Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

Investigating the Acceptability of Students on Generative AI Tools: A Correlation Analysis among Selected Tertiary Schools in Metro Manila, Philippines

Angelo C. Arguson[1*], Rhonnel S. Paculanan[2], Marvin P. Mabborang[3]

[1]Computer Science, FEU Institute of Technology, Manila, Philippines.*
[2]School of Information Technology, Arellano University, Manila, Philippines.
[3]Administrative Services, DepEd Manila, Philippines.

Email: [2]rhonnel.paculanan@arellano.edu.ph, [3]marvin.mabborang@deped.gov.ph
Corresponding Email: [1]acarguson@feutech.edu.ph*

Received: 29 March 2024 **Accepted:** 17 June 2024 **Published:** 01 August 2024

Abstract: ***Artificial Intelligence has become the emphasis on the needs of future society. The digital era of education demands critical thinking skills, digital literacy and fundamental abilities to navigate and verify information. This development can be supported by the ability of AI chatbots to provide large volume of information in an interactive and efficient way. The goal of this paper is to examine the interest of the chosen BSCS and BSIT students in Metro Manila in utilizing three generative AI tools: Copilot, ChatGPT, and Gemini in the accomplishment of their academic requirements. A one-shot case study was carried out by the authors on six (6) selected universities in Metro Manila. A voluntary response sampling approach was employed to gather the participants in this study. The Slovin's formula was used to calculate statistically enough samples from the population. This study involved 209 CS and IT students, 157 or 75.12% of whom were males and 52 or 24.88% of whom were females, 45 or 21.53% were BSCS students and 164 or 78.47% were BSIT students. The data was initially recorded in a comma-separated value file. The extended TAM instrument was facilitated online using Google Forms by the participants which then imported into SPSS for data understanding and statistical treatment. It was found that out of eighteen (18) observed inter-item relationships, only six (6) or 33.33% were statistically significant and had considerable impacts. Moreover, SN → AT has the highest coefficient value of 0.788 followed by the factor PU → AT of 0.732 indicating their influence on generative AI tools attitude of use (AT). Lastly, PE → AT was shown having the lowest among relationships with 0.533 coefficient value. The study concluded that computer tertiary students in Metro Manila were generally amenable to the idea of introducing generative AI techniques into their academic responsibilities.***

Keywords: Correlation, Generative AI, Academic Requirements, Acceptability Study.

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

1. INTRODUCTION

Artificial intelligence (AI) has paved way in the ever-increasing digitization of our society [1]. AI nowadays can generate messages almost identical from text prepared by humans [2]. Automation technologies can perform specific tasks in place of humans. Nevertheless, they may either supersede humans of these specific jobs or complement them to soar their productivity [3][4][5]. A system known as "generative AI" is capable of producing text, images, audio, and synthetic data, among other kinds of material. Generative AI models combine numerous AI algorithms to represent and process the expected content [6]. ChatGPT is characterized by its sophisticated capability to accomplish complex tasks [7]. The said AI tool can generate text, converse with its user, write code, and do so much more [8]. Microsoft has decided to utilize its efforts in its own Bing search engine, which now includes generative AI, known as Copilot. It can generate phrases for conversation, write essays, create letters, summarize information, write source code, and respond to difficult questions. [9]. Gemini, originally known as Bard, is the outcome of extensive collaboration work by teams across Google. It can understand and incorporate many sorts of information, such as text, code, voice, image, and video [10].

Concerns about academic integrity, originality, and the educational value of assignments are frequently the driving forces behind AI technologies. Students are reportedly being investigated for embracing artificial intelligence (AI) in their academic assignments, according to a January 2023 GMA Integrated News article. However, Dr. Jalao also says that while AI use in schools is not inappropriate, it should be avoided when done improperly [11].

Many experts have raised their worries about the likely negative influence of using ChatGPT on undergraduates. According to [12][13][14], there is a possibility that it could hinder students' learning and success. Additionally, [15] suggests that it may also compromise academic integrity. The lack of academic integrity, as noted by [16], could in turn damage the credibility of higher education institutions [17] and reduce student motivation [18].

The paper of [19] investigated the acceptance of selected Senior high school (SHS) teachers on generative AI tools for their work. Their study revealed that the respondents positively agreed to abreast the technology to improve their productivity in the workplace.

