the system operates smoothly and effectively. Similar findings are supported by [7], who also confirms that Facilitating Conditions play an important role in increasing User Satisfaction. [18]–[24] add that good Facilitating Conditions can influence a person's intention to continue using technology, which contrasts with [25] [26], who found that Facilitating Conditions did not show a significant influence on the behavioral intention of business intelligence tools. Moreover, [9] shows that good Facilitating Conditions contribute to the increased Net Benefits of information systems, including efficiency and effectiveness. Research by [9] in the context of SISKEUDes emphasizes that Facilitating Conditions such as training and infrastructure can affect the system's Net Benefits at the village level. Based on this evidence, the following hypotheses can be developed:

H<sup>\*</sup>: Facilitating Conditions have a significant effect on SISKEUDes User Satisfaction. H<sup>5</sup>: Facilitating Conditions have a significant effect on Intentions to Use SISKEUDes. H<sup>6</sup>: Facilitating Conditions have a significant effect on SISKEUDes Net Benefits.

#### 2.3. The influence of Habit on User Satisfaction, Intentions to Use, and Net Benefits of SISKEUDes.

The UTAUT theory states that Habit, as one of the important factors in technology adoption, can influence User Satisfaction [5]. Research by [13] indicates that Habit in using technology contributes to User Satisfaction. In the context of SISKEUDes, users' Habit in interacting with the system, such as the frequency and manner in which they engage with it, can affect their level of satisfaction. Positive and familiar Habits with the system are expected to increase User Satisfaction, as users become more comfortable and proficient in using SISKEUDes.

Furthermore, this hypothesis refers to the influence of Habit on system usage levels. According to UTAUT, the Habit of using technology can affect the frequency and intensity of use [5] [19], as well as Intentions to Use [23] [27]. Research by [24] and [28] indicates that Habit plays a crucial role in determining how often and consistently users utilize technology. In the context of SISKEUDes, users' Habit of routinely accessing and using the system can increase both the frequency and intensity of use, thereby improving overall system adoption.

Additionally, Habit also focuses on how it impacts the Net Benefits of using information systems. Based on studies by [10] and [13], a strong Habit of using technology can influence users' perceived Net Benefits. In the context of SISKEUDes, good usage Habits can enhance the system's efficiency and effectiveness, and increase perceived benefits such as better and more transparent village financial management, thus resulting in higher Net Benefits for both users and the organization. Based on this evidence, the following hypotheses can be developed:

 $H_7$ :Habit has a significant effect on User Satisfaction with SISKEUDes.  $H_8$ :Habit has a significant effect on Intentions to Use SISKEUDes.  $H_9$ : Habit has a significant effect on Net Benefits.

2.4. The Mediating Role of User Satisfaction with SISKEUDes on the Relationship Between Information Systems, Facilitating Conditions, and Habit with Net Benefit in Using SISKEUDes

Based on the DeLone and McLean Information System Success Model [1]-[3], which emphasizes that User Satisfaction is a key indicator of information system success, User Satisfaction is often directly

related to the Net Benefit perceived from system usage [16] [15] [17] [29]. In the context of SISKEUDes, User Satisfaction can reflect the extent to which the system meets user needs and expectations, as well as reduces daily operational constraints, which in turn increases Net Benefit such as efficiency and transparency [4] [8]. The Unified Theory of Acceptance and Use of Technology (UTAUT) model also suggests that User Satisfaction can mediate the relationship between factors such as system quality, Facilitating Conditions, and Habit on the benefits derived from the system [5]. Positive user Habit and adequate Facilitating Conditions, such as technology accessibility and technical support, contribute to increasing User Satisfaction, which subsequently enhances the Net Benefit of SISKEUDes, such as improving efficiency and transparency in village financial management [11] [30] [13]. Therefore, the following hypothesis is proposed:

 $H_{10}$ : User Satisfaction mediates the effect of information systems, Facilitating Conditions, and Habit on the Net Benefit of using SISKEUDes.

