

Task-Technology Fit and ChatGPT Utilization: Factors Influencing Academic Performance among University Students

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ABSTRACT

Nowadays, ChatGPT has quickly gained popularity among the generative AI tools used in the educational setting. This ease of access and flexibility have become the reasons for the growing popularity of ChatGPT in higher education. Nevertheless, ChatGPT's ability to help with students' academic activities may be determined not only by its technical features but also by the characteristics of the tasks performed and the individual users. The Task Technology Fit (TTF) framework is used in this study since ChatGPT is being utilized by university students as a technology that helps them perform different academic tasks. This study examines the relationships among task characteristics, technology characteristics, individual characteristics, TTF, ChatGPT utilization, and students' academic performance. A total of 354 university students from UiTM Segamat Campus were involved in this study. The findings indicate that task characteristics, individual characteristics, task-technology fit, and ChatGPT utilization significantly influence students' academic performance. However, technology characteristics do not significantly influence academic performance. This implies that the efficiency of ChatGPT depends not only on the technology itself but also on how suitable the academic assignments are, the individual qualities of the students, and the skills they must use with it. Consequently, students' proficiency in using ChatGPT effectively and synchronizing its functionalities with their educational requirements may improve academic performance.

Keywords: ChatGPT utilization, Students' Academic Performance, Task-technology fit

INTRODUCTION

Artificial Intelligence (AI) is an area of science and engineering that involves the creation of machines/systems capable of performing tasks that involve human-like intellect through various methods of computation. Artificial intelligence mimics the process of reasoning, learning, and decision-making (Rojas, 2024; Gupta et al., 2025). According to Mehrfar et al. (2024), AI is revolutionizing the sector of higher education in terms of personalised learning and automation of tasks performed at the university level, as well as catering to various needs of students to enhance the quality, efficiency and accessibility of higher education systems. Among other technologies involved in AI, generative artificial intelligence has become increasingly popular due to its ability to produce human-like text and explanations, provide suggestions, and help users in completing different tasks. This technology has opened opportunities for universities as well as students for improvement in the process of learning and teaching. However, increased adoption of AI technologies has prompted questions about the dependence of students on the AI technologies, as well as the usefulness and willingness of students to continue utilizing them in an academic context.

Currently, ChatGPT, a product of OpenAI, has quickly gained popularity among the generative AI tools used in the educational setting. According to Stănescu (2024), the tool provides students with quick feedback, customized lessons, and round-the-clock availability that helps learners receive individualized explanations whenever necessary. ChatGPT is often used by students to summarize knowledge, write and edit papers, solve problems, develop study strategies, and learn coding, which makes this technology a versatile solution for improving educational outcomes. ChatGPT also accelerates the process of material access and paper writing

for the students who do not have anyone to help them in their studies (Maheshwari et al., 2024). This ease of access and flexibility have become the reasons for the growing popularity of ChatGPT in higher education. Nevertheless, ChatGPT's ability to help in students' academic activities may be determined not only by its technical features but also by the characteristics of the tasks performed and the characteristics of individual users.

In this study, Task Technology Fit (TTF) framework is used since the ChatGPT is being utilized by university students as a technology that helps them perform different academic tasks. TTF is described as a vital construct within information systems theory and the concept that highlights the significance of fitting the capability of technology to the needs of the task to foster performance, satisfaction and adoption (Jeyaraj, 2022). It can be stated that TTF framework is a proper foundation for the examination of the impact of the characteristics of the task, characteristics of the technology, and characteristics of the individual on the fit of ChatGPT to the academic tasks of the students. Thus, this fit will affect the use of ChatGPT, which will have an impact on students' academic performance. Additionally, ChatGPT utilization is another significant factor that needs to be considered in terms of its possible relationship with the students' academic achievements. ChatGPT can be used by students for various purposes, including idea generation, comprehending complex concepts, writing improvement, academic material summarization, and assignment help. However, the intensity of use by students varies. Hence, it is crucial to study the application of ChatGPT along with task-technology fit.