The authors of this paper used the instrument and hypotheses from the study of Arguson et al. [19] and Park [21] to investigate acceptability of tertiary students on the generative AI tools in their academic requirements.

This paper was written with this research gap in mind. The paper specifically intended to respond to the following questions:

1. Collegiate students' behavioral intention to use generative AI tools is affected by their attitude, perceived usefulness, perceived ease of use, self-efficacy, subjective norm, and system accessibility.
2. Tertiary students' generative AI tool attitude is affected by their perceived usefulness, perceived ease of use, self-efficacy, subjective norm, and system accessibility.
3. College students' perceived usefulness of generative AI tools is affected by their perceived ease of use, self-efficacy, subjective norm, and system accessibility.

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

4. Tertiary students' perceived ease of use of generative AI tools is affected by their self-efficacy, subjective norm, and system accessibility.

In this paper, the authors examined the acceptability of Generative AI tools in meeting the academic requirements of computer science and information technology students in Metro Manila, Philippines and understand their perceptions for supporting them.

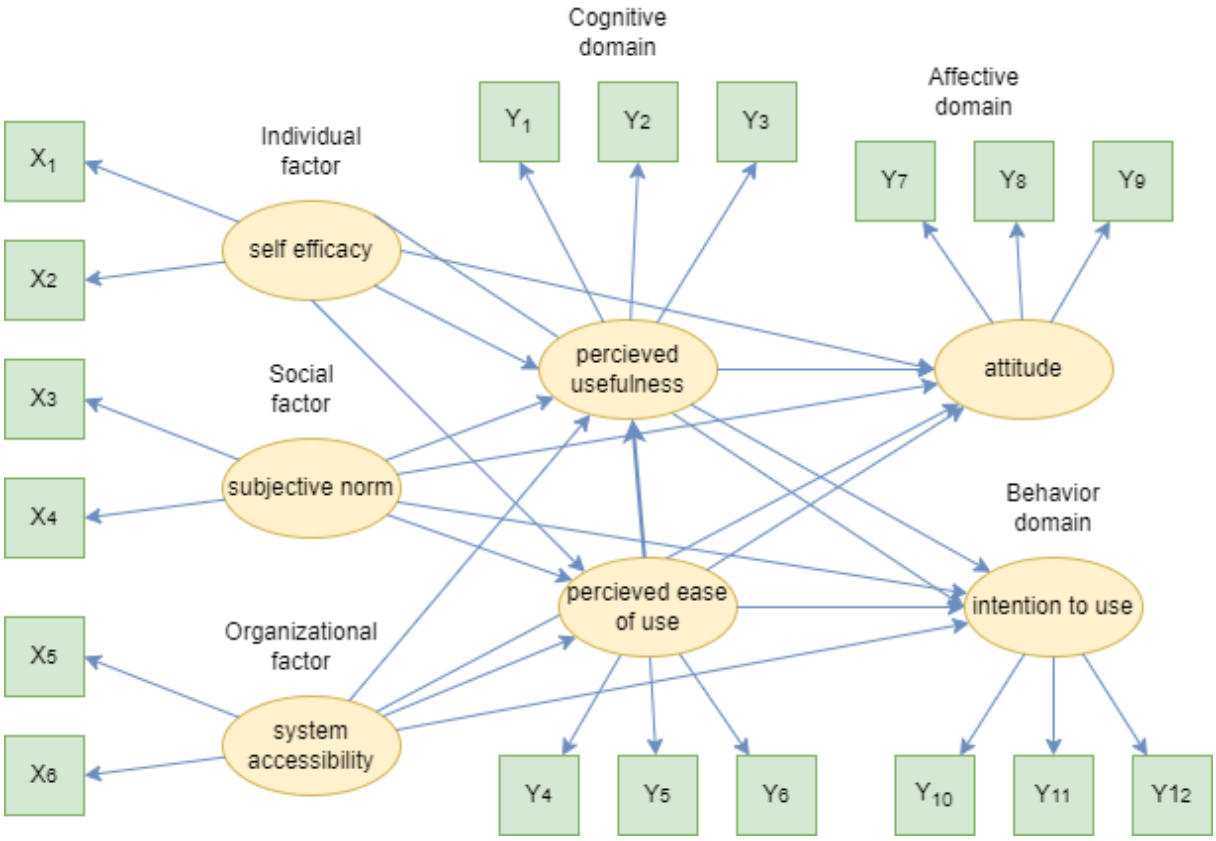

Fig.1 Research Framework

Based on previous research, this study followed and used the theoretical model of [21] and [22]. In the past, the said framework was used on electronic learning application for complementing teaching strategies. Fig. 1 represents a model to be tested and investigated on the acceptability of IT'S for C/C++ programming. It also presents a noteworthy model to investigate and assess regarding the suitability of IT'S for C/C++ development among the computing tertiary students. The proposed causal linkages between the constructs are specified by the arrows associated with them in their direction. Indicators and constructs are connected by arrows, which represent measurement validity. In the framework, observable endogenous indicators are represented by y and observed exogenous indicators by x.

2. RELATED WORKS

Recently, authors had investigated the acceptability of generative AI tools of Senior Highschool teachers in the workplace. They found out that all variables in their hypothesis had

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

high influence in accepting AI tools as they believed it greatly improved their productivity [19]. On another study, authors investigated the existing research on the influence of ChatGPT and AI tools on academic performance, with an emphasis on both the potential benefits and challenges of these AI tools. They concluded that AI tools can be useful on diverse needs of the students by taking advantage of its automated feedback feature as it can do in other disciplines [23]. The paper of [22] examined the acceptance of technology and behavioral intention on the use of learning management systems (LMS). Their result suggested that e-learning developers and stakeholders should focus on social norm, system access, and self-efficacy to increase acceptance and effectiveness of learning management systems.

3. METHODOLOGY

A. Research Design

This research uses a one-shot case study to quantitatively analyze the acceptance of generative AI use among BSCS and BSIT students. The authors made use of Google Forms, a quantitative data collection tool, to gather information from various schools and extract valuable insights. Additionally, the researchers employed descriptive statistics to summarize the data, leading to a more thorough comprehension of the information.

