What Drives Students to Feel the Impact of Online Learning in Using a Cloud Accounting Integrated System?

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Abstract **– cloud accounting is an accounting information system based on cloud technology that can make transactions online. This study focused on determining the elements that influence the acceptance of cloud accounting in education. These research targets are students who use cloud accounting in their learning classes. By using the census method, a total of 240 students were used as respondents to answer questionnaires after completing learning through cloud accounting. Then, the data were analysed using a partial least squares approach. The results show that Cloud accounting quality (CAQ), Instructor characteristics (IC), confirmation (CN), and Perceived ease of use (PEOU) influence perceived usefulness (PU). Additionally, PU and PEOU improve Intention to use (INCA) and Satisfaction (SS). The findings of this research provide input to lecturers to improve teaching methods and instructions in using learning media through technology so that students understand the learning is carried out.**

Keywords **– cloud accounting, performance impact in learning, student satisfaction, technology adoption.**

DOI: 10.18421/TEM114-19
https://doi.org/10.18421/TEM114-19

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Received: 05 August 2022.
Revised: 24 September 2022.
Accepted: 27 September 2022.
Published: 25 November 2022.

1. Introduction

Education is currently undergoing significant changes. The existence of COVID-19 has made the development of learning in the field of education very developed. Prior to COVID-19, the use of technology had a massive impact on the field of learning and education. Especially when the occurrence of COVID-19, all aspects such as economic conditions, social restrictions, and the threat of death are very influential [1], so face-to-face learning becomes limited. So, online learning is one solution for implementing education to run well.

The use of learning methods using technology assistance is almost applied in all lines of education. In the learning process, it is crucial to consider students' interest in the learning model [2]. In addition, using technology in the learning process can make communication between lecturers and students more intense [3]. One form of technology-based learning is cloud computing. Cloud computing is an information technology that allows users to access databases in real-time. The technology is almost applied in all organizations, including educational organizations. One of the cloud computing technologies used in education is a cloud accounting integrated system, commonly referred to as cloud accounting. Cloud accounting allows processes in the accounting cycle to be processed through cloud technology.

Cloud accounting is an accounting information system that can be accessed online through cloud technology. The presence of cloud technology can facilitate users' access to data at any time and location, especially in reducing manual data processing [4]. The research is supported by the results of a survey in the field where 39% of professional accountants revealed that reducing manual data processing is the most important in completing work [5].

Cloud Accounting is a web-based accounting information system that can record transactions anywhere and anytime. With cloud technology, the transaction input process becomes more efficient. After all, it does not require hardware or software because it can be accessed anywhere using the internet. The main characteristics of cloud computing technology are self-service that can be accessed according to user requests, information collection, rapid elasticity, scalable services, and an extensive network [6].

In terms of learning, cloud accounting can help lecturers convey accounting technology to students. Lecturers can also monitor student learning progress in real-time. Meanwhile, cloud accounting can help students learn accounting information efficiently. Students can view financial reports quickly without the need to work in each accounting cycle. In cloud accounting, students only need to input transactions. Then the related financial information will automatically appear. Previous research has proven that cloud accounting can help accountants complete their tasks [7]. As many as 56% of professional accountants revealed that cloud accounting could increase productivity, mainly because work can be completed quickly and efficiently [8].

Accounting students who will become accountants must learn all aspects of accounting at the University. Previous research also proves that implementing cloud accounting in student learning can improve students' understanding of accounting courses [9]. According to a survey published by SMR, almost 92% of students have problems when doing online learning. The main factors are the lack of clear instructions from the lecturers (38%) and inadequate internet [10]. So, it is imperative to improve the competence of lecturers. Directions from lecturers can make students understand what they are learning to create perceived usefulness (PU) for cloud accounting. Previous studies have shown that IC significantly influences PU [11]. So, it is vital to improving the competence of lecturers. Directions from lecturers can make students understand what they are learning to create perceived usefulness (PU) for cloud accounting. Previous studies have shown that IC significantly influences PU [12], [13]. Even some previous researchers mentioned that PU and PEOU are essential factors in making students use technology in the field of learning. Students will use technology if the quality offered for the technology follows student needs [14].

Based on the previous literature, TAM proved to be one of the valuable models to describe the acceptance of the use of technology in various fields, including learning [11], [13], [15]. According Abdullah & Toycan, who studied the impact of technology on learning, the primary TAM constructs, namely PU and PEOU, can describe the acceptance of technology in learning [16]. The use of technology in education has various research developments, especially those related to technology acceptance models such as e-learning [15], Learning management systems [17], and gamification [2], [13]. Several variations of previous studies also showed exciting findings regarding technology, media literacy, cultural differences, and educational methods [13], [16]. Thus, TAM research in education needs to be carried out to analyze strategies for improving student learning through technology, especially cloud technology in social sciences learning such as accounting and management. Based on the explanation above, this study aims to find critical factors in improving student performance in learning through a cloud accounting integrated system.