Currently, a lot of recent research investigates the topics of adoption, acceptance, and the intention to use ChatGPT. While previous research has emphasized the possible advantages associated with ChatGPT as a learning tool, the relationship between ChatGPT use and the academic achievement of learners still requires further investigation. There remains a need to further examine the factors associated with students' academic performance in the context of ChatGPT utilization. Specifically, by analyzing aspects such as task characteristics, technology characteristics, individual characteristics, task–technology fit, and ChatGPT usage, a more comprehensive insight into the factors contributing to students' academic performance can be gained. It is essential because, in such a way, it will be easier to determine which factors have a significant effect on academic performance. Thus, TTF analysis can be used to examine the relationships among task characteristics, technology characteristics, individual characteristics, and students' academic performance in the context of ChatGPT utilization. This study will help universities develop appropriate AI integration strategies. At the same time, it can help educators understand students' experiences and expectations and support the responsible and effective use of ChatGPT in higher education.

LITERATURE REVIEW

The ChatGPT system is described as an advanced conversational AI model that can generate text and conduct conversations, write programs, and perform domain-specific tasks (Wu et al., 2023). Currently, most university students use ChatGPT in various educational contexts. Klimova et al. (2025) noted that ChatGPT is a versatile educational tool used by university students for tasks such as summarizing, generating study materials, writing assistance, brainstorming, and feedback delivery, based on several sources with high credibility. In addition to providing personalized feedback and suggestions to help students comprehend the material and enhance the process of studying, ChatGPT delivers support for students who do not have access to tutors or study groups (Arista et al., 2023). Although this technology is very advanced, it can deliver incorrect or even misleading information due to its lack of capability to understand nuances in some contexts.

Various studies have been conducted on the usage and adoption of ChatGPT; however, these studies concentrated on technology acceptance, adoption, perceived usefulness, perceived ease of use, and behavioural intention (Almoslamani, 2025; Taheri et al., 2025; Xie et al., 2026). These studies generally determine the factors that influence users' willingness to try or accept a new AI-based educational tool. However, much of the existing research focuses on whether students are willing to adopt ChatGPT rather than examining factors associated with students' academic performance in the context of ChatGPT utilization. There is a need to further examine the role of task characteristics, technology characteristics, individual characteristics, task-technology fit, and ChatGPT utilization in relation to students' academic performance. Generally, the effectiveness of ChatGPT is not universal. It depends on the interplay between the task at hand, the technology's features, and the user's characteristics. Optimizing these factors through user training, task

alignment, and supportive learning environments may enhance the positive impact of ChatGPT on students' learning and academic performance.

Task characteristics refer to the nature, complexity, and requirements of the work to be performed, such as writing, reading, summarising, problem solving, and understanding concepts (Spies et al., 2020). The nature and requirements of academic tasks may influence how students use ChatGPT to support their learning activities. Previous studies have indicated that ChatGPT can assist learners in understanding difficult concepts, organising their tasks, and developing creative thoughts, resulting in improved performance (Klimova et al., 2025). Similarly, Colombari et al. (2025) found that high-quality and reliable information from ChatGPT improved learning outcomes and student satisfaction. This finding was consistent with Alarbi et al. (2024), who showed a positive relationship between task characteristics of ChatGPT, such as information quality and learning facilitation, and students' academic performance, including learning efficiency and self-efficacy. These findings suggest that the nature and requirements of academic tasks are important factors associated with students' academic performance when ChatGPT is used for educational purposes.

Technology characteristics represent the features, functionalities, and capabilities of ChatGPT that can support academic tasks (Spies et al., 2020). The technological capabilities of ChatGPT may influence students' ability to obtain relevant and useful information for completing their academic activities. Aziz et al. (2025) found that high-quality information and robust system performance from ChatGPT were consistently linked to improved student satisfaction and academic achievement. Students benefit when the technology delivers reliable, relevant, and well-structured information. In addition, features in ChatGPT, such as interactive responses and gamification, positively influence learning outcomes, as students become more motivated and involved (Muthuswamy & Absamatov, 2025). These findings indicate that the features, functionalities, and capabilities of ChatGPT may support students' learning activities and contribute to their academic performance.