B. Participants and Sampling

The aim of this study is to evaluate the acceptance of Generative AI applications among BSCS and BSIT students in Metro Manila. A voluntary response sample approach was used, and a total of 208 students (54 males and 71 females) from private and public universities in Metro Manila participated. The study required the use of Slovin's Formula to determine the sample size, resulting in a sample size of 95.24 based on the survey results, with a population size of 200 and a margin of error of 0.50.

C. Research Instrument

The authors constructed the instrument based on the paper of [19], [21], and [22]. Cronbach's Alpha (α) was used to assess the reliability of the expanded TAM instrument among 209 computing students from 6 Metro Manila schools. The adopted instrument comprised six (6) constructions. The instrument consists primarily of closed-ended multiple-choice questions, and its goal is to determine the adoption of a generative AI tool in meeting school requirements. The first section confronted the pupils for demographic information. The instrument's second component consisted of 18 arranged questions based on the major variables of an extended TAM, including relevant platform factors. Responses were formatted on a Likert scale.

D. Ethical Considerations

The authors pitched support from the department heads of the chosen Metro Manila tertiary institutions in order to initially evaluate the research instrument and provide a letter of consent to carry out the study. Deans and school heads assisted in administering this as well to ensure that the questionnaire was properly handed out and that participants received an orientation prior to embarking on the research process.

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

E. Data Gathering Procedure

The study was voluntary, and participants completed their responses online by answering on Google Forms that the authors had created. While introducing the participants to the questionnaire, the authors verbally inform their students about the purpose of the study in order to secure their cooperation. The completion of the assessment took about ten to twelve minutes.

F. Statistical Treatment

The authors examined the data from the questionnaire. The data was first entered into a spreadsheet software and then transferred to SPSS for statistical analysis and visualization. The authors used IBM SPSS to generate and show the sample mean, standard deviation, frequency, percentage, and their correlation coefficients on other variables. Finally, grouped the items to each other following the hypotheses format in compliance to structural equation modeling (SEM).

4. RESULTS AND DISCUSSION

Table 1: Demographic Profile of the Sample

Age	**Number (*N*)**	**Percentage (%)**
Under 17	0	0
18	8	3.83
19	60	28.71
20 and above	141	67.46
Gender	Number (*N*)	Percentage (%)
Male	157	75.12
Female	52	24.88
Program	Number (*N*)	Percentage (%)
Computer Science	45	21.53
Information Technology	164	78.47
Participating Schools	Number (*N*)	Percentage (%)
University 1	1	0.48
University 2	1	0.48
University 3	58	27.75
University 4	1	0.48
University 5	1	0.48
University 6	1	0.48
University 7	146	69.86

Table 1 reveals that out of the 209 students surveyed, the majority (67.46%) were aged 20 and above. The data also indicates that the majority of participants (75.12%) were male, while 24.88% were female. It's worth noting that 21.53% of the respondents were BS Computer

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

Science students, with the remaining 78.47% being BSIT students. Lastly, University 7 had the highest number of volunteers (146), making up 69.86% of the total.

