



## Analysis of ease and usefulness of using google sheets in accounting assignment with technology acceptance model approach

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### ABSTRAK

Pelaksanaan kegiatan pembelajaran akuntansi saat ini sudah mulai dilakukan dengan berbantuan aplikasi. Aplikasi yang digunakan sebaiknya adalah aplikasi yang dapat diterima oleh seluruh siswa karena hal tersebut akan memudahkan siswa dalam memahami materi pembelajaran. Penelitian deskriptif kuantitatif ini dilakukan dengan tujuan untuk mendeskripsikan tingkat penerimaan siswa terhadap penggunaan aplikasi Google Sheets dalam pembelajaran akuntansi. Sampel yang digunakan adalah sebanyak 143 siswa yang diambil menggunakan teknik sampel jenuh. Metode pengumpulan data adalah menggunakan angket, wawancara, serta dokumentasi yang kemudian dianalisis dengan teknik deskriptif persentase. Hasil penelitian menunjukkan bahwa siswa dapat menerima penggunaan aplikasi Google Sheets sebagai alat bantu mengerjakan tugas akuntansi karena aplikasi ini dinilai mudah dan bermanfaat untuk digunakan. Hal ini telah menyebabkan perolehan hasil belajar siswa menjadi maksimal. Dengan demikian, dapat disimpulkan bahwa penerimaan yang baik terhadap penggunaan suatu alat atau media pembelajaran akan memudahkan dalam pencapaian tujuan pembelajaran.

### ABSTRACT

The implementation of accounting learning activities has now begun to be carried out with the help of applications. The application used should be an application that can be accepted by all students because this will make it easier for students to understand the learning material. This quantitative descriptive research was conducted with the aim of describing the level of student acceptance of the use of the Google Sheets application in accounting learning. The sample used was 143 students taken using the saturated sample technique. Data collection methods were by questionnaires, interviews, and documentation, which were then analyzed using percentage descriptive techniques. The results of the study show that students can accept the use of the Google Sheets application as a tool for doing accounting assignments because the application is considered easy and useful to use. This has led to the acquisition of student learning outcomes to be maximized. Thus, it can be concluded that good acceptance of the use of a learning tool or media will facilitate the achievement of learning objectives.



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## INTRODUCTION

Current learning activities have entered the 21st-century learning era. Several learning competencies that students must possess in the 21st-century learning era consist of the 4C, namely creative, critical thinking, collaborative, and communicative ([Putriani & Hudaidah, 2021](#)). In the 21st-century learning era, all education stakeholders must have good skills in using technology because the implementation of learning activities in the classroom has begun to be carried out using technological tools ([Effendi & Wahidy, 2019](#)). The implementation of technology-assisted learning activities is a learning process that keeps up with the times ([Setiawan, 2017](#)). By technological tools such as smartphones, tablets, laptops, and network-enabled computers internet, you will find various application features of learning aids for teachers. The use of applications as learning aids can facilitate the implementation of learning activities ([Effendi & Wahidy, 2019](#)).

Likewise for accounting learning materials, the use of an application will facilitate the course of the learning process. Applications can be used as a tool to do accounting tasks. The teacher assigns students so that students carry out learning activities ([Mudlofir & Rusydiyah, 2016](#)). Accounting assignments generally tend to take a lot of time because they are done manually, and using an application will make it faster ([Muljanto, 2020](#)). In accounting lessons, for adjusting journal material, one application that can be used by teachers to facilitate the implementation of learning activities is Google Sheets. This application is part of the Google Suite for Education feature which is provided free of charge by Google and has a similar appearance to the Microsoft Excel application. The Google Sheets application can be accessed by users anytime and anywhere via a computer, laptop, smartphone, or tablet. Also, to access the Google Sheets application, you only need a small internet connection. The use of the Google Sheets application can facilitate students in learning accounting, especially in terms of doing assignments, due to the various advantages of the application ([Musyafa, 2014](#)).

In addition, the use of this application to do accounting assignments for adjusting journal material is also in accordance with the characteristics of the adjusting journal material itself. One of the characteristics of adjusting journal material is accrual-based accounting, which means that recognition and accounting records are made every time there is a transaction (even though payment has not been made). With the Google Sheets application, accounting recording activities can be carried out immediately because the columns for recording are already available on the worksheet in the Google Sheets application.

