

THE EFFECT OF USING CHAT GPT ON THE COMPETENCE OF ACCOUNTING STUDENTS

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ABSTRACT

Introduction: This study aims to analyze the effect of using ChatGPT on the competence of accounting students at Hasanuddin University. In the era of rapid information technology revolution, ChatGPT as one of the artificial intelligence (AI) technologies has become a significant tool in the world of education, including accounting education.

Methods: This study uses a quantitative approach with an explanatory method to test the hypothesis about the relationship between the use of ChatGPT and student competence. Data were collected through distributing online questionnaires to Master of Accounting students and analyzed using the SmartPLS application.

Results: The results showed that the use of ChatGPT has a positive and significant influence on improving student competence, especially in the aspects of analysis and understanding of accounting concepts. The findings support the importance of integrating AI technology in learning to improve the effectiveness of accounting education, although it also highlights the need for wise use to prevent potential negative impacts, such as reduced critical thinking skills. This research provides an empirical contribution to the development of learning strategies that integrate technology with academic ethical values.

INTRODUCTION

The rapidly growing information technology revolution has brought significant changes in the world of education, especially in learning methods in higher education. These changes are not only technical in nature but also touch fundamental aspects of the learning process, such as how lecturers deliver material and how students develop their competencies. One of the milestones of this major change is the emergence of artificial intelligence (AI) technology, which has created a new paradigm in the Education ecosystem, opening up opportunities for a more adaptive, personalized, and data-driven approach to learning (Manurung et al., 2023).

Artificial intelligence (AI) has brought significant changes in various fields, including higher education. Among the various AI technologies developed, ChatGPT is one of the innovations that has received the most global attention in the world of education. ChatGPT, developed by OpenAI, is an AI-based generative language model capable of performing various tasks such as providing information, answering complex questions, summarizing reading material, and assisting in various academic tasks. This flexibility makes it a multifunctional tool that can be adapted to various learning contexts, both formal and informal (Saraswati et al., 2023). In the context of accounting education, the use of ChatGPT has the potential to improve students' competence in understanding complex concepts, solving case studies, and developing analytical and critical thinking skills (Rizaldi et al., 2024).

ChatGPT has become a commonly used tool by students because of its sophistication and ability to help increase productivity (Manurung et al., 2023). The phenomenon of using ChatGPT among accounting students is growing. Students utilize this technology for various purposes, such as searching for academic references, understanding accounting standards, preparing financial statements, and completing data analysis-based tasks. In recent years, the integration of artificial intelligence in accounting learning has created significant changes in students' study methods (Kasma et al., 2025). With ChatGPT, students can access information faster, reduce reference search time, and get instant answers to complex questions related to accounting theory and practice.

Accounting students' competencies cover a wide range of aspects, including analytical ability, numerical skills, and understanding of accounting principles, as well as soft skills such as communication and problem-solving. In this context, disproportionate use of technology can hinder the development of critical thinking skills, as well as blur the line between self-directed learning and digital plagiarism. Therefore, it is important to place the use of ChatGPT in the right science (Rizaldi et al., 2024). Nonetheless, the presence of ChatGPT is not entirely a threat. On the contrary, if used wisely, this technology can be an effective learning tool. ChatGPT can help students understand difficult concepts, provide additional explanations instantly, and support the efficiency of learning time. In the long run, it can encourage independent learning, foster motivation, and strengthen student competence in various aspects (Abbas, 2023).

Research by (Sakti et al., 2024) shows that the use of ChatGPT has a positive impact on student understanding in managerial accounting courses. However, this study has not touched on in-depth quantitative measurements of the dimensions of student competence holistically, including the attitudinal and mental aspects that are equally important in the world of professional accounting.