Table 2: Computer and Internet-related skills.

Do you have computer access at home?	**Number (N)**	**Percentage (%)**
Yes	150	71.77
No	59	28.22
Do you have Internet access at home?	Number (*N)*	Percentage (%)
Yes	190	90.90
No	19	9.09
Computer Skills	Number (*N)*	Percentage (%)
Not skilled	5	2.39
Beginner	57	27.27
Intermediate	109	52.15
Advanced	34	16.26
Expert	4	1.91
Internet Skills	Number (*N)*	Percentage (%)
Not skilled	1	0.48
Beginner	29	13.88
Intermediate	113	54.07
Advanced	48	22.97
Expert	18	8.61
Awareness on Generative AI Tools?	Number (*N)*	Percentage (%)
Yes	206	98.56
No	3	1.44
How often do you use Generative AI tool in your school?	Number (*N)*	Percentage (%)
Never	9	4.30
Occasionally	123	58.85
Frequently	65	31.10
Always	12	5.74
Chat GPT	Number (*N)*	Percentage (%)
Never heard of it	1	0.48
I heard it but I don’t know how to use it	11	5.26
I know how to use it	151	72.25
I am very knowledgeable about it	46	22.00
Copilot	Number (*N)*	Percentage (%)
Never heard of it	125	59.81
I heard it but I don’t know how to use it	57	27.27

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

I know how to use it	22	10.52
I am very knowledgeable about it	5	2.39
Gemini	Number (*N*)	Percentage (%)
Never heard of it	95	45.45
I heard it but I don't know how to use it	57	27.27
I know how to use it	45	21.53
I am very knowledgeable about it	12	5.74

In Table 2, the respondents' computer and internet-related skills are described. According to the data, 150 respondents, or 71.77%, have access to computers at home. Surprisingly, 190 respondents, or 90.90%, were able to access the internet. It is interesting to note that 109 respondents, or 52.15%, were intermediate users in terms of computer skills regardless of the program they had taken. Similarly, in terms of internet skills, 113 respondents, or 54.07%, were intermediate users.

The survey revealed that 206 out of 210 participants, or 98.56%, were aware of Generative AI tools such as Chat GPT, CoPilot, and Gemini. Additionally, 123 participants, or 58.85%, admitted to occasionally using Generative AI tools at school. Finally, Chat GPT was found to be the most widely used Generative AI tool among the three in terms of technical expertise.
The internal reliability of the instrument was measured using Cronbach alpha of 0.952 among 209 CS and IT students. A factor loading was obtained for each item using IBM SPSS application.

Table 3: Factor loading and Cronbach Alpha results.

Item	**Mean (μ)**	**SD (σ)**	**Factor Loading**	**Cronbach Alpha**	**Item**	**Mean (μ)**	**SD (σ)**	**Factor Loading**	**Cronbach Alpha**
E1	3.86	0.926	0.735	0.950	A1	3.25	1.02	0.700	0.949
E2	3.77	0.949	0.786	0.949	A2	3.22	.997	0.785	0.949
E3	3.53	0.977	0.488	0.951	A3	3.71	1.05	0.643	0.948
U1	3.36	1.08	0.610	0.949	SE1	3.16	.968	0.582	0.951
U2	3.36	1.09	0.523	0.951	SE2	3.43	.898	0.652	0.948
U3	3.63	0.949	0.569	0.949	SN1	3.27	.931	0.656	0.949
B1	3.63	0.886	0.674	0.948	SN2	3.38	.929	0.686	0.948
B2	3.26	0.895	0.413	0.951	SA1	3.58	.970	0.636	0.949
B3	3.45	0.921	0.714	0.948	SA2	3.70	1.02	0.711	0.947

The results in Table 3 display the factor loading of the constructs and internal validity of the instrument used. A Cronbach's alpha (α) value greater than 0.70 is considered satisfactory. Notably, the coefficient alpha values were approximately 0.947 or 0.951, indicating strong internal consistency with a 0.004 interval.

