

The Implementation of AI-Based Technology (Gemini AI) in English Classroom at Senior High School: Tam Model

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ABSTRACT

The Industry 5.0 era is a new way of addressing social and educational issues based on artificial intelligence (AI) technology. Problems in the learning process, such as changes in the educational landscape, student motivation, teacher workload, and so on, can be solved by AI, which makes the learning process more effective. This study explores how AI-based technology can be applied in language classrooms. Researcher will investigate how AI-based technology, especially Gemini AI, is applied in language classrooms and measure its acceptance by language teachers and students through the Technology Acceptance Model (TAM), exploring the challenges faced. This study focuses on three language classes and one teacher at SMAN 1 Ungaran. This school is selected for several reasons, the first is its reputation as a transformative and accredited school, having a language study program, and integrating technology into the learning process. It measures its acceptance by 61 students and one language teacher through the Technology Acceptance Model (TAM) at SMAN 1 Ungaran. This study uses a qualitative design with a case study approach to explore phenomena in language classrooms that apply AI-based technology. The results of this study found that the learning process was integrated with AI from the planning stage to the end of the English learning process. Other findings also illustrate that usefulness is the main factor in the use of AI by students, while teachers consider that there needs to be strong control over the use of AI in the learning space. In addition, its implementation requires the maximum utilization of school facilities to produce more great outputs and learning experiences.

Keywords: AI-based technology; english language; perceived ease of use; perceived usefulness; TAM model

INTRODUCTION

Current technology is developing rapidly and is used by many institutions worldwide, including education. Technology, in general, has changed the way people work; using technology as a support tool can improve activities and efficiency (Batanero et al., 2021). In the education sector, as stated by Cao et al (2022), technology facilitates learning activities so students can follow and adapt to learning faster. The ease of access and the various technological features make people more oriented in technological intelligence, thus causing a transition in the era of Industry 5.0 as a new perspective to solve social problems. Technology's massive development and use in the Industrial Revolution 5.0 era created Society 5.0, which requires the readiness of all stakeholders, including the academic community. The 5.0 revolution era is the development of the 4.0 revolution era through mobile and web-based technology (Hikmat, 2022). Quoting from the study of Taj' and Jhanjhi (2022), Industrial Revolution 5.0 is the

development of several previous industrial revolutions, starting from the first industrial revolution (Industry 1.0), which came with the emergence of the steam revolution, then the Industrial revolution 2.0 (Industry 2.0) which has implemented mechanical machines to enable mass production. The third industrial revolution (Industry 3.0) emerged when production could be integrated through automated computer processes.

Era 5.0 impacts the educational sector for several reasons. As Saxena et al. (2020), the personalized Education 5.0 system positively affects the learning process. It allows the improvement of students' varied abilities and skills to prepare them for a competitive future (Saxena et al., 2020). Student skills highlighted in the Education 5.0 era are leadership, communication, curiosity, critical thinking, and creativity. As a supporting facility, some of the features created in education 5.0 include the Internet of Things (IoT), Big Data (BD), robotics, Cloud Computing (CC), and 3D Printing. One part of the technology that is growing rapidly is Artificial Intelligence (AI) Melnyk (2019). Although technology has many benefits in the educational sector there is still a possibility that teachers still need to be fully prepared to integrate the use of technology in the learning process, supported by research by Picton (2019), which explains that most teachers support technology as a tool in the learning process, but teachers need training. Problems in the learning process such as the changing educational landscape, student motivation, teacher workload, etc., can be solved with AI that makes the learning process more effective. Integrating A.I. into the learning process so students can incorporate it into their lives will enable students to adapt to their environment faster and solve problems more efficiently. Touretzky et al. (2019) and Kong and Abelson (2022) argue that providing AI-based teaching will help students become informed citizens and prepare students for AI-based careers. Ouyang and Jiao (2021) identified three paradigms of AI in the learning process: A.I. as a learning guidance system, empowering students as the primary controllers in learning, and AI as a tool to support student collaboration. In AI-assisted learning, AI can capture, analyze, and collect student data from various sources in real-time (Kim et al., 2021).