Furthermore, individual characteristics refer to the knowledge, skills, and experience of students and their capability to use ChatGPT efficiently. These characteristics may influence how effectively students use ChatGPT to support their academic activities. Previous studies have also shown that individual characteristics play a substantial role in influencing students' academic performance. These characteristics include personality traits, motivation, self-efficacy, cognitive abilities, and learning styles. Personal characteristics such as conscientiousness, openness, and agreeableness are highly related to academic success (Chen et al., 2025; Andersen et al., 2020). Conscientiousness is a significant predictor of performance. According to Espinosa et al. (2025), motivation, positive academic expectations, and high levels of self-efficacy also contribute to enhanced academic success. Besides, students' cognitive abilities and academic self-concept can also significantly influence the process of academic success. Students with a positive academic self-concept are likely to demonstrate a high level of motivation to perform academic activities (Erdem et al., 2026). Therefore, students' individual characteristics may influence their ability to use ChatGPT effectively and may consequently be associated with their academic performance.

Ayyash et al. (2024) stated that TTF refers to a model that looks at how well the capability of technology meets the task needs. The key here is the match between the task, technological capability, and user requirement. If the match is strong, then technology use will result in improved performance and satisfaction. Research by Ong et al. (2025) on the TTF model has shown that the perception of task fit can predict the usage of AI and learning results. If students think that ChatGPT is suitable for their academic tasks, they will be more willing to use this application and achieve better results. TTF correlates with the responsible use of generative AI and usefulness (Wang et al., 2026). In cases where the capabilities of ChatGPT match students' learning activities, learning becomes more efficient, productive, and engaging. Task fit, digital literacy, and ethics play a major role in adoption and use of the technology, thus making TTF a useful theory to explore ChatGPT's impact on education (Al-Mamary et al., 2025). These findings suggest that a higher level of task-technology fit may contribute to more effective learning activities and improved students' academic performance.

ChatGPT utilization involves the various uses, implementation, or application of the ChatGPT AI application to meet certain objectives. Students have been using the ChatGPT AI application widely for learning and educational purposes, for ideas, preparing assignments, and writing. Its flexibility makes the AI tool beneficial in learning. While there are many advantages associated with the ChatGPT AI application, concerns about the overuse and academic integrity of ChatGPT are voiced both by students and educators (Klimova & de Campos,

2024). The effective use of ChatGPT requires the digital literacy skills of students and guidance from the faculty. Therefore, the way students utilize ChatGPT for academic purposes may be associated with their learning activities and academic performance. From the earlier studies, the relationships between task characteristics, technology characteristics, individual characteristics, task-technology fit, ChatGPT utilization, and academic performance require further investigation.

Based on the literature reviewed, task characteristics, technology characteristics, individual characteristics, task-technology fit, and ChatGPT utilization are considered relevant factors in explaining students' academic performance. Therefore, this study proposes the following hypotheses:

H1: Task characteristics significantly influence students' academic performance.

H2: Technology characteristics significantly influence students' academic performance.

H3: Individual characteristics significantly influence students' academic performance.

H4: Task-technology fit significantly influences students' academic performance.

H5: ChatGPT utilization significantly influences students' academic performance.

METHODOLOGY

Study Design and Sampling Technique

This study employed a cross-sectional research design, with data collected over a period of four weeks. The study was conducted at Universiti Teknologi MARA (UiTM), Segamat Campus, with the target population comprising all university students. A total of 354 respondents participated in the study. Stratified sampling was employed to improve the reliability of the survey results by ensuring that important subgroups were adequately represented. This sampling technique enhances the representativeness of the sample and helps minimize sampling bias.