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

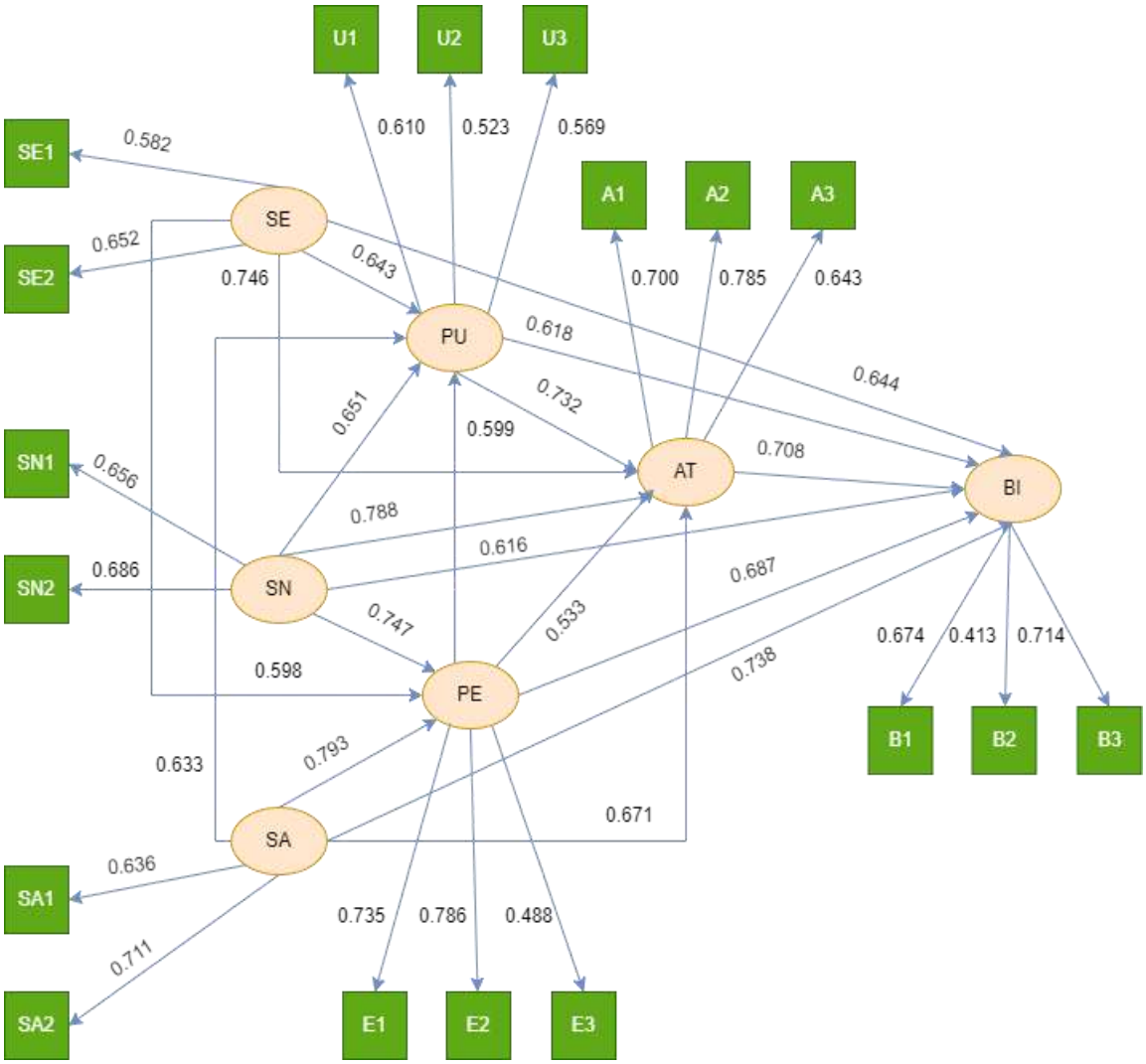

Fig.2 Factor loading, and Parameter estimates of the general structural model.