The existence of technology, especially AI, creates a paradigm among academics and learners. Davis (1989) developed a theory related to technology acceptance called the Technology Acceptance Model (TAM). T.A.M. is a framework that broadly identifies users' perceptions of technology. Davis (1986, 1989) introduced constructs in the original TAM in the form of perceived usefulness (PU), perceived ease of use (PEOU), attitude toward use (ATU), and behavioral intention (BI) to use. Among these constructs, Perceived ease of use is an individual's belief in a system that makes work easier without expending much effort. As a result, ease of use significantly affects usability, so good job performance is influenced by a system that is easy to use. Based on the previous issues, the researcher will investigate how AI-based technology, especially Gemini AI, is applied in language classrooms and measure its acceptance by language teachers and students through the Technology Acceptance Model (TAM), exploring the challenges faced. This study focuses on three language classes and one teacher at SMAN 1 Ungaran. This school is selected for several reasons, the first is its reputation as a transformative and accredited school, having a language study program, and integrating technology into the learning process.

METHODOLOGY

This study applied a qualitative design to explore the phenomena in language classes focused on implementing AI-based technology. This qualitative design focused on explaining the phenomenon and providing a clear description based on the observations and data collection results from the participants' perspectives. In qualitative methods, several approaches, including the case study, need to be determined to make the research more comprehensive.

According to Creswell (2018), a case study is an activity of exploring a case through in-depth and detailed data collection involving several sources of information, such as observation, audiovisual material, documents, reports, and interviews, to report descriptively on the findings of the case raised in the research. Qualitative data is analyzed following three stages proposed by Miles and Huberman (1994): reducing data, presenting data, and drawing and verifying conclusions. This study observes the AI-based learning process, explores teachers' and students' acceptance of AI-based learning, and identifies obstacles in learning to use artificial intelligence (AI)-based technology in English classes in high schools.

RESULT AND DISCUSSION

In this subsection, the researchers explain their findings related to the learning process, the perspectives of teachers and students, and the challenges faced in implementing artificial intelligence AI-Based Technology in the English classroom. This findings based on research questions, explore used some theory and previous study as guide.

The Implementation of AI-Based Technology in English classroom at senior high school

Based on the observation on July, 2025 teacher use lesson plans as a reference for teaching. These lesson plans are created using AI. Through casual conversations, it was explained that AI-assisted teaching modules can save time and make things easier and faster, although teacher still need to rewrite to other media such as Google Docs or Canva to make it look better when printing is needed. Copilot and Gemini AI can create comprehensive components in preparing lesson plans, such as core competencies, basic competencies, outcome indicators, learning objectives, teaching materials, learning media, and final assessments.

Based on observation findings show that the planning of English language learning implementation has almost entirely utilized AI, although the output from AI needs to be edited to suit the needs and conditions of the classroom. The following subchapter explains how teachers use an AI-based chatbot called Gemini AI to assist in designing lesson plans for language classes. The researcher entered classes XII-10 and XII-12 Language in July 2025. The learning process began with the teacher greeting the students. The teacher greeted the students, and the students cheerfully reacted. After the greeting, the teacher continued asking the students about their condition. Additionally, no prayers were observed to begin the learning session. After delivering the greeting, attendance in the classroom. The following finding during the observation was that the teacher's story and trigger served as an opening leading to the assignment process for the students. Through direct instructions, the teacher asked the students to take out their notebooks and gadgets. The students appeared cheerful as they took out their gadgets from their lockers and bags. At this stage, the teacher continued the instructions to open the AI chatbot, recommending that the students use Gemini AI or Copilot. Observations noted that most students used Gemini AI as their tool. In the following step, students are directed to find the definition, generic structure, and narrative text examples, then write them in their notebooks. After about 10 minutes of writing, the teacher confirmed the progress of their activities and asked if they were finished. The teacher asked and requested students to present their findings. Several students responded to each question posed by the teacher, and one question was directed at a student to answer.

After completing the individual assignments, the teacher instructed the students to work with their classmates. The teacher assigned the students to collaboratively search for narrative texts on Google or AI, analyze the text structure, and write their findings in their notebooks. Students are given 15 minutes to complete the assignment in groups. Upon hearing the relatively short time allotted, the students quickly respond by moving to begin the task. During

this process, the teacher monitors several desks from the front to the middle of the classroom to ensure students can effectively complete the task.