### 2.5. The Mediating Role of Intentions to Use SISKEUDes on the Relationship Between Information Systems, Facilitating Conditions, and Habit with Net Benefit in Using SISKEUDes.

The Unified Theory of Acceptance and Use of Technology (UTAUT) developed by [5] emphasizes that users' intentions to use a system are a key mediator in the relationship between factors such as system quality, Facilitating Conditions, and Habit with the Net Benefit obtained from the system. According to this theory, a strong intention to continue using the system often reflects more consistent and effective usage. With a high intention to use SISKEUDes, users tend to utilize the system more optimally, which can enhance Net Benefits such as increased efficiency and transparency in village financial management [5].

Additionally, the Information System Success Model by DeLone and McLean [1]-[3] also supports the notion that the intention to continue using a system plays a crucial role in mediating the relationship between User Satisfaction and Net Benefit. This model suggests that users' intentions can amplify the positive impact of an Information System on Net Benefit. In the context of SISKEUDes, a strong intention to use the system can enhance the efficiency and transparency generated by the system [1]-[3]; [31].

Users' habits that support effective use of SISKEUDes can enhance the intention to continue using the system. Positive habits in utilizing the system contribute to users' intentions to keep using SISKEUDes, which in turn increases the Net Benefit obtained [13]. Additionally, good Facilitating Conditions, including technology accessibility and technical support, can enhance users' intentions to fully utilize SISKEUDes. Adequate Facilitating Conditions encourage users' intentions to use the system intensively and optimally, which positively impacts the Net Benefit [18]. Therefore, the hypothesis developed is that:

 $H_{11}$ : Intentions to Use SISKEUDes mediate the effect of information systems, Facilitating Conditions, and Habit on the Net Benefit of using SISKEUDes.



Framework research.

#### 3. Research Method

The objective of this study is to analyze how the dimensions of the DeLone and McLean Model affect User Satisfaction and the Net Benefit of the SISKEUDes Information System at the village level, as well as to assess the impact of additional variables from the UTAUT Model, such as Habit and Facilitating Conditions, on User Satisfaction and the intention to use SISKEUDes, and how the Net Benefit is measured and influenced by these variables in the village context. The population in this study consists of all staff apparatus in the villages of Berau Regency, East Kalimantan. The sample was determined using a purposive sampling technique, taking into account the criteria of active users of the village financial system application (SISKEUDes) in Berau Regency. The sample size was calculated based on the analysis method to be used, namely the Structural Equation Model (SEM). According to Ferdinand (2014), the minimum sample size in the SEM method is 5 to 10 times the number of indicators. With 32 indicators in this study Table 1, the required sample size is between 165 and 330 samples.

The data collection technique was conducted through questionnaires distributed via Google Forms, with responses on the instrument using a Likert scale that ranges from very positive to very negative. A score of (1) represents the most negative response, while a score of (5) represents the most positive response. The collected data were then analyzed using SEM analysis with the help of the AMOS 24 application.

Table 1.Measurement.