However, behind the benefits, some challenges need to be considered. Some students tend to use ChatGPT excessively, replacing their efforts in analyzing a problem independently (Tyaningsih et al., 2024). This has the potential to reduce critical thinking skills and in-depth understanding of accounting concepts. In addition, there are still concerns about the accuracy of answers provided by ChatGPT, especially in explaining evolving accounting standards. Therefore, it is important to understand how students use ChatGPT in their academic activities and whether the use of this technology has a positive or negative impact on their academic competence. (Ivana & Soherman, 2024) Underlined that generative AI is both a threat and an opportunity in accounting education. However, their study has not clearly separated the effects of using ChatGPT on cognitive abilities such as analytical thinking, and non-cognitive abilities such as learning motivation and academic ethics. This leaves room for further research with a more empirical approach.

A number of studies have discussed the impact of using AI in education. For example, research (Huda & Hidayati, 2023) showed that the use of AI has a significant influence of 61.4% on student learning motivation. Meanwhile, research by (Hadiq & Ramadhan, 2023) The results showed significant improvement in students' digital literacy skills after engaging them in an Investigation-Based Learning Model with ChatGPT support. In accounting, research (Nainggolan, 2024) The results showed that the use of AI in accounting systems brought significant changes in improving efficiency, accuracy, transparency, productivity, quality of financial statements, fraud detection, and predictive analysis in the accounting process.

In the study (Duong & Suppaseteree, 2024), the results revealed significant improvement students in English speaking skills after using an AI voice chatbot to practice speaking English. The findings provide a positive way for teachers to integrate AI voice chatbots into their lesson plans for teaching and learning activities. In line with the study (Mahapatra, 2024) found a significant positive impact of ChatGPT on students' academic writing

skills. This study reinforces and advances the theory of feedback as a dialogic tool and ChatGPT as a reliable writing tool, and has practical implications.

A gap in the literature shows that few studies have quantitatively examined the relationship between the intensity of ChatGPT use and students' overall level of competency mastery. In fact, with the increasing adoption of this technology, statistical analysis is important to understand its real impact on learning. Existing studies so far tend to be descriptive or literature review-based, not yet at the stage of concrete hypothesis testing. Competency variables such as analytical thinking, effective communication, and conceptual understanding of accounting are rarely tested through valid and reliable quantitative instruments.

This research is designed to provide empirical contributions by using a quantitative approach to measure the effect of using ChatGPT on accounting student competencies. Through the data collected, the results of this study are expected to be used as a basis for developing technology-based learning policies. This policy should emphasize the balance between technological innovation and academic ethical values in order to be implemented sustainably.

Based on this background, this study aims to analyze the effect of using ChatGPT on the competence of accounting students. The results of this study are expected to provide insight for educational institutions in designing more effective learning strategies by optimally utilizing AI technology.

LITERATURE REVIEW

ChatGPT as a Learning Tool

Technology is a field of science related to machines or devices created to help solve problems or tasks in everyday life. Technology serves to facilitate various aspects of human life. The development of technology has brought changes in the way of looking at education, by utilizing technological tools as a means of delivering learning materials (Syahri et al., 2024). Artificial intelligence (AI) is the result of technological innovation in the form of applications that can be applied in the field of education. The use of AI, especially ChatGPT in teaching and learning activities in higher education, not only expands students' scientific knowledge academically, but also increases their awareness of the latest technological developments (Kaharuddin et al., 2024).

ChatGPT, also known as Generative Pre-Trained Transformer (GPT), is an artificial intelligence (AI)-based chatbot capable of interacting with and assisting users in completing various tasks. This technology facilitates the learning process by providing a more interactive and personalized experience, and supports various activities such as answering questions, conducting research, and translating languages (Syahri et al., 2024). According to (Hsu & Silalahi, 2024), the academic assistance provided by ChatGPT includes support in completing assignments, conducting research, and improving the learning process. In addition, users also reported utilizing ChatGPT to fulfill curiosity, solve problems, and perform language translation.

Accounting Student Competencies

The development of artificial intelligence (AI) technology, especially ChatGPT, has brought significant changes in the world of education, including in the field of accounting. The International Accounting Education Standards Board (IAESB) has established a framework of competencies that professional accountants must possess, including technical knowledge, professional skills, ethical values, and professional attitudes (IAESB, 2019). (Lawson et al., 2013) emphasized the importance of developing technical and non-technical competencies in a balanced manner in the accounting curriculum.