In this study, the population was categorized according to the faculties within the university, namely the Faculty of Accountancy, the Faculty of Business and Management, the Faculty of Islamic Contemporary Studies, the Faculty of Computer and Mathematical Sciences, the Faculty of Information Management, and the Faculty of Language Studies. The sample size for each faculty was determined using the following formula:

$$n_i = \frac{N_i}{N} \times n$$

Where N refers to the population size and n refers to the sample size.

The sample size allocated to each faculty was as follows: 142 respondents were selected from the Faculty of Accountancy, 106 respondents from the Faculty of Business and Management, 35 respondents from the Faculty of Islamic Contemporary Studies, 35 respondents from the Faculty of Computer and Mathematical Sciences, 25 respondents from the Faculty of Information Management, and 11 respondents from the Faculty of Language Studies.

Data Collection Method and Research Instrument

An online questionnaire was used as the data collection instrument and was distributed to the respondents through Google Forms. This method was selected because it is fast, cost-effective, and easy to distribute. In this study, the questionnaire was adapted from Al-Mamary et al. (2025). The questionnaire was divided into two parts, namely Part A and Part B, which covered the demographic profile and the factors influencing ChatGPT utilisation and its impact on students' academic performance, respectively. Part A consisted of several demographic items, including gender, education level, and faculty. Meanwhile, Part B consisted of six variables, namely task characteristics, technology characteristics, individual characteristics, task-technology fit, ChatGPT utilisation, and the impact of ChatGPT utilisation on students' academic performance. A five-

point Likert scale was used in Part B, where 1 represented “strongly disagree” and 5 represented “strongly agree”. Table 1 presents the number of measurement items for each variable.

Table 1: Number of Measurement Items

Variables	Number of Items
Task characteristics	3
Technology characteristics	4
Individual characteristics	3
Task-technology fit	3
Utilization of ChatGPT	3
Impacts on student’s academic performance	6

In this study, the dependent variable refers to impacts on students' academic performance, and there are four independent variables, which are task characteristics, technology characteristics, individual characteristics, task-technology fit, and utilization of ChatGPT. Figure 1 shows the research framework for this study.

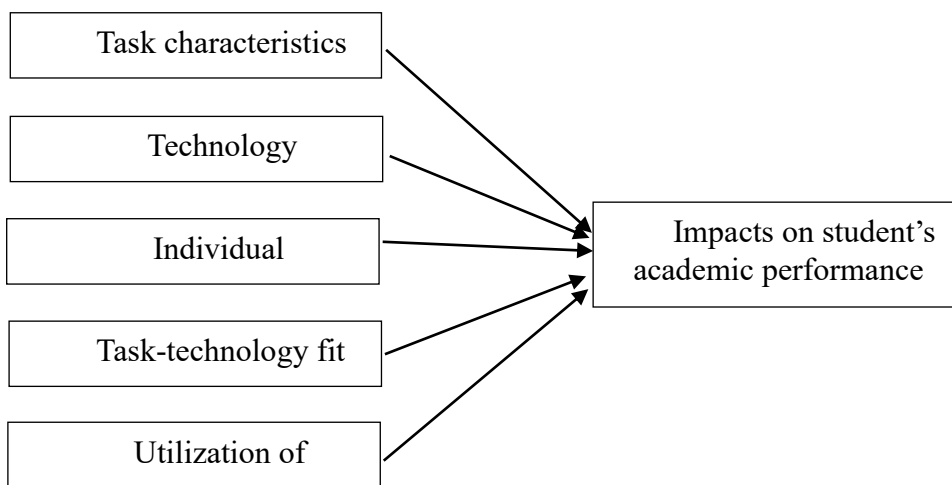


Figure 1: Research Framework

Statistical Methods

In this study, several statistical methods were employed to analyse the data. Descriptive statistics were used to summarize the characteristics of the respondents' demographic profiles. Prior to conducting the Multiple Linear Regression analysis, the assumptions of the regression model were assessed. The normality of the residuals was examined using skewness and kurtosis to determine whether the residuals were approximately normally distributed. Subsequently, Pearson correlation analysis was conducted to assess the strength and direction of the linear relationships between the continuous variables. Finally, Multiple Linear Regression was employed to identify the significant independent variables associated with students' academic performance in the context of ChatGPT utilization.