At the same time, the teacher asked several students to share their findings. Some students had not finished, while two groups had finished and explained their findings. During the presentation of the students' work, they remained enthusiastic about completing this group assignment. However, the researcher heard some students in the back rows urging each other to find stories as material. Some students chose to be passive and follow their peers, as well as students who debated to determine the structure of the story they had obtained. During the closing stage, the teacher briefly reviewed the basic understanding of narrative text material, highlighting key points regarding the definition, text structure, and linguistic structure. Additionally, the teacher provided instructions for completing homework assignments for those who had not finished their individual or group tasks, as these would serve as material for the upcoming mid-semester assessment. Finally, the teacher motivates the students to remain enthusiastic and appreciative for their participation in the lesson.

AI is a tool that can help students hone their writing skills. Observation findings show that AI can produce responses based on prompts written by students, and AI can provide explanations and examples of narrative texts requested by students. Based on findings, teacher and students have benefited significantly from AI. Teacher can create lesson plans using AI, which can be processed in just a few seconds, providing complete and comprehensive results. Students can quickly obtain answers through AI based on the prompts they wrote. Additionally, during observations, AI enables faster discussions between students and teacher because students quickly obtain materials from AI, allowing them to respond to teacher promptly as well. In the learning process, it was found that AI was used as a source of information for teacher and students. AI provides information to generate lesson plans and materials for students. In addition, AI can also be adjusted to suit the prompts given so that students and teacher get the answers they expect.

Students' Perception of AI-based technology in English classroom at senior high school viewed from TAM

From the questionnaire shows that 66 respondents contributed in this research, with 30 (45.5%) female and 36 (54.5%) male respondents, involved 66 students from classes XII-10 and XII-12 and one English teacher. Regarding the statistical interpretation of testing using SEM-PLS, the results of testing the path coefficient of Perceived Ease of Use on Attitude Toward Use were 0.098 with a positive direction. Regarding the interpretation of statistical testing using SEM-PLS, the results of testing the path coefficient of Perceived Usefulness on Attitude Toward Use were 0.749 and a t-statistic value of 8.44. These statistical test results show the high value of the usefulness factor that influences AI users' intentions. Regarding the interpretation of statistical testing using SEM-PLS, the results of testing the path coefficient of Attitude Toward Use on Actual System Use have a coefficient value of 0.661 with a t-statistic value of 6.953.

Teacher's Perception of AI-based technology in English classroom at senior high school viewed from TAM

Based on the interviews, language teachers have a positive perspective on using AI in their classes. They believe that these tools make the learning process more effective and efficient. For example, teachers experienced how the Gemini AI Chatbot can instantly produce lesson plans. On the other hand, they have some concerns. First, teachers believe several factors influence how well AI functions in practice. Second, despite its advanced nature, teachers feel that AI's ease of use varies. Just like any software on a computer or phone, each application has its own complexity, and not all AI is easy and straightforward. Fortunately, they found that

the chatbot-based AI they tested was easy to operate. Age was also emphasized as a major factor regarding ease of use; younger teachers are more likely to adapt quickly to technological advancements like AI than older ones. Overall, the interviews showed that teachers felt happy and enjoyed using AI for the learning process. This satisfaction arose because they felt they had a creative and interactive assistant supporting them. This could be seen in how AI helped them create lesson plans that combined AI with conventional learning. Indeed, traditional methods remain effective and efficient if teachers are creative, dedicated, and choose the right learning approach. AI is simply a tool that supports and enriches the learning process, not an absolute requirement for achieving educational success.

Challenges and opportunities of implementing AI- in English classroom at senior high school

Research conducted at SMAN 1 Ungaran showed positive results regarding readiness for digital learning. The internet access the school provides consists of Wi-Fi installed at several spots in each corridor. The number of Wi-Fi spots installed in the school corridors makes it easy for students and staff to access the internet. In addition, students and teacher have devices that support technology-based learning using AI. From the observations, the gadgets owned by students are Android and iOS devices that can access the internet.

In the learning process, all learning materials and references are obtained through AI, indicating the firm reliance on AI. On the other hand, teacher tried to take measures to prevent student addiction by combining conventional learning methods such as discussions and presentations. Teacher assigned collaborative tasks to students and encouraged them to discuss without AI assistance, leading to some groups engaging in debates. Additionally, teacher require both individual and collaborative presentations. The purpose of conventional learning spaces is for teacher to continue honing students' critical and analytical thinking skills independently, without relying on AI. Through casual discussions, teacher are not fully utilizing AI and the internet in all materials. Teacher prioritizes conventional learning to hone students' reading and speaking skills. The selection of conventional methods has a more significant impact than using AI technology. During the reading and speaking learning process, teacher can observe and evaluate students in real time, which is crucial for monitoring their progress. The results of these observations indicate a deep understanding of the role of teacher in providing contextual and professional instruction.