2. Literature Review

Davis initially proposed TAM to evaluate the intent to adopt the technology [18]. TAM is used to analyze the technological adoption levels of users. TAM for education evaluates whether students can accept the technology or learning media. Other researchers have also widely studied TAM, especially technology-related [11], [13], [15], [19]. All these researchers agreed that TAM could measure the level of adoption of learning technology for students.

According to Davis, behavior intention (BI) is the user's desire to use technology continuously [18]. Essential factors that cause users to adopt technology are perceived ease of use (PEOU) and perceived usefulness (PU). PU is the extent to which an individual believes that technology may enhance the performance of its users [18]. In other words, the magnitude of PU in education refers to students' view of the learning advantages of technology that can increase their academic scores. Meanwhile, PEOU measures the level of user confidence that the technology is simple and does not require much effort to use the technology [13], [18], [20]. Abdullah and Toycan, who researched the adoption of e-learning in Iraq, found that PU and PEOUE are the primary elements in the TAM model [16]. The higher the PU and PEOU, the user continues to use. The facilities and benefits in question are about learning media that can improve student academic achievement, such as access and quickly producing information.

ECM is a theoretical framework used in information systems research [21]. ECM also focuses on adopting technology use and user satisfaction [22]. In education, ECM theory is used to confirm satisfaction and adoption of the learning technology

used. In ECM, satisfaction is the most crucial factor that can connect to the use of technology [23]. while other constructs in ECM which are also included in this study are PU and confirmation. Confirmation is seen as students' initial expectations about learning using technology that can be confirmed after gaining experience in using the technology [22], [23].

The quality of technology in the education context is shown by users' good perception of the technology used in learning. In this study, cloud accounting quality (CAQ) is the effectiveness and efficiency of cloud accounting [24]. By using cloud accounting, students will get a different experience compared to face-to-face learning. Through cloud accounting, students can get information quickly and easily access the menus. In other words, the quality of cloud accounting can assist students in studying courses in accounting. Students also like to use cloud accounting because it benefits their flexibility compared to manual learning media. Thus, high quality and dependence on cloud accounting result in higher student satisfaction [24]. The study is evidenced by previous research where the use of web-based learning systems can be explained by quality web content [25].

The existence of online learning requires a fast-learning process. The technology used in learning has a fast response time, provider support, and a pleasing appearance. Previous research has proven that the quality of a platform greatly influences the intention to use a platform [13], [20], [26]. Therefore, the first hypothesis is:

H_1: CAQ has a positive impact on PU

In improving student learning outcomes, the role of the instructor is significant. Instructors can make students quickly learn the course. Furthermore, vice versa, instructors can make it more difficult for students to learn subjects. Instructor characteristics show a high level of knowledge and motivation in technical knowledge that can encourage students to study courses through time response, confidence, and innovation [20].

Lecturers are the main factor in determining learning activities [24], [27]. A lecturer can make students quickly understand learning. So it is not surprising that lecturers must have suitable characteristics so students can understand learning well. IC has a crucial role in adopting technology, especially in the field of education, in order to enhance student academic achievement [11], [13]. Many previous researchers found that IC has a positive role in PU [13], [28]. Many previous researchers found that IC has a positive role in PU:

H_2: Instructure Characteristic has a positive impact on perceived usefulness

Confirmation (CN) refers to how much students expect to learn with specific methods that can satisfy students [21]. In ECM, PU can increase the expected benefits with the expected confirmation when using the technology [23]. Confirmation is also a fundamental indicator in confirmation theory [21]. Previous research also revealed that confirmation influences student satisfaction [24]. Therefore, the third and fourth hypotheses in this study are:

H_3: CN has a positive impact on PU
H_4: CN has a positive impact on SS

The greater the benefits students feel when using cloud computing, the desire to continue to use cloud computing in other learning is getting bigger. TAM and ECM theory state that PU is the essential factor in making users satisfied and start to continue using technology [21], [29]. Technology with many benefits, such as faster input and output of information, will increase student satisfaction. Likewise, the findings of previous studies where PU positively impacts student satisfaction [20], [23]. In addition, PU is the clearest indicator of intention to adopt technology (INCA) [12], [17]. Then the fifth and sixth hypotheses proposed are:

H_5: PU has a positive impact on INCA
H_6: PU has a positive impact on S

PEOU is the level of technology use that requires little effort [18]. PEOU in this research refers to the ease of using cloud accounting. The easier it is to use technology, the students increasingly perceive that using technology such as cloud accounting is helpful [4], [30]. Previous research has proven that the ease of technology dramatically affects the PU of a platform [23], [26]. The ease of technology for students is considered a reflection of their enthusiasm for learning subjects. Thus, it can be argued that PEOU is a crucial aspect of the successful use of technology. A previous study has demonstrated that the ease of technology dramatically affects the intention to use a platform [11], [19].