Measurement	Items						
Information system (X1)	The information provided by SISKEUDes is useful.						
(DeLone & McLean, 2003)	The information provided by SISKEUDes is understandable.						
	The information provided by SISKEUDes is engaging.						
	My knowledge of SISKEUDes has increased.						
	The information provided by SISKEUDes is trustworthy.						
	The information provided by SISKEUDes is comprehensive.						
	The information provided by SISKEUDes is always up-to-date.						
	The SISKEUDes system operates stably.						
	The SISKEUDes system responds quickly.						
	The SISKEUDes system functions perfectly.						
	The SISKEUDes system interface design is good.						
	The service staff in charge is always very willing to assist whenever						
	I need SISKEUDes support.						
	The service staff in charge provides personal attention when I						
	encounter issues with SISKEUDes.						
	The service staff in charge provides SISKEUDes-related services at						
	the promised time.						
Facilitating conditions	I have the necessary resources to use the SISKEUDes application.						
(X2) (Venkatesh et al.,	I possess the knowledge required to use the SISKEUDes application.						
2003)	The SISKEUDes application is compatible with other technologies I						
	use						
	I can seek assistance from others when I encounter difficulties using						
	the SISKEUDes application.						
Habit (X3) (Venkatesh et	Using the SISKEUDes application has become a habit for me.						
al., 2003)	am addicted to using the SISKEUDes application.						
	I feel compelled to use the SISKEUDes application.						
	Using the SISKEUDes application has become a normal part of my						
	routine.						
User satisfaction $(Z1)$	I am satisfied that SISKEUDes meets my information processing or						
(Delone & McLean, 2003)	knowledge needs.						
	I am satisfied with the effective and of SISKEUDes.						
	1 am satisfied with the effectiveness of SISKEUDes.						
Intentiona to Use (70)	Lintend to use the SISKEUDes avetem						
$\frac{1}{(Vonkatosh ot al - 2002)}$	I milend to use the SISKEODes system.						
(venkatesn et al., 2003)	I will inamain the habit of learning within the SISKEUDes system.						
	I will appape the frequency of my access to the SISKEUDes system.						
	system						
Net Benefit (V1) (DeLone	I feel that managing village finances has become more efficient using						
& McLean 2003)	SISKFUDes						
2000)	I feel that managing village finances has become more effective						
	using SISKEUDes.						
	I feel that I am managing village finances much better using						
	SISKEUDes.						

### 4. Findings

Table 2 illustrates the respondent data based on gender. Among the 200 individuals studied, the majority of respondents, totaling 163 individuals (81.5%), are male. In terms of age, out of the 200

Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 8, No. 6: 3857-3871, 2024 DOI: 10.55214/25768484.v8i6.2839 © 2024 by the authors; licensee Learning Gate participants, most respondents, totaling 103 individuals (51.5%), fall within the age range of 36 to 45 years. Regarding the educational background of the respondents, the largest group consists of bachelor's degree holders, amounting to 96 individuals (48%), followed by those with a high school equivalent, totaling 84 individuals (42%).

Descriptive statistics of respondents.					
Description	Number	Percentage			
Gender :					
Male	163	81.5			
Female	37	18.5			
	200	100			
Age :					
26-35	6	3			
36-45	103	51.5			
45-55	79	39.5			
56-65	12	6			
	200	100			
Education :					
Junior high school (SMP)	5	2.5			
Senior high school (SMA)	84	42			
Diploma	13	6.5			
Bachelor's degree (Strata 1)	96	48			
Master's degree (Strata 2)	2	1			
2 ( )	200	100			

Table 2.	
Descriptive statistics of respondents	3.
	_

Tabel 3.	
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Descriptive statistics of variables

Variables	Theoretical range	Actual range	Average	Standard deviation
Information system	14-70	22-70	58.4050	6.81935
Facilitating conditions	4-20	4-20	17.2950	2.35493
Habit	4-20	4-16	14.9950	1.67901
User satisfaction	4-20	4-20	16.9500	2.51178
Intention to use	4-20	4-20	16.3550	2.48796
Net benefit	3-15	3-12	10.3650	1.54717

4.1. Descriptive Statistics of Respondents and Variables

The Information System variable measures the evaluation of the information system with a theoretical range of 14 to 70 and an actual range of 22 to 70, indicating that the majority of respondents gave high evaluations. The mean of 58.4050 and the standard deviation of 6.81935 show significant variation in assessments, reflecting differences in individual experiences and perceptions. The Facilitating Conditions variable, with both theoretical and actual ranges of 4 to 20, demonstrates consistent and positive evaluations, with a mean of 17.2950 and a standard deviation of 2.35493, indicating little variation in perceptions of support effectiveness. The Habit variable shows relatively high usage habits with a mean of 14.9950 and a standard deviation of 1.67901, but it does not reach the upper limit of the theoretical range, signifying consistency in habits among respondents. User Satisfaction reflects a high level of satisfaction with a mean of 16.9500 and significant variation (standard deviation of 2.51178), indicating differences in individual satisfaction levels. Lastly, the Net

Benefit variable measures the perceived net benefit with a theoretical range of 3 to 15 and an actual range of 3 to 12, with a mean of 10.3650 and a standard deviation of 1.54717, showing relatively high benefits but with moderate variation across individuals Table 3.