Another characteristic of adjusting journal accounting material, according to ([Rosanaya & Fitrayati, 2021](#)), is that it requires qualified analytical skills, so it is necessary to practice doing assignments repeatedly. Google Sheets allows students to work in groups because there are collaborative features in it. Group work to do accounting assignments is an activity that can hone students' analytical skills. This is because, to complete the task correctly, students must pay attention to their work as well as the work of their group mates. The activity of re-checking the work of friends to ensure that the assignment is correct is something that can train students' analytical skills ([Hafni, 2012](#)).

The implementation of learning activities using technology-based tools is a new thing for students. Therefore, student acceptance of the use of technology in learning activities is important to know because this will affect the level of achievement of learning objectives. The measurement of technology acceptance can be done with a theoretical approach named Technology Acceptance Model (TAM).

The theory of Technology Acceptance Model (TAM) was put forward by Davis in 1989. According to ([Sibarani, 2019](#)), this theory is used to determine what factors can influence someone to choose to use a technology. Based on the theory Technology Acceptance Model, there are two factors as a basis for accepting the use of technology, namely the ease of use factor and the usefulness factor.

Ease of use is a situation where a person can be free from difficulties and can minimize an effort to use something. Someone will use a technology system if that person feels confident that the system is easy to use ([Aripradono, 2021](#)). Some ease of use indicators was used to measure acceptance of the use of the application Google Sheets based on research conducted by [Wibowo,](#)

et al. (2015) including the ease of the system to learn, the ease of the system to use, the ease of the system to interact, and the ease of being skilled in using the system.

Usefulness is a condition that allows for an increase in one's performance when using technology. Pibriana (2020) stated that the use of technology can provide benefits for each user. Thus it can be concluded that usefulness is defined as an increase in one's performance when working using a technology system; work done with the system will be completed faster when compared to done manually. Several indicators of usefulness are used to measure acceptance of the use of the application Google Sheets based on the research by Kraugusteelian (2019), which among others, it covers work being completed faster, productivity will increase by using the system, effectiveness will increase by using the system, work becomes more practical by using the system, as well as the overall benefits provided by the system.

Similar research was conducted by Niqotaini and Budiman (2021), and it was found that TAM and EUCS models can explain what factors influence student acceptance of applications using Google Classroom. Where the perceived usefulness influenced by the perceived ease of use was 52.2%, the attitude toward using is influenced by perceived usefulness at 34.4%, content at 25.4%, accuracy by 11.9%, and format by 18.4%. The contribution of this study is to describe how the level of student acceptance of the use of technology as a learning tool or media is measured from 2 variables, namely convenience, and usefulness. This acceptance is important to analyze because it can facilitate the achievement of learning objectives. Therefore, this research was conducted to know the level of student acceptance of the use of the Google Sheets application which is used as a tool in learning of adjusting journal accounting activities.

## METHOD

This type of research is descriptive research employing a quantitative approach. The purpose of this research is to find out the ease and usefulness of using Google Sheets in accounting assignments using the Technology Acceptance Model (TAM) approach. The population in this study were all 143 students of class XII Social Sciences (henceforth, IPS) at Ambulu State Senior High School, consisting of 4 classes with an average number of students in each of 36 students. A total of 143 students are subjects participated in this study. The basic consideration for selecting class XII as the research population is that accounting material is only for students of class XII IPS. The method used to determine the research location is a purposive area. This means that the researcher deliberately chose a place to be used as a research location with several considerations, including because schools have started implementing technology-based learning activities, the implementation of learning activity models is something new for students, so it is necessary to know how students perceive them and have never previous similar research was carried out. The type of data used in this study consisted of primary data and secondary data.

Main data collection was carried out by distributing questionnaires to students via Google Forms, with a questionnaire grid as shown in Tables 1 and 2. Before being used to collect the data, the questionnaire has been tested statistically, namely validity and reliability tests using the SPSS V23 application. The type of questionnaire used is a closed questionnaire, with five options provided, where each answer option score between 5,4,3,2,1. Table 1 and 2 shows a questionnaire grid table on the ease of use and usefulness of using Google Sheets. To obtain research supporting data, interviews were conducted with eight informants, consisting of 2 students from each class XII IPS Ambulu State High School, to dig deeper regarding the level of ease and usefulness of using the Google Sheets application in accounting learning. In addition, the supporting data in this study were also obtained from documentation activities obtained directly from the school, including school profiles, organizational structure, and a list of economics subject grade XII IPS students at Ambulu State High School. The data were then analyzed using quantitative descriptive analysis techniques. Measurements in this analysis were carried out using percentage descriptive statistics, namely by dividing the total score obtained by the maximum score, and then multiplying it by 100%. Then, to determine the level of ease and benefit of using Google Sheets in accounting assignments, it is based on the categorization shown in Table 3.