RESULTS AND FINDINGS

Reliability Test

A reliability test was conducted to determine whether the respondents responded consistently to all the

questions. According to Taber (2018), higher reliability is indicated by values closer to 1.0. A Cronbach's Alpha value of 0.7 or above is generally considered acceptable. Based on Table 2, the internal consistency of the items for each variable in this study was above 0.8, indicating that the questionnaire was reliable and consistent for further analysis.

Table 2: Reliability Test

Variables	Number of Items	Cronbach's Alpha Values
Task characteristics	3	0.875
Technology characteristics	4	0.875
Individual characteristics	3	0.878
Task-technology fit	3	0.899
Utilization of ChatGPT	3	0.896
Impacts on student's academic performance	6	0.938

Descriptive Statistics

Table 3 presents the demographic profile of the 354 respondents involved in this study. In terms of gender, most respondents were female, with 214 respondents (60.5%), while 140 respondents (39.5%) were male. In terms of education level, most respondents were degree students, comprising 262 respondents (74.0%), whereas 92 respondents (26.0%) were diploma students. Regarding faculty, the highest number of respondents was from the Faculty of Accountancy, with 142 respondents (40.1%), followed by the Faculty of Business and Management, with 106 respondents (29.9%). The Faculty of Islamic Contemporary Studies and the Faculty of Computer and Mathematical Sciences each contributed 35 respondents (9.9%). Meanwhile, 25 respondents (7.1%) were from the Faculty of Information Management, and 11 respondents (3.1%) were from the Faculty of Language Studies.

Table 3: Demographic Profile (n = 354 respondents)

Variables	Frequency	Percentage (%)
Gender		
Male	140	39.5
Female	214	60.5
Education Level		
Diploma	92	26
Degree	262	74
Faculty		
Faculty of Accountancy	142	40.1
Faculty of Business and Management	106	29.9
Faculty of Islamic Contemporary Studies	35	9.9
Faculty of Computer and Mathematical Sciences	35	9.9
Faculty of Information Management	25	7.1
Faculty of Language Studies	11	3.1
Total	354	100

Normality Test

According to Hair et al. (2010), for the data to be normally distributed, the values for skewness and kurtosis should be within the -2 to 2 range. Based on the values in Table 4, all variables have skewness and kurtosis values within the commonly accepted range of ± 2 , indicating that the data are approximately normally distributed. The skewness values range from -0.448 to -0.223, while the kurtosis values range from -0.384 to 0.142. Therefore, there is no serious deviation from normality for any of the variables. These results suggest that the data meet the normality assumption and are suitable for further statistical analysis.

Table 4: Normality Test

Variables	Skewness	Kurtosis
Task characteristics	-0.448	-0.095
Technology characteristics	-0.246	-0.262
Individual characteristics	-0.232	-0.338

Task-technology fit	-0.336	0.142
Utilization of ChatGPT	-0.353	-0.183
Impacts on student's academic performance	-0.223	-0.384

The Relationship between ChatGPT-Related Factors and Students' Academic Performance

Table 5 presents the Pearson correlation analysis between the independent variables and students' academic performance. The results indicate that all independent variables have a positive and statistically significant relationship with students' academic performance.

Specifically, task characteristics have a strong positive correlation with students' academic performance ($r = 0.747$), followed by technology characteristics ($r = 0.778$). Individual characteristics show a stronger positive relationship ($r = 0.828$), while task-technology fit also demonstrates a strong positive correlation ($r = 0.827$). The utilization of ChatGPT has a strong positive relationship with students' academic performance ($r = 0.819$). These findings indicate that higher levels of the independent variables are associated with higher levels of students' academic performance.