#### 4.2. Hypothesis Testing

The first step in this research is conducting the CFA test. Table 4 illustrates Confirmatory Factor Analysis (CFA) is a method used to evaluate the measurement model, testing the validity and reliability of latent constructs in research. In the CFA test, there is an assumption that not all indicators or factors of latent constructs can fully explain the variation of the measured latent variables. Subsequently, to evaluate the measurement model, the verification of convergent and discriminant validity is carried out. For this, the factor loading matrix produced from the CFA, as well as the CR (Composite Reliability), are used.

Construct	Items	Loading factor	Construct reliability	Description
Information system (X1)	X1.1	0.520		
• · · · ·	X1.2	0.594	0.884	Reliabel
	X1.3	0.504	-	
	X1.4	0.683		
	X1.5	0.599		
	X1.6	0.707		
	X1.7	0.572		
	X1.8	0.604		
	X1.9	0.600		
	X1.10	0.644		
	X1.11	0.706		
	X1.12	0.625		
	X1.13	0.691		
	X1.14	0.584		
Facilitating conditions	X2.1	0.643		
(X2)	X2.2	0.742	0.843	Reliabel
	X2.3	0.843		
	X2.4	0.806		
Habit (X3)	X3.1	0.625		
	X3.2	0.805	0.800	Reliabel
	X3.3	0.631		
	X3.4	0.800		
User satisfaction (Z1)	Z1.1	0.801	0.874	Reliabel
	Z1.2	0.848		
	Z1.3	0.776		
	Z1.4	0.772		
Intentions to use $(Z2)$	Z2.1	0.792		
	Z2.2	0.791	0.835	Reliabel
	Z2.3	0.685		
	Z2.4	0.738		
Net benefit (Y1)	Y1.1	0.772	0.805	Reliabel
	Y1.2	0.780		
	Y1.3	0.731		

**Table 4.**Confirmatory factor analysis.

Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 8, No. 6: 3857-3871, 2024 DOI: 10.55214/25768484.v8i6.2839 © 2024 by the authors; licensee Learning Gate Based on the SEM analysis results in the Validity Test, it was found that all indicators met the validity requirements (Loading factor > 0.5). Meanwhile, all constructs passed the reliability test with a cut-off value greater than 0.6. Furthermore, in the model fit test, the results were CMIN/DF of 1.599, Sig. Probability of 0.075, RMSEA of 0.055, GFI of 0.933, RMR of 0.029, TLI of 0.956, and CFI of 0.968. The model fit results indicate that the overall model is considered Fit.



Figure 2. SEM analysis.

- Description.
- Information System (X1).
- Facilitating Conditions (X2).
- Habit (X3).
- User Satisfaction (Z1).
- Intentions to Use (Z2).
- Net Benefit (Y1).

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			Estimate	S.E.	C.R.	Р	Description
User	<	Information	0.935	0.192	4.859	***	Hypothesis accepted
satisfaction		system					
Intentions	<	Information	1.556	0.324	4.798	***	Hypothesis accepted
to use		system					
Net benefit	<	Information	-2.08	0.874	-2.38	0.017	Hypothesis rejected
		system					••••
User	<	Facilitating	0.261	0.118	2.211	0.027	Hypothesis accepted
satisfaction		conditions					
Intentions	<	Facilitating	-0.297	0.183	-1.621	0.105	Hypothesis rejected
to use		conditions					
Net benefit	<	Facilitating	0.264	0.298	0.886	0.376	Hypothesis rejected
		conditions					
User	<	Habit	-0.186	0.082	-2.262	0.024	Hypothesis rejected
satisfaction							
Intentions	<	Habit	-0.643	0.135	-4.75	***	Hypothesis rejected
to use							
Net benefit	<	Habit	0.838	0.333	2.517	0.012	Hypothesis accepted
Net benefit	<	User satisfaction	0.626	0.333	1.877	0.061	Hypothesis rejected
Net benefit	<	Intentions to use	0.945	0.325	2.912	0.004	Hypothesis accepted