**Table 1. Questionnaire grid ease of use Google Sheets**

No	Aspects	Indicator
1	Ease of the system to learn	a) Easy to learn how to operate the application b) Easy to understand application components
2	Ease of the system to use	a) Easy access to the application b) Requires a small internet connection to use the application
3	Ease of system to interact	a) Easy to give feedback against friends work b) Easy to edit friends' answers
4	Ease of being skilled	a) No special training is needed to use application b) The system (application) can be self-studied.

**Table 2. Questionnaire grid usefulness Google Sheets**

No	Aspects	Indicator
1	Work being completed faster	a) Efficiency of processing time b) Tasks completed on time
2	Productivity will increase by using the system	a) Being happy to learn the material b) Enthusiasm in doing the task
3	Effectiveness will increase by using the system	a) Being able to understand the learning material b) An increase in learning outcomes
4	Work becomes more practice by using the system	a) Being able to shorten the steps of carrying out tasks b) Being able to do tasks anywhere
5	The overall benefits provided by the system	a) Can expedite the learning process b) The system as an interesting learning aid

**Table 3. Level categorization of ease and useful**

No	Percentage (%)	Categorization	
1	81 – 100	Very Easy	Very Useful
2	61 - 80	Easy	Useful
3	41 - 60	Quite Easy	Quite Useful
4	21 - 40	Not Easy	Not Useful
5	0 - 20	Very Not Easy	Very Not Useful

Source: Arikunto, 2013 (modified data)

## RESULT

The level of acceptance of the use of technology according to the theory Technology Acceptance Model (TAM) can be measured through 2 constructs, namely ease of use and usefulness.

**Table 4. Ease of use of Google Sheets application**

No.	Indicators	Class				Average (Horizontal)	Category
		XII IPS 1 (%)	XII IPS 2 (%)	XII IPS 3 (%)	XII IPS 4 (%)		
1.	Ease of the system to learn	79	79	81	77	79	Easy
2.	Ease of the system to use	84	84	87	85	85	Very Easy
3.	Ease of system to interact	82	83	84	80	82.3	Very Easy
4.	Ease of being skilled in using the system	69	67	66	65	66.8	Easy
<b>Average (Vertical)</b>		<b>78.5</b>	<b>78.3</b>	<b>79.5</b>	<b>76.8</b>	<b>78.3</b>	<b>Easy</b>

Source: Processed primary data (2023)

**Table 5. Usefulness using Google Sheets application**

No.	Indicators	Class				Average (Horizontal)	Category
		XII IPS 1 (%)	XII IPS 2 (%)	XII IPS 3 (%)	XII IPS 4 (%)		
1.	Work being completed faster	74	80	79	80	78.3	Useful
2.	Productivity will increase by using the system	73	79	77	73	75.5	Useful
3.	Effectiveness will increase by using the system	81	79	84	77	80.3	Useful
4.	Work becomes more practice by using the system	88	87	84	86	86.3	Very Useful
5.	The overall benefits provided by the system	73	79	77	80	77.3	Useful
Average (Vertical)		77.8	80.8	80.2	79.2	79.5	Useful

Source: Processed primary data (2023)

Table 4 and 5 show a description of the results of research conducted by researchers to see how the assessment of class XII IPS students of Ambulu State High School on the ease and usefulness of using the application Google Sheets as a tool for carrying out accounting assignments for adjusting journal material presented as a percentage in Table 4. Overall, the level of usefulness of the Google Sheets application by class XII IPS Ambulu State High School based on several indicators of the usefulness of the use is presented in percentage form as in Table 5.

## DISCUSSION

The results of research conducted by the researchers regarding the ease and usefulness of using the Google Sheets application to work on accounting assignments for adjusting journal material in class XII IPS at Ambulu State Senior High School show that overall, students of class XII IPS Ambulu State Senior High School gave a good assessment. Ease of use of the Google Sheets application consists of 4 indicators, namely the ease of the system to learn, the ease of the system to use, the ease of the system to interact, and the ease of being skilled in using the system. Among the four, the highest percentage is on the "ease of the system to use" indicator. Ease of use is the primary variable that can affect a person's use of a technology system. When someone believes that a technology system is easy to use, that person will use the system repeatedly (Pambudi & Ahmad, 2014). Google Sheets Application includes an application that is easy to use because it is not difficult to access and use this application; it requires small internet connection. According to research conducted by Amelia (2019), a technology that is easy to access can attract more users. Someone tends to reject a technological system if they find it difficult to use. Conversely, someone will accept a technological system if they feel that using the technology is relatively easy and even using it does not require extra effort (Bimaniar, et al., 2018).