The results of the observation show that there is still active interaction even though the class implements AI. Students show enthusiasm in communicating, not only with the teacher but also with other classmates, although some students are passive and quiet. Throughout the learning process, students are asked questions by the teacher, which encourages communication. Another moment of communication occurred when students were assigned collaborative tasks with their peers, resulting in the majority of students engaging in discussions and even debates. During the presentation session, students were also fully engaged in the process, although not all students participated; at least the majority were active in answering questions. During the 45-minute learning session, teacher can complete a series of activities, including student assignments and closing activities. In this session, teacher do not conduct formal and systematic assessments, but with this kind of learning, teacher reduce the time from 70 minutes of main activities to 35 minutes. Efficiency is achieved because students can access and obtain learning resources from AI instantly. Learning efficiency is reflected in both classes; however, the challenge remains in the assessment process, which is less than optimal, systematic, and formal. This is a significant challenge because the assessment process is a crucial component for measuring learning outcomes.

DISCUSSION

This section describes and relates the findings to relevant theories and previous studies. The discussion in this subchapter is divided into four parts. The first part discusses the implementation of AI-based technology in language classes. The second part discusses students' acceptance of AI-based technology viewed from the TAM model. The third part discusses teachers' acceptance of AI-based technology viewed from the TAM model. The last part discusses the challenges of implementing AI-based technology in language classes.

The Implementation of AI-Based Technology in English classroom at senior high school

The use of Gemini AI by teacher in preparing the teaching and learning process through creating lesson plans confirms that lesson planning is crucial to ensure comprehensive and practical learning. According to Le et al. (2022), preparing the teaching and learning process will affect the quality of student learning outcomes. Besides Lee et al. (2022), lesson plans as teaching references are vital for systematic learning. Teacher who creates lesson plans for the learning process are committed to providing high-quality and systematic learning. The lesson plans generated by Gemini AI align with Uluysal and Kurt (2022) which state that lesson plans should at least include learning objectives, learning activities, and assessment. The observation results show that although the lesson plan components are created automatically by AI, teacher still edit the lesson plans to make them appropriate for the classroom conditions and teacher's expectations.

The learning stages, conducting several main stages in the learning process, namely the opening and closing of the lesson. The next stage is for the teacher to convey the learning plan that will be carried out, including the material to be studied, the material's content, and the material's objectives in a concise and general manner. In addition, the teacher also explains that the learning process will use AI as a learning aid. Through the learning process in the opening phase, there is no prayer at the beginning of the lesson.

In summary, the teacher begins the class with greetings, checking students' attendance, providing material, stating learning objectives, and introducing learning media. This finding aligns with the findings of Chiu et al. (2023) and Rachmawati et al. (2025), who state that the important role of AI in education is as a facility for pursuit, learning, and assistance in administrative processes. Chaudhry and Kazim (2022) argue that teachers have a crucial role in shaping, facilitating, and taking responsibility for AI-based learning. After approximately 10 minutes of writing, the teacher confirmed the students' activities and asked if they were finished. Once completed, the teacher asked several questions about the students' findings. This process is one example of presenting the results of individual student assignments. In this subsection, AI is a learning medium that can help students hone their writing skills. Observation findings show that AI can produce answers according to the prompts written by students, and AI can provide explanations and examples of narrative texts requested by students. From this, students can learn to follow the patterns and word structures generated by AI and write them down in their respective notebooks.