**Table 5.** Hypothesis testing

4.2.1. Test and analysis of the influence of the Information System on User Satisfaction, Intentions to Use, and Net Benefit of SISKEUDes.

Table 5 illustrates statistical analysis shows that the relationship between the Information System and User Satisfaction is highly significant, with a C.R. value of 4.859, far exceeding the threshold of 1.96, and a very small p-value (p < 0.001). This supports the rejection of the null hypothesis, which states that there is no relationship between the two variables. The Information System Success Model developed by DeLone and McLean [1]-[3] provides a strong theoretical basis for this analysis, emphasizing that system, information, and service quality directly impact User Satisfaction. Previous studies, including those by [7], [15], and [16], confirm the importance of information and service quality in determining user satisfaction levels. These findings are reinforced by research from [9] and [8], [10], which indicate that Information System quality significantly affects user satisfaction across various contexts. Therefore, the first hypothesis (H1), stating that the Information System significantly influences User Satisfaction, is accepted, indicating that improving the quality of the information system significantly enhances user satisfaction levels.

The Information System has a significant positive effect on Intentions to Use, with an estimated coefficient of 1.556, a C.R. value of 4.798, and a very small p-value (p < 0.001). The positive estimated coefficient indicates that the better the quality of the information system, the higher the users' intention to continue using the system. The C.R. value, which far exceeds the threshold of 1.96, shows that this relationship is statistically significant, and the very small p-value supports this significance. Therefore, the second hypothesis (H2), stating that the Information System significantly influences Intentions to Use, is accepted. Previous studies, as highlighted in the UTAUT model [5] and supported by studies [7], [8], and [10], underscore that Information System quality influences users' intention to continue using the technology. The results of this analysis confirm that improving the quality of the information system has the potential to increase users' intention to continue using the system.

Meanwhile, the results of testing with SEM AMOS show that the Information System has a significant effect on Net Benefit, with an estimated coefficient of -2.08, a C.R. value of -2.38, and a p-value of 0.017. The negative estimated coefficient indicates a negative relationship between information system quality and Net Benefit, meaning that an increase in the quality of the information system may

be associated with a decrease in perceived net benefit. The C.R. value, which is significant at the 0.05 level, supports the statistical significance of this relationship, and the p-value, which is smaller than 0.05, reinforces the significance of these results. Therefore, the third hypothesis (H3), which proposed that the Information System has a significant effect on Net Benefit, cannot be accepted. However, the negative relationship found suggests that although the quality of the information system influences Net Benefit, the perceived net benefit may decrease or be affected by other unmeasured factors in this model. Studies such as those conducted by [4] and [10] indicate that information system does not always contribute to greater net benefits, possibly due to other factors influencing the perception of benefits.

### 4.2.2. Test and Analysis of the effect of Facilitating Conditions on User Satisfaction, Intentions to Use, and Net Benefit of SISKEUDes.

In the UTAUT Model, Facilitating Conditions play an important role in influencing User Satisfaction, Intentions to Use, and the Net Benefit of the information system. Based on previous research, such as the study conducted by [7], it was found that good Facilitating Conditions, including technical support and training, can significantly enhance user satisfaction. This finding is supported by the analysis results, which show that hypothesis H4, proposing that Facilitating Conditions significantly influence User Satisfaction, is accepted. With a positive estimate of 0.261, a C.R. value of 2.211, and a p-value of 0.027, these results confirm that adequate facilitating conditions contribute to increased user satisfaction with SISKEUDes.