Table 5: Pearson Correlation Analysis between Independent Variables and Students' Academic Performance

Variables	Impacts on student's academic performance	Task characteristics	Technology characteristics	Individual characteristics	Task-technology fit	Utilization of ChatGPT
Impacts on student's academic performance	1	0.747**	0.778**	0.828**	0.827**	0.819**
Task characteristics		1	0.746**	0.732**	0.702**	0.697**
Technology characteristics			1	0.794**	0.779**	0.774**
Individual characteristics				1	0.794**	0.779**
Task-technology fit					1	0.806**
Utilization of ChatGPT						1

****Correlation is significant at the 0.01 level (2-tailed).**

The Significant ChatGPT-Related Factors Associated with Students' Academic Performance

Based on Table 6, the regression model is statistically significant, as indicated by the p-value being less than 0.05 ($F = 279.403$). This finding indicates that students' academic performance can be significantly associated with at least one of the independent variables included in the regression model.

Table 6: Analysis of Variance (ANOVA) Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	183.052	5	36.61	279.403	0
Residual	45.599	348	0.131		
Total	228.651	353			

Based on Table 7, the value of the adjusted R-squared is 0.798, indicating that 79.8% of the variation in students' academic performance can be explained by the independent variables included in the regression

model. The remaining 20.2% of the variation is explained by other factors not included in the model. Meanwhile, the value of R is 0.895, indicating a strong positive relationship between the predicted and observed values of students' academic performance.

Table 7: Model Summary

	Values
R	0.895
R ²	0.801
Adjusted R ²	0.798

The results in Table 8 show that task characteristics (t = 3.802), individual characteristics (t = 5.904), task–technology fit (t = 5.595), and ChatGPT utilization (t = 5.438) are significant predictors of students' academic performance, as all corresponding p-values are less than 0.05. In contrast, technology characteristics (t = 1.069) are not a significant predictor of students' academic performance, as the p-value is greater than 0.05. Therefore, four independent variables, namely task characteristics, individual characteristics, task–technology fit, and ChatGPT utilization, significantly predict students' academic performance in the context of ChatGPT utilization. The final multiple linear regression model is expressed as follows:

$$\text{Students' Academic Performance} = 0.119 + 0.153 (\text{Task characteristics}) + 0.268 (\text{Individual characteristics}) + 0.254 (\text{Task-technology fit}) + 0.242 (\text{Utilization of ChatGPT})$$

Table 8: Coefficient of Regression

	B	t	p-value
Constant	0.119	1.139	0.255
Task characteristics	0.153	3.802	0.000
Technology characteristics	0.051	1.069	0.286
Individual characteristics	0.268	5.904	0.000
Task-technology fit	0.254	5.595	0.000
Utilization of ChatGPT	0.242	5.438	0.000

**** Dependent variable: Students' academic performance**

DISCUSSIONS

The findings revealed that four variables, namely task characteristics, individual characteristics, task–technology fit, and ChatGPT utilization, have an impact on students' academic performance. The results were consistent with previous studies. Task characteristics, such as type, complexity, dependence, engagement, and personalization, play an important role in determining how effectively students use ChatGPT to enhance their academic performance (Dominguez et al., 2026; Oca & Rodrigo, 2025). If a task is designed in a manner that allows ChatGPT to perform well, it may improve the learning process. However, poor task design could lead to lower productivity or even academic dishonesty. There is significant evidence (Muthuswamy & Absamatov, 2025; Gutierrez-Aguilar et al., 2024) that individual characteristics play a substantial role in shaping how students use ChatGPT and, consequently, their academic performance. Individual characteristics, including technological capabilities, self-efficacy, learning attitudes, creativity, language proficiency, psychological readiness, demographics, and motivation, play an important role in determining how students utilize ChatGPT and their academic outcomes. These attributes interact with students' perceptions, engagement, and resource availability when using ChatGPT.