Based on research (Dewi et al., 2025) In the context of technological behavior theory, variables such as trust and habit are proven to have a positive effect on the intention and behavior of using ChatGPT by accounting students. Several variables influence the level of adoption of this technology, which indirectly impacts student competence.

The Influence of Technology on the Learning Process

The rapid development of technology encourages progress in the field of education. The presence of artificial intelligence has enriched the variety of learning methods, fulfilling the current generation's desire to use technology as a learning tool and facilitate access to information (Huda & Hidayati, 2023). The use of ChatGPT has

a positive impact on the way students seek feedback, the way they engage with feedback, and the way they make improvements in their academic writing (Mahapatra, 2024).

In line with research (Hsu & Silalahi, 2024), the integration of generative artificial intelligence such as ChatGPT in higher education institutions has great potential to transform the learning process by providing a more personalized learning experience tailored to the needs of individual students. This technology is able to support various aspects of education, ranging from improving material understanding, providing more interactive explanations, to facilitating the development of students' critical and analytical thinking skills.

RESEARCH METHODS

This research was conducted using a quantitative approach which aims to show whether there is a relationship between the variables studied. The research method used is the explanatory method, which is research that collects data to test hypotheses or answer questions about causal relationships.

The research was conducted at Hasanuddin University with a sample of Master of Accounting students at the Faculty of Economics and Business, Hasanuddin University. The data source used in this research is primary data, which is obtained through distributing online questionnaires using the Google Form platform. Variable measurement is carried out using a five-point Likert scale, and the collected data will be processed and analyzed using the SmartPLS (Partial Least Square) application.

In its analysis, this study uses a measurement model (outer model) to show the relationship between each indicator and the underlying latent variable. The measurement model was evaluated to assess its validity and reliability. The validity test is used to measure the extent to which the survey instrument is able to accurately represent the research subject, while the reliability test aims to assess the consistency and reliability of participants' responses to questionnaire items that represent certain variables. Assessment of measurement models that use reflective indicators includes validity tests, reliability tests, Structural Model Evaluation and Hypothesis Tests.

RESULT AND ANALYSIS

Data analysis of 67 incoming questionnaires was carried out using the Partial Least Square Structural Equation Modeling (PLS-SEM) approach through the SmartPLS application can be seen in the structural model diagram:

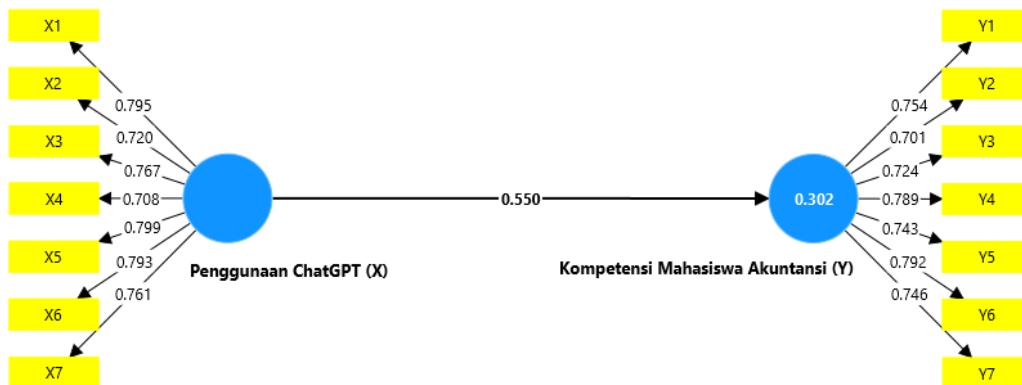


Figure 1. Hypothesis Testing
Source: Primary Data Processed with SmartPLS (2025)

Validity Test

Evaluation of the measurement model (outer model) shows that all indicators have an outer loading value above the 0.70 threshold, which indicates good convergent validity. The outer loading value of each indicator is shown in Table 1 below:

Table 1
Outer Loading of Each Indicator

Indicator	Construct	Outer Loading
X1.1	X	0.795
X1.2	X	0.720
X2.1	X	0.767
X2.2	X	0.708
X3.2	X	0.799
X4.2	X	0.793
X5.2	X	0.761
Y1.1	Y	0.754
Y1.2	Y	0.701
Y2.1	Y	0.724
Y2.2	Y	0.789
Y3.1	Y	0.743
Y3.2	Y	0.792
Y4.1	Y	0.746

Source: Primary Data Processed with SmartPLS (2025)

Reliability Test

Construct reliability is evaluated using three main indicators, namely Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Cronbach's Alpha measures internal consistency between items within a construct, with an ideal value above 0.70. In the results of this study, the Cronbach's Alpha value for construct X is 0.882 and construct Y is 0.875, which indicates that all items in the construct are consistent in measuring the latent variable.

Furthermore, the Composite Reliability value is used to overcome the limitations of Cronbach's Alpha which is too conservative. A CR value exceeding 0.70 is considered to indicate good internal consistency. The CR values for constructs X and Y are 0.907 and 0.900 respectively, which means that both constructs are highly reliable.

In addition, the Average Variance Extracted (AVE) value is used to assess how much indicator variance can be explained by latent constructs compared to the variance caused by measurement error. A good AVE must be more than 0.50. The results show that construct X has an AVE of 0.584 and construct Y of 0.563, which means that more than 50% of the indicator variance is explained by the latent construct it represents.

Table 2
Construct Reliability Test

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE
X	0.882	0.907	0.584
Y	0.875	0.900	0.563

Source: Primary Data Processed with SmartPLS (2025)

The results of this reliability test provide evidence that all constructs in this model have a high level of reliability and can be trusted for further analysis.

Structural Model Evaluation and Hypothesis Testing

Evaluation of the structural model (inner model) is done by looking at the R-square value as shown in Table 3 below:

Table 3
R-square of Variable Constructs

Variables	R-square	Adjusted R-square
Accounting Student Ability (Y)	0.302	0.291

Source: Primary Data Processed with SmartPLS (2025)

In this study, the R-square value for the endogenous construct (Y) is 0.302, which means that the exogenous construct is able to explain 30.2% of the variance of student competence. This value falls into the moderate category in the context of social research.

Hypothesis testing is carried out based on the path coefficient value, t-statistic, and p-value, as shown in Table 4 below:

Table 4
Hypothesis Test Results

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
ChatGPT Usage -> Accounting Student Competency	0.550	0.558	0.169	3.253	0.001

Source: Primary Data Processed with SmartPLS (2025)

The results of the analysis show that the use of ChatGPT has a positive and significant effect on student competence with a p value <0.05. This indicates that the integration of AI technology in the learning process can improve students' academic competence, especially in accounting.

Thus, the research hypothesis is supported by empirical data, strengthening the argument that the use of ChatGPT has a positive effect on the competence of accounting students.

This study has several limitations that need to be considered, namely that the research was only conducted on Master of Accounting students at Hasanuddin University, so the results may not necessarily be generalized to a wider population. In addition, the R-square value of 0.302 indicates that there are still other variables that have an effect but have not been included in the model. This limitation can be an opportunity for further research to expand the context, methods, and variables studied.

CONCLUSION

This study reveals that the use of ChatGPT has a positive and significant influence on the competence master of accounting students at Hasanuddin University. By using this artificial intelligence technology, students can improve their understanding of complex accounting concepts, as well as develop analytical and problem-solving skills. Although the use of ChatGPT can increase learning productivity and speed up information retrieval, this study also highlights the importance of using technology wisely to avoid the potential reduction of critical thinking skills and the risk of plagiarism. The results support the importance of integrating AI technology in learning, which can improve the quality of accounting education, while maintaining academic ethical values. In addition, this study opens up opportunities for further research by expanding the variables and context of technology use in higher education.

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