However, the effect of Facilitating Conditions on Intentions to Use does not support hypothesis H5. Although several studies, such as those conducted by [18]-[24], suggest that facilitating conditions can enhance users' intentions to continue using technology, the analysis results in the context of SISKEUDes indicate a negative estimation coefficient of -0.297, a C.R. value of -1.621, and a p-value of 0.105, which suggests that this relationship is not significant. This indicates that, in this case, facilitating conditions may not have a strong enough impact to significantly influence users' intentions.

Additionally, hypothesis H6, which proposed that Facilitating Conditions significantly affect Net Benefit, is also rejected. Research by [9] indicates that facilitating conditions have the potential to impact the net benefit of information systems. However, in this analysis, the positive estimation coefficient of 0.264, a C.R. value of 0.886, and a p-value of 0.376 suggest that this relationship is not significant. This indicates that although there is a hint of a positive influence, other factors may be more dominant in determining the net benefit of SISKEUDes, and facilitating conditions may not contribute significantly in this context.

## 4.2.3. Test and Analysis of the Influence of Habit on User Satisfaction, Intentions to Use, and Net Benefit of SISKEUDes.

In the analysis of the relationship between Habit and various outcomes of using SISKEUDes, the hypothesis test results revealed mixed findings. Hypothesis H7, which posits that Habit has a significant influence on User Satisfaction, was rejected. Previous research, such as that conducted by [13], suggested that habits in using technology can contribute to user satisfaction. However, in the context of SISKEUDes, the analysis showed a negative estimate of -0.186 with a C.R. value of -2.262 and a p-value of 0.024, indicating that the effect of Habit on user satisfaction was not significant. This may imply that user habits in using SISKEUDes do not necessarily enhance their satisfaction, possibly due to other factors influencing the user experience.

For hypothesis H8, which proposed that Habit significantly influences Intentions to Use, the results also indicated rejection. Although literature, as suggested by [5] and [19], shows that Habit can affect the frequency and intensity of technology usage, the analysis of SISKEUDes showed a negative estimate of -0.643, C.R. of -4.75, and a very small p-value (\*), indicating that the effect of Habit on usage intentions is not significant. This suggests that usage habits do not significantly influence users' intentions to continue using SISKEUDes.

In contrast, hypothesis H9, which states that Habit has a significant effect on Net Benefit, is accepted. Based on research by [10] and [13], a strong Habit in using technology can enhance the

perceived Net Benefit by users. The analysis results show a positive estimate of 0.838, with a C.R. value of 2.517 and a p-value of 0.012, indicating that Habit has a significant positive influence on the net benefit of SISKEUDes. This suggests that users' routine use of the system contributes to increased efficiency and effectiveness of the system, as well as perceived benefits such as improved financial management.

### 4.2.4. Testing and Analysis of the Mediating role of User Satisfaction in SISKEUDes on the Relationship between Information Systems, Facilitating Conditions, and Habit with Net Benefit in using SISKEUDes.

The analysis of hypothesis H10, which states that User Satisfaction mediates the influence of Information Systems, Facilitating Conditions, and Habit on Net Benefit in using SISKEUDes, indicates that this hypothesis is rejected. In the context of the Information System Success Model by [1]-[3], User Satisfaction is often considered a key indicator of the success of an information system, which can be directly related to Net Benefit. Research by [16] [15] [17] confirms that User Satisfaction can affect Net Benefit by improving the efficiency and transparency of the system in use. However, in the case of SISKEUDes, the analysis shows a positive estimate of 0.626, with a C.R. value of 1.877 and a p-value of 0.061, indicating that the effect of User Satisfaction on Net Benefit is not significant at the  $\alpha = 0.05$  level.