In addition, convenience also significantly affects student satisfaction [24]. The easier it is to use technology in the learning process, the students will also feel satisfied. Previous research has also confirmed that convenience can increase student satisfaction and support the desire for students to continue to use technology in learning [13]. Thus, the seventh, eighth, and ninth hypotheses in this study are:

H_7: PEOU has a positive impact on PU
H_8: PEOU has a positive impact on INCA
H_9: PEOU has a positive impact on SS

Satisfaction is one of the crucial factors in making someone decide whether technology is used or not

[13]. Student satisfaction in adopting technology as a learning medium is a student's assessment of the use of the technology in supporting comfort in learning. Therefore, when students feel that the technology used in learning media is helpful, they tend to be a substance with the technology. Then students are also more likely to talk more often to other people, especially to students.

The relationship between the satisfaction felt by students and performance can produce a meeting point for the learning experience that students get [31]. When students get a high sense of satisfaction, learning outcomes can be achieved by themselves. Bossman & Agyei say that satisfaction can positively affect student performance [24]. When students are satisfied, the desire to continue to use gets bigger. In addition, satisfaction can also improve student academic performance because the students like to operate cloud accounting. It will indirectly increase their understanding of accounting in general. So it is not surprising that previous research also indicated that satisfied students tend to improve their academic achievements [2].

Students can also feel satisfaction when they get a high-grade point average (GPA) score [24]. That way, students are excited when using technology can achieve student achievement through the GPA. When universities start to use technology in the learning process, students can understand the lessons better. Previous research has proven that student satisfaction can increase the intention to use cloud computing [2], [21], [23] and also Perceived impact on learning (PIL) [23]. Based on the explanation, the tenth and eleventh hypotheses are:

H_{10}: SS has a positive impact on INCA
H_{11}: SS has a positive impact on PIL

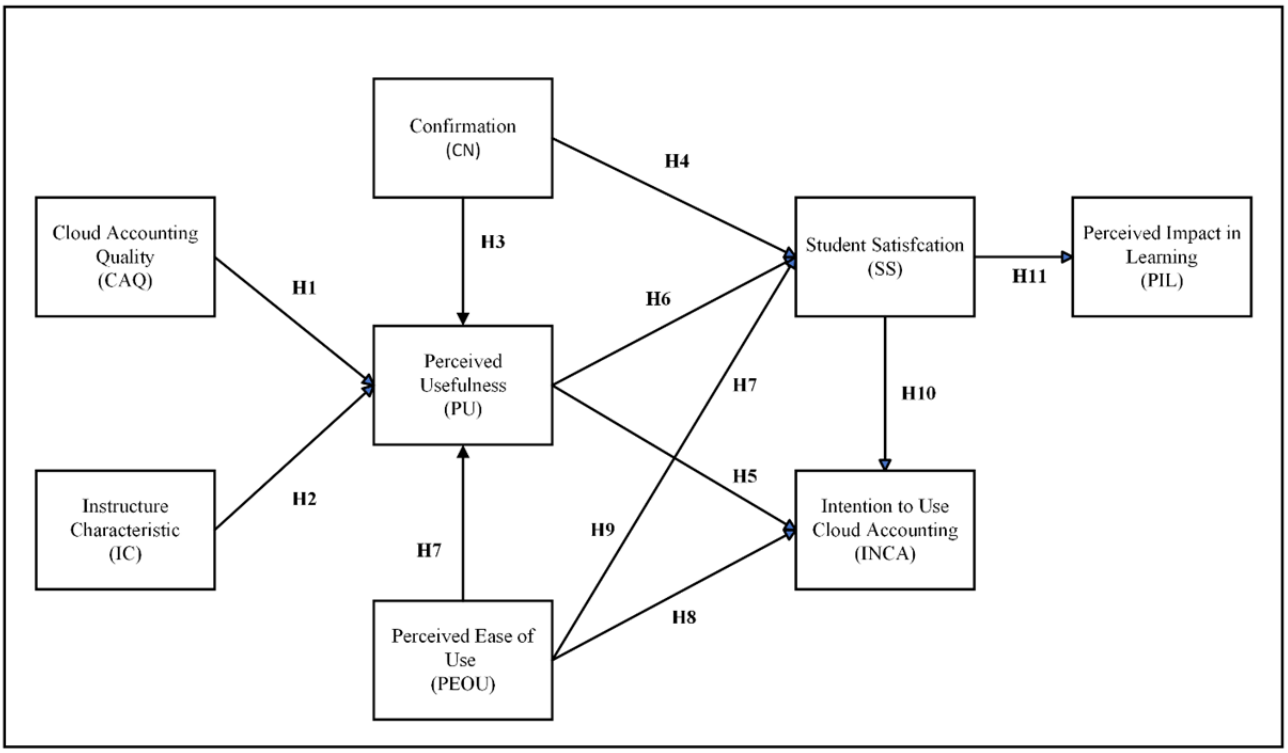

Figure 1. Research Model

3. Methodology

This study's population was Indonesian students who utilized cloud accounting to learn accounting information systems, management information systems, and computerized accounting courses. The sampling method is the census. The census is chosen because a population is used as a population. Students study lecture material with cloud accounting learning media in each course when learning is done. Then at the end of the class, students were requested to complete an online survey. All students who take courses in accounting information systems, management information systems, and computerized accounting fill out the questionnaire provided so that the total number of filling out questionnaires is 240.

The scale for determining the questionnaire selection starts from the lowest, namely the number "1 = strongly disagree" to the number "5 = strongly agree". The questionnaire was prepared online via Microsoft form. When opening the online questionnaire for the first time, students will fill in demographic data such as gender and age. Afterward, students completed an evaluation questionnaire regarding cloud accounting as a learning medium. On the questions in the TAM model, the authors adopt

from Venkatesh & Bala, namely perceived usefulness with 4 question items and perceived ease of use with 4 question items [32]. Then in measuring Behavior intention in adopting information systems [32], the authors adopt based on cloud accounting, namely the intention to use cloud accounting with a total of 4 question items. In addition, this research also intersects with the success theory of information systems adopted by Delone & McLean, namely cloud accounting quality [33] with 4 question items and student satisfaction [22], [23] with 4 question items. Then other variables such as instructor characteristic [20] have four questions , confirmation with four questions, and perceived impact in learning [21] with four questions.

This study employs data analysis through SEM-PLS. The use of the SEM-PLS method for the development of research models. In addition, SEM-PLS can also measure the relationship between each construct, including the measurement and structural models. The measurement models aim to measure the validity and reliability of a construct by evaluating composite reliability (CR), Cronbach alpha (CA), and average variance extracted (AVE) [34]. At the same time, the structural model measures the suitability of the proposed model. The structural model is measured by evaluating the path coefficient, R^2, f^2, and Q^2.

4. Result

Measurement Model

The measurement model assesses the validity and consistency of the data. Table 1 below shows the values in the measurement model derived from the SMARPLS output in the PLS algorithm section. To assess the reliability of respondents in answering the questions posed, the first thing to do is to evaluate the outer loading in each construct. The recommended outer loading value is 0.7 [34]. Thus, it can be concluded that the data of this study can be continued to measure the criteria of other measurement models.

To validate respondent data, each variable's AVE value must be more than 0.5 [34]. Table 1 below shows the AVE values of all variables. From the data, the smallest AVE value is in cloud accounting quality (0.649). However, the value exceeds the recommended figure of more than 0.05. Thus, all the data that has been collected has multiple validities. Next is to measure the reliability of the data by analyzing the value of composite reliability (CR) and Dijkstra-Hanseler's rho (ρA). The recommended CR value is above 0.7, while the recommended A value is above 0.7 [34]. Based on table 1 below, the smallest values of CR and A are in the construct cloud accounting quality of 0.881 and 0.820, respectively. Thus, all constructs in this study meet reliable data.