In addition, the lowest percentage regarding the ease of use of the application Google Sheets was obtained by the indicator of ease for skilled in the use of the system. Indicators of ease for skilled in using the system (Google Sheets application) are measured through two criteria, namely no special training is needed to be proficient in using the system (Google Sheets application) and the system (Google Sheets application) can be self-studied. According to (Natasia, et al., 2021), a technology system that can be easily understood and learned how to use autonomously is a system that is in great demand by users. Regarding using the Google Sheets application in learning activities for class XII IPS students at Ambulu State High School, most of the XII IPS class students at Ambulu State High School think it was not too easy to become proficient in using the application.

Meanwhile, regarding the usefulness of using the Google Sheets application to work on accounting assignments for adjusting journal material in class XII IPS at Ambulu State High School, which consists of 5 indicators, namely work being completed faster, productivity will increase by using the system, effectiveness will increase by using the system, work becomes more practical by using the system, as well as the overall benefits provided by the system. Of the five indicators, the highest percentage was on "the work becomes more practice by using the system".



Google Sheets Application has caused the accounting task of adjusting journal material more practical because by using the application, students no longer need to make columns, unlike when doing assignments manually. In addition, by using the application, the task can be done anywhere. A system or technology that is practical to use both physically and non-physically has facilitated the work of its users (Listiyono, et al., 2022). If a system or technology has facilitated the work of its users, it can be said that the system or technology has provided benefits (Usman, 2017).

In addition, the lowest percentage regarding the expediency of using the Google Sheets application obtained on "productivity will increase by using the system" indicator. Productivity in learning is said to increase when students become happy to study learning material and enthusiastic about doing assignments. When students are pleased participating in learning activities, they will clearly understand the material delivered by the teacher (Vivianingsih, et al., 2023). The use of Google Sheets application to do accounting assignments for adjusting journal material could not fully increase the productivity of class XII IPS students at Ambulu State High School in learning. A technology system can be said to be beneficial if the system can help users to maximize their performance (Sholikhah & Sutirman, 2020).

In line with this, Chawla and Joshi (2019) stated that if a technology can help users increase productivity at work, they will find it beneficial. On the contrary, if a technology cannot aid users escalates productivity at work, they will consider it unbeneficial. Hanif, et al. (2019) stated that the use of technology, especially in education, is very beneficial. This is because technology can support the implementation of discussion activities, generate collaboration among students, and facilitate student access to subject teachers (Bhat, et al., 2018). Therefore, if the use of a system is regarded to be beneficial, it will impact user's acceptance of the system.

Based on the explanation above, the use of a technology system in learning activities, especially in accounting lessons, can help teachers achieve learning goals if the two constructs of acceptance of technology usage fulfilled by the system. Regarding the use of the Google Sheets application, most of the XII IPS grade students at Ambulu State High School considered that this application was easy and advantageous in adjusting journal accounting learning activities. However, some students argued that the Google Sheets application was not easy to use and was less favourable when used in accounting lessons. Therefore, it is expected that teachers pay more attention to students who feel they have problems using the Google Sheets application in learning activities. This is because student acceptance of the applications is crucial to facilitate and achieve learning objectives.

## CONCLUSION

The final results of this study regarding the analysis of the ease and usefulness of using Google Sheets as a tool for doing accounting assignments for adjusting journal material in class XII IPS students at Ambulu State High School show that the application is easy and useful when used. Google Sheets Application is easy to use because the access to this application can be done through various devices, ranging from smartphones, laptops, computers, and tablets. In addition, the application of Google Sheets can be accessed with a small internet connection. Google Sheets Application is also useful when used as a tool for carrying out accounting tasks because with this application, the steps for carrying out the tasks can be shorter, and with this application, the user can carry out tasks anytime and anywhere. Even so, this research still has limitations, namely that external factors that can influence acceptance of the use of a technology have not been discussed. In this regard, it is suggested for future researchers to develop the research by adding external variables regarding ease of use and the benefits of other uses that can increase user acceptance of the use of new technology systems. This is intended for more varied research results.

## Author contributions

The authors made significant contributions to the study's conception and design. The authors were in charge of data analysis, interpretation, and discussion of results. The final manuscript was read and approved by the authors.

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## Conflict of interest

The authors declare that there is no potential conflict of interest.

## Data availability statement

All data are available from the authors.

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