These results do not fully align with expectations, indicating that although User Satisfaction plays an important role in theory, the relationship between user satisfaction and perceived net benefits in the context of SISKEUDes is not very clear. The UTAUT model also suggests that User Satisfaction can serve as a mediator in the relationship between various factors and system benefits [5]. However, findings from [11] and [13], which show that User Satisfaction can enhance Net Benefit, were not fully realized in this analysis. It is possible that other factors affecting Net Benefit, such as system quality and technical support, are more dominant, or there may be other constraints that are not captured in this model.

Overall, the analysis results indicate that although User Satisfaction plays an important role in information system success theory, in the context of SISKEUDes, there is not enough strong evidence to support the hypothesis that User Satisfaction significantly mediates the relationship between Information System, Facilitating Conditions, and Habit on Net Benefit. This suggests the need for further research to better understand the dynamics and factors that influence this relationship.

## 4.2.5. The Mediating Role of Intentions to Use SISKEUDes on the Relationship between Information System, Facilitating Conditions, and Habit with Net Benefit in using SISKEUDes.

The analysis of hypothesis H11, which posits that Intentions to Use mediate the effect of Information System, Facilitating Conditions, and Habit on Net Benefit in using SISKEUDes, indicates that this hypothesis is accepted. The results show that the estimated value of 0.945 with a C.R. of 2.912 and a p-value of 0.004 indicates that users' intentions to use the system have a significant effect on Net Benefit.

According to the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by [5], users' intentions to continue using the system serve as a key mediator that influences the relationship between various factors, such as system quality, Facilitating Conditions, and Habit, and Net Benefit. This theory posits that a strong intention to use the system often reflects more consistent and effective usage, which in turn can amplify Net Benefit, such as improved efficiency and transparency in system management [5].

In addition, the Information System Success Model proposed by [1]-[3] supports this finding by demonstrating that user intention plays a crucial role in mediating the relationship between User Satisfaction and Net Benefit. The research conducted by [31] underscores that user intention can amplify the positive impact of Information Systems on Net Benefit. Conversely, positive user habits contribute to the intention to continue using the system [13], while favorable Facilitating Conditions, such as technology accessibility and technical support, can encourage user intention to utilize the system [18]. Based on this evidence, Hypothesis H11 is accepted, indicating that Intentions to Use

serve as a significant mediator in the relationship among Information Systems, Facilitating Conditions, and Habit concerning Net Benefit within the context of SISKEUDes.

#### 5. Conclusion, Limitations, and Recommendations

This study assesses the combined application of the DeLone and McLean Model and the UTAUT framework within the context of the Village Financial System (SISKEUDes) in Berau Regency. The analysis results indicate that information system quality significantly influences User Satisfaction and Intentions to Use, but does not have a significant impact on Net Benefit. Facilitating Conditions positively affect User Satisfaction; however, they do not significantly influence Intentions to Use or Net Benefit. Meanwhile, Habit has a significant impact on Net Benefit, but does not affect User Satisfaction or Intentions to Use. Additionally, user intention to utilize the system is found to mediate the relationship between these factors and Net Benefit, highlighting the important role of intention in determining the net benefits of SISKEUDes.

The limitations of this study include its specific context within Berau Regency, which may not be fully representative of other regions with different conditions. Additionally, this research does not take into account several additional variables that could influence the outcomes, such as unique cultural and local factors. Furthermore, limitations in data and analysis methods may affect the results and interpretations of causal relationships. Therefore, it is important to conduct further research by expanding the contextual scope and considering additional variables to provide a more comprehensive understanding.

Theoretically, this study expands the understanding of the combined application of the DeLone and McLean Model and UTAUT in the context of village information systems, highlighting the important role of user intention in influencing Net Benefit. From a managerial perspective, these findings underscore the need to enhance information system quality, strengthen facilitating conditions, and promote positive habits in system usage to increase net benefits. Improvements in infrastructure and user training are also recommended to enhance user satisfaction and system effectiveness. This research provides practical insights for the development and management of information systems at the village level and offers a foundation for more effective future system improvement strategies.

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