Table 1. The result of a measurement model

Item	Questioner	Outer loading	Cronbach alpha	Dijkstra–Henseler's rho (ρA)	CR	AVE
	Cloud accounting Quality (CAQ)		0.820	0.823	0.881	0.649
CAQ1	**CAQ1** cloud accounting has a layout and user interface that is comfortable to see in learning	0.842				
CAQ2	**CAQ2**, when using cloud accounting, it is easy to navigate in classroom learning	0.768				
CAQ3	**CAQ3** cloud accounting has the features and services I need in classroom learning	0.827				
CAQ4	**CAQ4** in using cloud accounting in class, I feel comfortable because cloud accounting has all the benefits and services I need	0.783				
	Instructure Characteristic (IC)		0.901	0.904	0.927	0.718
IC1	**IC1** lecturer explains the steps for working on cloud accounting properly and competently	0.845				
IC2	**IC2** lecturers provide progress in learning outcomes in the use of cloud accounting	0.900				
IC3	**IC3** Lecturers clearly explain the instructions for using cloud accounting	0.858				
IC4	**IC4** Lecturers provide values and results of student learning progress in a fair and transparent manner	0.792				
IC5	**IC5** lecturers motivate students about the importance of using cloud accounting	0.838				
	Confirmation (CN)		0.890	0.894	0.924	0.753
CN1	**CN1.** My experience in using cloud accounting in accounting courses is better than	0.856				

	I expected					
CN2	**CN2**. I agree that using cloud accounting in the learning system is better	0.902				
CN3	**CN3.** In general, my expectations are met in using cloud accounting in a learning context	0.801				
CN4	**CN4**. The features and services provided by cloud accounting are better than I expected	0.907				
	Perceived usefulness (PU)		0.916	0.917	0.941	0.799
PU1	**PU1**. The use of cloud accounting systems has more advantages compared to conventional accounting information system software	0.911				
PU2	**PU2**. The use of cloud accounting can input and output transactions faster	0.926				
PU3	**PU3**. Cloud accounting is comfortable to use because it has attractive features and appearance	0.871				
PU4	**PU4.** The use of cloud accounting helps improve understanding in classroom learning	0.865				
	Perceived ease of use (PEOU)		0.883	0.887	0.919	0.740
PEOU1	**PEOU1**. Cloud accounting is easy to access anywhere and anytime	0.823				
PEOU2	**PEOU2.** Cloud accounting is clear and understandable quickly	0.860				
PEOU3	**PEOU3.** Cloud accounting is easy to use	0.878				
PEOU4	**PEOU4.** The use of cloud accounting can be learned easily. so it can quickly become skillful	0.880				
	Student satisfaction (SS)		0.870	0.874	0.912	0.721
SS1	**SS1**. I am satisfied with cloud accounting because it can produce the correct information output	0.867				
SS2	**SS2**. When using cloud accounting, I am satisfied with the output of the information produced so that learning in class becomes easier	0.882				
SS3	**SS3**. Cloud accounting produces complete information in classroom learning	0.793				
SS4	**SS4.** I am satisfied with all the features and uses of cloud accounting in classroom learning	0.850				
	Intention to use cloud accounting (INCA)		0.863	0.864	0.907	0.709
INCA1	**INCA1**. I intend to use cloud accounting because it is more useful	0.880				
INCA2	**INCA2**. I try to use cloud accounting when learning in class	0.844				
INCA3	**INCA3**. I use cloud accounting quite often	0.840				
INCA4	**INCA4**. I recommend cloud accounting to others	0.801				
	Perceived impact in learning (PIL)		0.859	0.870	0.904	0.703
PIL1	**PIL1.** I have felt a positive impact on the courses I study after using cloud accounting-based learning	0.846				
PIL2	**PIL2.** By using cloud accounting as a learning medium, my learning process gets better	0.874				
PIL3	**PIL3.** I get a better understanding of the concepts of the courses learned after using cloud accounting	0.868				
PIL4	**PIL4.** Learning cloud accounting online can help me excel in academics	0.760				

The subsequent analysis is to analyze discriminant validity through the Fornell–Larcker criterion. The square root of the AVE must have a greater value than the correlation construct with the latent variable. Table 2 below shows the value of the Fornell–Larcker criterion. The values for all the same

constructs are greater than the target constructs with other constructs. For example, the CAQ with the CAQ on the right has a value of 0.806. greater than CN with CAQ (0.673). As well as other constructs such as CN - CAQ (0.673), IC - CAQ (0.528), INCA – CAQ (0.528), PEOU – CAQ (0.607), PIL – CAQ (0.564), PU - CAQ (0.586), and SS - CAQ (0.580). from the description, all comparisons in each construct with CAQ are smaller than the CAQ and CAQ values (0.806). Therefore, the CAQ construct fulfills the criteria for discriminant validity by the Fornell–Larcker criterion.