The process demonstrates AI's ability to generate structured and systematic ideas and content, allowing students to learn patterns and word structures. This capability supports the findings of Liu et al. (2021), who state that the use of AI in the learning process can positively impact students' writing skills. The output generated by Gemini AI is related to AI in providing students with information about narrative texts through prompts written by students, which matches the findings by Kessler (2020) and Rahimi and Fathi (2022), where AI is a practical solution for writing assignments in the classroom. It also reinforces Yan (2023), who described improvements in students' writing performance through AI chatbots. Teacher and students

benefit from Gemini AI's quick responses in the learning process; teacher can receive feedback on lesson plans, while students receive feedback on narrative text material quickly. Teacher obtain comprehensive and complete lesson plans based on written prompts, although teacher must edit the lesson plans to suit the classroom situation. These findings are consistent with Dai et al. (2023), and Katz et al. (2023), which describes AI as a tool that can generate feedback to support the learning process quickly and in real time. The feedback experienced by teacher and students in the use of AI is also in line with the findings of Porter and Grippa (2020), who state that AI is a technology that provides feedback features for students.

Students' Perception of AI-based technology in English classroom at senior high school viewed from TAM

Regarding the statistical interpretation of testing using SEM-PLS, the results of testing the path coefficient of Perceived Ease of Use on Attitude Toward Use were 0.098 with a positive direction. However, this number did not reach significance because it was related to a t-statistic value of less than 1.96. This number is related to the criteria of Hair et al. (2012), which explains that the cause-and-effect relationship between variables can be accepted if the t-test/t-statistic value is greater than 1.96. Although the statistical test results show a positive direction in the Perceived Ease of Use pathway toward Attitude Toward Use, indicating that ease-of-use tends to increase positive user attitudes, the statistical insignificance shows that ease of use of AI is not a major influencing factor among students and teachers. Next, the results of testing Perceived Ease of Use on Attitude Toward Use are similar to studies conducted by Teo (2011); Wimbo and Wahyuni (2020); Nathania et al. (2021), which explain that Perceived Ease of Use is no longer a factor in technology acceptance by users. The findings of this study and previous findings indicate a theoretical implication that other variables are needed to test technology acceptance by users.

Regarding the interpretation of statistical testing using SEM-PLS, the results of testing the path coefficient of Perceived Usefulness on Attitude Toward Use were 0.749 and a t-statistic value of 8.44. These statistical test results show the high value of the usefulness factor that influences AI users' intentions. This analysis is based on the theory described by Hair et al. (2012), which sets a limit of 1.96 on the t-statistic value to indicate significance in factor variables. The high significance of the t-statistic value of 8.44 shows that the relationship between Perceived Usefulness and Attitude Toward Use is extreme in the practical concept of AI-Based Technology. Furthermore, these findings are also related to the findings of several researchers, including Chan and Hu (2023), and Alshurafat (2023), which states that perceived benefits are the strongest factor influencing attitudes toward AI-based learning. In this study, the perceived benefits include increased teaching efficiency, ease of automatic assessment, and the provision of more varied materials. These results reinforce the view that users will more easily accept AI technology that provides real added value.

Regarding the interpretation of statistical testing using SEM-PLS, the results of testing the path coefficient of Attitude Toward Use on Actual System Use have a coefficient value of 0.661 with a t-statistic value of 6.953. This t-statistic value indicates a validity value that exceeds the minimum limit of 1.96 described by Hair et al. (2012). According to Hair et al. (2012), there is a minimum limit to indicate a positive result between variables of 1.96. The coefficient value of 0.661 indicates that Attitude Toward Use greatly influences Actual System Use by users. Previous studies that explain this include Alalwan et al. (2017); Zawacki-Richter et al. (2019); Al-Rahmi et al. (2021); and Hoesni et al. (2020), which state that a positive attitude is the main predictor of actual usage behavior. In the context of this study, teachers and students who have a positive attitude toward AI tend to use it more often to support the teaching and learning process.

Teacher's Perception of AI-based technology English classroom at senior high school viewed from technology acceptance model

Based on open-ended questions, teacher believe that learning using AI can accelerate and improve efficiency in learning. This aligns with Pokrivcakova (2022), who argues that AI can support quicker and more effective learning. From the teacher's perspective, using AI helps plan and design learning, such as when preparing lesson plans. In line with Baichuan (2024), generative AI can help humans produce ideas and structures, improving learning efficiency. Teacher also explained that not all AIs are as easy to use as AI chatbots, in line with Vekatesh and Davish (1996), stated that the use of a particular system depends on the effort expended. In secondary education, the research by Orim et al. (2025) aligns with the findings of this study, where teacher perceive the acceptance of a technology based on perceived ease of use. Based on the interviews, teacher consider using AI enjoyable, as described by Baxi et al. (2024), who state that a person's technology acceptance is based on several factors, including enjoyment. However, teacher also explained that AI can be "distracting" or have a negative impact, so adjustments to its use are needed. described. Appropriate conditioning of AI can have a positive and effective impact on learning. As a senior teacher, the teacher keeps up the value of professionalism. In actual use, the teacher believes that learning can still be carried out without AI, so the teacher only uses AI when needed. The teachers' perspective on the limitations of AI integration aligns with the stance of Kalaidos University of Applied Sciences, which supports the utilization of AI while emphasizing the need for regulatory boundaries (Akefe et al., 2025). Educators believe that while conventional teaching methods remain highly valuable, AI plays a crucial role in enhancing students' understanding through continuous learning.