On the other hand, TTF significantly influence students' academic performance in the context of ChatGPT utilization. A strong TTF indicates that the technology helps students in accomplishing their academic tasks with greater efficiency. It was supported by Ong et al. (2025) claimed that optimal TTF facilitates outstanding academic achievement by allowing proficient utilisation of ChatGPT for scholarly activities. TTF helps in being productive and efficient in learning, along with managing academic activities. At the same time, it improves engagement and satisfaction, ensuring academic success in the long term (Al-Mamary, 2025;

Alyoussef, 2021). Furthermore, the use of ChatGPT tends to have a positive effect on the academic performance of students if the technology is used for educational purposes. There have been many studies that have proved that utilization of ChatGPT could be for educational purposes, such as brainstorming, ideation, summarization of content, and task feedback. Students feel they understand complex concepts better and perceive it easier to gather information. It may help them perform better academically (Stojanov et al., 2026; Klimova et al., 2025). However, the effectiveness of ChatGPT will be affected by the way it is used by students, with possible risks of misuse.

In contrast, this study found that technology characteristics have no significant effect on the academic performance of the learners when used through the ChatGPT tool. The presence and functioning of ChatGPT does not necessarily mean that the learner's performance will improve. Even if the ChatGPT offers rapid replies, access to data, and information creation features, the performance of the students can be dependent on their effective usage of these features to finish their academic tasks. The other possibility is that students who use ChatGPT on a regular basis may have got used to doing this for their academic activities. In this case, it may be said that technological characteristics alone may not suffice to result in differences in academic performance; rather, students may consider more about whether the technological abilities of ChatGPT fit their academic tasks. This view is in line with the theory of task-technology fit that stresses on matching task requirements with technological abilities (Ayyash et al., 2024). Furthermore, Ong et al. (2025) demonstrated that task fit can predict AI usage and academic outcomes. Thus, this non-significant result may suggest that the abilities of ChatGPT need to be properly aligned with students' academic tasks to positively affect their academic performance.

The academic performance of the students was evaluated by means of self-reported responses, which may introduce response bias since there may be differences between how students perceive their academic achievements and how they perform academically. Nevertheless, self-reporting was employed in this research since collecting objective data on academic achievement might be associated with issues related to access, privacy, and confidentiality.

CONCLUSIONS AND RECOMMENDATIONS

It can be concluded that the results suggest that the variables of task characteristics, individual characteristics, task-technology fit, and the use of ChatGPT have a significant impact on students' academic performance. On the other hand, technology characteristics do not have any significant impact on the academic performance of students. This shows that ChatGPT's success depends on its tech and how well it fits students' academic tasks and traits. Educators need to help students learn how to make use of ChatGPT in accordance with the tasks assigned to them. The students need to be able to distinguish what kind of tasks can be done with the help of ChatGPT, including idea generation, summarization of information, and writing improvement. Besides that, educators should ensure that students develop AI literacy and use ChatGPT responsibly by understanding its proper use, plagiarism, academic honesty, and when ChatGPT can and cannot be used in academic work. Future studies should include respondents drawn from different universities, institutions, programs, and geographic areas to gain extensive knowledge of the use of ChatGPT and how it relates to their academic performance. The other variables such as digital literacy, motivation to learn, critical thinking abilities, and experience with artificial intelligence should be added to help understand the academic performance of students with respect to ChatGPT. Additionally, employ both objective and subjective indicators of academic achievement, such as examination scores and grade point averages, in addition to self-reporting, to evaluate students' academic achievement objectively, in addition to self-reporting, to objectively evaluate students' academic achievement.

Ethical Considerations

Using ChatGPT for any academic activities is ethical. The students should not use ChatGPT extensively and should not submit the ChatGPT content as their own. Additionally, the ChatGPT information should be checked as well because there is a chance that the content may have inaccurate data. Consequently, the students should use ChatGPT as an additional tool in the learning process but according to the academic rules of the university.

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