Table 2. Fornell–Larcker criterion

	CAQ	**CN**	**IC**	**INCA**	**PEOU**	**PIL**	**PU**	**SS**
CAQ	0.806							
CN	0.673	0.868						
IC	0.496	0.598	0.847					
INCA	0.528	0.520	0.590	0.842				
PEOU	0.607	0.558	0.591	0.647	0.860			
PIL	0.564	0.565	0.675	0.692	0.675	0.839		
PU	0.586	0.433	0.526	0.608	0.707	0.564	0.894	
SS	0.580	0.559	0.668	0.743	0.697	0.759	0.657	0.849

Furthermore, in analyzing discriminant validity by evaluating the Heterotrait-monotrait (HTMT) ratio. HTMT measures the correlation between heterotrait and monotrait. No correlation occurs if the HTMT value is below 0.9 [34]. The output data from smart pls show that the HTMT value is below 0.9 with a range of 0.480 – 0.871. In other words, the HTMT data in table 3 below met the discriminant validity criteria.

Table 3. Heterotrait-monotrait (HTMT) ratio

Variable	**CAQ**	**CN**	**IC**	**INCA**	**PEOU**	**PIL**	**PU**
CAQ							
CN	0.788						
IC	0.577	0.667					
INCA	0.622	0.594	0.667				
PEOU	0.705	0.629	0.656	0.741			
PIL	0.671	0.644	0.766	0.797	0.769		
PU	0.667	0.480	0.576	0.684	0.781	0.635	
SS	0.677	0.634	0.750	0.856	0.795	0.871	0.735

Structural Model

Structural data aim to evaluate the model built and whether it follows the results according to the statistical data, as shown in Table 4 below.

Table 4. Structural model evaluation

Hypotheses	**Predictive Relevance (Q^2)**	**R Square** (R^2)	**R Square adjusted**
INCA	0.412	0.592	0.587
PIL	0.419	0.613	0.610
PU	0.438	0.558	0.550
SS	0.408	0.576	0.571

Before testing the hypothesis, the next step is to analyze Predictive Relevance (Q^2), R Square, R Square adjusted, and f square. The value of R Square aims to see the combined effect of a model. If the R square (R^2) value is 0.75, it means that it is substantial, moderate with a value of 0.50, and weak at 0.25 [34]. The data indicate that the R square for INCA is 0.592, PIL is 0.613, PU is 0.558, and SS is 0.576. PU, PEOU, and SS Together affect INCA with a correlation magnitude of 0.592 or 59.2%. Then SS and INCA have a collective positive impact of 0.614 or 61.4% on PIL. Then the CAQ, IC, and CN variables affect PU by 0.558 or 55.8%.

Then the SS variable has a combined effect of CN, PU, and PEOU of 0.576 or 57.6%. Thus, these results show that INCA, PIL, PU, and SS are categorized as moderate.

After conducting a structural analysis of the model using f square and R Square, the next step is to analyze Predictive Relevance (Q^2) to predict the model researchers have built. If the Q^2 value is above 0, the model built shows sufficient predictive power [34]. Based on table 4, Q^2 shows a range of values from the lowest to the highest of 0.408 – 0.438 or 40.8% to 43.8%. Thus, the model proposed in this study has a reasonable model fit rate.

Table 5. f square

	INCA	PIL	PU	SS
CAQ			0.091	
CN			0.023	0.086
IC			0.034	
PEOU	0.036		0.308	0.121
PIL				
PU	0.018			0.114
SS	0.312	0.347		

Next is to do an effect size analysis. Effect size aims to see the magnitude of the relationship of a path model. Statistical results are shown in Table 5 above. Effect size criteria are classified into small (0.02), medium (0.15) and 0.35 (large) [34]. In the PU variable, the smallest effect size on the CN variable is 0.023 (small effect size). At the same time, the largest effect size on the PU variable lies in the PEOU variable of 0.308, which is categorized as a medium effect size. Then in the SS variable, the largest effect size is in PEOU, which is 0.121 (small effect size), and the smallest is in CN of 0.086 (small effect size). Furthermore, the PIL variable with SS with an effect size of 0.347 (large effect size). Meanwhile, the INCA variable's largest effect size is in the SS variable, which is 0.312 (medium effect), and the smallest is in the PU variable, which is 0.018 (small effect size).

Hypotheses

The final step of the SEM-PLS study is to test the suggested hypothesis using statistical data. Table 6 below shows the values that decide how a hypothesis is accepted or refused. The method compares the p-value to the 5% error rate.