The Challenges and opportunities in implementing AI-Based Technology in English classroom at senior high school

The findings of observations conducted in grades XII-10 and XII-12 at SMA N 1 UNGARAN show that the infrastructure is suitable for supporting AI-based learning. Students owning gadgets capable of accessing the internet reflect their readiness for technological advances. Additionally, the internet access provided by the school and accessible to school staff indicates the school's willingness to provide connectivity for digital learning. The importance of internet access is closely related to the ability of AI technology used by school members in the learning process, as revealed by Gaete et al. (2023), that the main factor in processing big data on the internet depends on the availability of access and the speed of the connection. As found in this study, a learning system that considers the control of technology use in the learning process aligns with the approach proposed by Lin and Chang (2020). Lin and Chang emphasize supporting AI-based learning to create active and independent learning, but also consider the need for human interaction in some contexts. Additionally, debates and discussions among students during collaborative assignments retain pedagogical value that AI cannot replace. Communication patterns during student discussions and the ability to present assignment results in language learning processes that integrate AI as a learning medium demonstrate the role of AI proposed by Umar and Javaid (2025). Umar argues that AI technology can encourage student interaction through problem-solving, critical thinking, and communication skills. The application of AI in creating lesson plans and in the learning process demonstrates AI's influence on efficiency and effectiveness. Teacher can create lesson plans quickly, even though they must go through editing and transferring documents to print-ready media, proving AI's effective and efficient capabilities in producing results. The effectiveness and efficiency of the learning process in the observation align with research conducted by Aakula et al. (2024), which states that today's AI transformation is more effective, efficient, and professional, thus positively impacting its users.

CONCLUSION AND RECOMMENDATION

Based on the results of observations and discussions, English language learning, particularly in classes XII-10 and XII-12 at SMAN 1 UNGARAN, integrates AI Chatbot as a tool to assist in preparation for the learning process. Several activities use AI in English language planning and learning processes, such as lesson planning, providing learning materials, and as a learning tool for students. In general, the use of AI in English language planning and learning processes has been observed from the beginning of the research to the end of the classroom learning. There are several AI-related activities in the planning and implementing English language learning, such as creating lesson plans, providing learning materials, and serving as a learning medium for students. In general, AI chatbots have been adopted from the beginning of the study until the end of the language class. During the English language learning process, the observations did not indicate any technical issues disrupting the learning process. Additionally, the school provides free internet access, and students have proper gadgets. The availability of well-equipped facilities creates a supportive learning environment for technology-based learning models. However, non-technical issues were observed during the study, such as activity gaps between students in the back and front rows. The research findings show that students in the back rows of two English classes engaged in activities not part of the learning process, such as keeping quiet, not focusing, chatting with classmates, and even using their gadgets for non-educational purposes.

Based on the results of the research that has been conducted, several suggestions, such as language classes implementing AI-Based technology are suggested to use computer labs to explore AI more than AI-chatbots and get the best learning resources. In addition, computer lab use can prepare students to be familiar with school infrastructure to face computer-based tests at the end of the learning period. Although the school has Wi-Fi access points in every corridor, it is recommended that one router/Wi-Fi access point be provided for each classroom. This recommendation comes as an anticipation in case one of the routers/Wi-Fi access points malfunctions. Then, During discussions and group activities, a mixing of dominant and passive students is needed. This is recommended to ensure communication among students is balanced. For future researchers, combining other variables and indicators that can strengthen the factors of acceptance of AI-based technology in language classes is recommended. Future researchers may conduct more in-depth research on the relationship between Perceived Ease of Use and Attitude Toward Use, as this study resulted in insignificant findings.

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