Table 6. Result of hypotheses testing

	Hypotheses	Original sample	P-value	Supported
H1	CAQ → PU	0.292	0.000	yes
H2	IC → PU	0.166	0.001	yes
H3	CN → PU	-0.150	0.018	yes
H4	CN → SS	0.230	0.000	yes
H5	PU → INCA	0.127	0.044	yes
H6	PU → SS	0.311	0.000	yes
H7	PEOU → PU	0.515	0.000	yes
H8	PEOU → INCA	0.191	0.002	yes
H9	PEOU → SS	0.348	0.000	yes
H10	SS → INCA	0.526	0.000	yes
H11	SS → PIL	0.547	0.000	yes

Table 6 above shows the results of the impact output between constructs and the results of decisions from the proposed hypothesis based on data processing using SEM-PLS. Based on the 12 hypotheses proposed, all hypotheses have a p-value below 0.05. the largest value is in the 5th hypothesis, namely PU->INCA (p-value = 0.044 < error rate = 0.05). However, the p-value is still below 0.05, so the results have a positive effect. CAQ has a positive effect on PU (p-value = 0.000, < error rate = 0.05). Thus, H1 supports the statistical results of this study with a magnitude of the effect of 29.2%.

Meanwhile, IC also has a positive effect on PU (p-value = 0.001, < error rate = 0.05) with a magnitude of 16.6%. Then on the CN construct, it has a significant positive impact on PU (p-value = 0.018, < error rate = 0.05) and student satisfaction (p-value = 0.000, < error rate = 0.05). Thus, H3 and H4 support the results of the study statistically with the magnitude of the effect of negative 15% and positive 23%. then H5 and H6 also support statistically where PU has an influence on INCA (p-value = 0.044, < error rate = 0.05) and SS (p-value = 0.000, < error rate = 0.05) with a large effect respectively 12.7% and 31.1%. then PEOU in hypotheses 7,8 and 9 has a significant positive effect on PU (p-value = 0.000, < error rate = 0.05), INCA (p-value = 0.002, < error rate = 0.05) and SS (p-value = 0.000, < error rate = 0.05) with the magnitude of the effect of 51.5%, 19.1% and 34.8%, respectively. SS constructs that represent H10 and H11 have a significant positive impact on INCA (p-value = 0.000, < error rate = 0.05) and PIL (p-value = 0.000, < error rate = 0.05). Thus, H10 and H11 support the study's results with 52.6% and 54.7%, respectively. The relationship between SS and PIL has the greatest impact among other constructed relationships

5. Discussion

Learning media using cloud accounting can make it easier for students to improve their academic performance because cloud accounting has many uses, especially in the system's quality. This study's findings demonstrate that CAQ has a 29.2% beneficial effect on PU. Students agree that cloud accounting has the features and services needed in online classrooms. For example, uploading tasks can be flexible. In addition, cloud accounting is also easy to navigate. The menus are also easy to see and familiar. Calisir & Calisir (2004) found that using an online learning system can be described when high-quality content is high. Previous research reinforces his other findings that when the technology is of high quality, users tend to rate the technology as useful [20], [26]. The higher the quality, the students feel that the use is helpful because it can fulfill their academic activities [30].

In addition, the findings of this study also show that PEOU has a positive impact on PU by 51.5%. This finding shows that students think that cloud accounting is easy to run. Students also like the benefits and services provided, primarily because of the flexibility that they can be accessed anywhere. So that students think that cloud accounting is applicable. In addition, another factor that makes it valuable is the layout and interface that is comfortable and neat when used in learning so that students can more easily understand learning in the classroom. Learning is more accessible, allowing students to feel that cloud accounting is applicable. This study's findings align with previous studies where PEOU positively affects PU [4], [30].

A sound information system does not run optimally if the lecturer does not explain it step by step. So, the role of lecturers in directing their students is crucial. This is evident from this study's results, where IC significantly increases the amount of PU by 16.6%. One thing that motivates students is that the lecturer shows students' progress in running cloud accounting. In addition, students agree that when lecturers show learning progress, students will feel comfortable using cloud accounting. Previous researchers where lecturer explanations can improve student learning understanding [13], [20], [28]. So, it is natural for students to feel that cloud accounting can improve learning depending on how the lecturer explains it.

While the experience factor also actually affects the way students understand the benefits of cloud accounting. Students with high CN tend to have high PU [24]. This is seen in students' perceptions that technology in accounting is a good thing for the accounting profession in the future, so students think that when using cloud accounting can significantly increase the benefits of using it. Thus, the more features and benefits of cloud accounting, the more student satisfaction increases, so students can accept and continue to use cloud accounting comfortably during lectures. Muñoz-Carril et al. found Confirmation is a fundamental indicator in confirmation theory [21]. The findings of this study also prove that CN has a significant positive impact on SS by 23%. In this research, learning outcomes using cloud accounting align with student expectations, especially regarding the features and services available in cloud accounting. When experiencing problems, students can find a call center from a cloud accounting service provider. The menu provided is also easy and comfortable to learn. So, students feel that cloud accounting is beneficial, especially in supporting learning in courses related to accounting.

According to students, the most beneficial superior feature is that a transaction's input and output processes are available quickly. In addition, cloud accounting can also be accessed anywhere and anytime with the help of the internet network, in contrast to traditional accounting software, which requires users to install it on their respective computers or laptops. So, when students want to access the required information, they must move the last created file. Nevertheless, cloud accounting technology can allow the desired information to be accessed quickly and accurately. These many benefits make students satisfied with the features and services of cloud accounting. So, it is not surprising that the research findings show that PU can significantly influence SS and INCA by 12.7% and 31.1%, respectively. Students who feel the many benefits of the technology used; the students will also be more satisfied with the technology. Research by Adjei et al. prove that the presence of accessible technology will increase PU on cloud accounting so that it has an impact on greater user satisfaction [26]. Likewise, the many conveniences presented by technology make users more satisfied. So, it is not strange if technology such as cloud accounting can increase the benefits and ease of learning in the accounting field without great effort. Even some previous researchers agreed that the higher the PU and PEOU for the technology used, the more satisfied users would be with the technology [13], [21], [23].

The high level of student satisfaction can be seen in students' answers to cloud accounting features and services. Especially in financial statement outputs which can be processed very quickly, compared to manual work, which requires a long time to process input to output financial statements. The use of cloud accounting can produce financial reports very quickly and accurately. So, it helps students in improving understanding and learning. The impact is that students often use cloud accounting in learning in other courses. The results of previous studies show

that the higher the SS, the greater the tendency to continuously use the technology [13], [21], [23].

With many features and services that make learning easier for students, it is not surprising that students like cloud accounting to support learning. Students often recommend cloud accounting to their classmates in other courses. In addition, to the speed of its output in generating information, its use is also easy and fast under the TAM theory that the more accessible the technology to use, the students tend to continue to use it. Likewise, when the technology has features and services that suit students' needs, they will continue to use it. In other courses, it is common for students to use cloud accounting to ensure the process and respond to a transaction—the intensity of the use of cloud accounting results in students' ability to understand courses faster and can improve student performance. Following previous research where, when students are satisfied with using technology, PIL becomes better at learning [21], [23]. Compared to conventional methods, teaching media such as cloud accounting makes the learning process more fun, and better understands the essence of accounting courses.

6. Conclusion and Implementation

This research is developing the technology adoption model using TAM by integrating the IS success theory developed by McLean & Delone and the Expectation confirmation model. In addition, this research model also adds another construct following the research phenomenon, namely instructor characteristics. The results show that all research hypotheses directly affect INCA Student Satisfaction and PIL. The findings of this study are also following the TAM theory. Namely, PEOU and PU impact INCA, SS, and PIL. One of the most extensive contributions is the PEOU construct toward PU. Students feel that the features in cloud accounting are effortless and fast compared to learning with traditional methods that take longer when using cloud accounting.

Meanwhile, the enormous contribution in this study was on the SS variable on PIL. When students are satisfied with using certain technologies in the learning media used in the classroom, students likely have a significant impact on the learning process. so the main focus that must be considered for academics or the government is on student satisfaction in adopting learning media. Moreover, following the ECM theory, CN can confirm PU and SS. Finally, according to the IS Success model, system quality can improve PU. Thus, the results of this research also confirm the integration of the TAM, ECM, and IS Success models, especially regarding technology in the field of education.

This research shows that cloud accounting can improve student academic performance. The magnitude of the relationship comes from student satisfaction. In comparison, the most significant impact when students feel satisfied is influenced by how the features and convenience of cloud accounting. Meanwhile, an important role is also seen in the instructor's characteristics. The result means that lecturers must improve the way of learning that is fun when using cloud accounting-based learning media. The findings of this study also show the contribution of factors that influence INCA, SS, and PIL, especially in the use of cloud accounting learning media.

Further research should also conduct descriptive studies to strengthen the results of this study. Then this study also combines several previous theories such as IS success model, ECM, and TAM. So that this combination of models can also be used for other learning contexts using technology such as gamification or e-learning. Finally, the most influential variable in this study came from SS to PIL. So, lecturers need to focus on student satisfaction in every use of learning media to increase student achievement academically. For the government, the results are significant for implementing learning according to the needs of students. The government can carry out policies following the convenience of lecturers and students. Because these two things are the cause and effect that mutually affect each other.

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