To construct the target model illustrated in Fig. 2, the authors employed the bootstrapping method (two-tailed test) and conducted an analysis of t-statistics values (using a significance level of $p < 0.05$ and t-statistics > 1.96). It can be gleaned on the findings in Figure 2, it was very evident that 6 out of 18 inter-item relationships, or 33.33%, are statistically significant and demonstrate strong effects. Moreover, SN → AT has the highest coefficient value of 0.788 followed by the factor PU → AT of 0.732 indicating their influence on generative AI tools attitude of use (AT). Lastly, PE → AT the lowest among inter-item relationships with 0.533 coefficient value.

Table 4: Factor relationship with significant value and hypotheses results.

Factor Relationship	Direct Effect	p-value	Result of hypothesis
AT → BI	0.708**	*0.000*	Supported
PU → BI	0.618**	*0.000*	Not Supported

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

PE → BI	0.687**	*0.000*	Not Supported
SE → BI	0.644**	*0.000*	Not Supported
SN → BI	0.616**	*0.000*	Not Supported
SA → BI	0.738**	*0.000*	Supported
PU → AT	0.732**	*0.000*	Supported
PE → AT	0.533**	*0.000*	Not Supported
SE → AT	0.746**	*0.000*	Supported
SN → AT	0.788**	*0.000*	Supported
SA → AT	0.671**	*0.000*	Not Supported
PE → PU	0.599**	*0.000*	Not Supported
SE → PU	0.643**	*0.000*	Not Supported
SN → PU	0.651**	*0.000*	Not Supported
SA → PU	0.633**	*0.000*	Not Supported
SE → PE	0.598**	*0.000*	Not Supported
SN → PE	0.548**	*0.000*	Not Supported
SA → PE	0.704**	*0.000*	Supported

* P-values less than 0.05 were italicized.

Table 4 summarizes the results of each item's comparison and explicit effects. The four hypotheses were confirmed using the Spearman rho, which measured their coefficient of influence on another item. Interestingly, the assumptions that were confirmed had a considerable effect on other variables.

Regarding the effects of the variables on behavioral intention (BI) is concerned, 2 out of 6 hypotheses were confirmed to have strong correlations to behavior. This includes attitude (AT) and system accessibility (SA) has the strong correlation with a coefficient value of 0.708 and 0.738.

In connection with students' attitudes (AT) toward their use of generative AI tools, three of the five factor correlations were shown to have a positive correlation coefficient value. The impacts of perceived usefulness (0.732), self-efficacy (0.746), and social norm (0.788) were significant, whereas perceived ease of use (PE) and system accessibility (SA) were rather weak (0.076). Considering the perceived usefulness (PU) of generative AI tools, it was discovered that none of the observed variables for the hypothesis were supported. Despite the fact that each has a significant value for the target variable, their correlation coefficients were not enough to prove the claim.

Finally, in terms of perceived ease of use (PE), only system accessibility with a coefficient value of 0.704 having a direct influence on the said variable. Whereas self-efficacy (0.598) and social norm (0.548) depicts a weak correlation effect.

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

5. CONCLUSION

The study concluded that three (3) of four (4) observations in the hypothesis of the TAM instrument were clearly statistically significant neutrally supported in determining the acceptability of the generative AI tools for academic requirements of the college students. This suggests that computer tertiary students were generally amenable to the idea of introducing generative AI techniques into their academic responsibilities. Given that the author made use of the same approach to conducting acceptability research outlined in previous studies, the results varied widely on the context of technology evaluated, the number of respondents, and other characteristics established by the investigation.
In summary, the findings of this study were:
H1: Based on the analysis, the inclination to utilize is significantly impacted by social influence, system accessibility, perceived usefulness, self-efficacy, and perceived ease of use. However, it was found that only students' system accessibility (SA) and attitude (AT) have a substantial effect on their inclination to use generative AI technologies.
H2: The study discovered that students' opinions about generative AI tools were mainly influenced by their perceived usefulness, self-confidence, and social norms, but not by their perceived ease of use or system accessibility.
H3: The perceived usefulness of generative AI tools among university students remains unaffected by their perceptions of how easy the tools are to use, their self-confidence in using them, societal expectations, or system accessibility.
H4: The hypotheses concerning how easily students perceive the system to use were completely backed by two variables, and system accessibility has a direct impact on this factor.
The findings pointed out the importance of this study in educational approach for satisfying the academic needs of computer science and information technology students. The findings will be valuable for CS and IT faculty since they can track their students' academic progress and influence them in deciding whether to embrace such systems and their purpose to use them for efficiency. As a result, computing teachers should focus on engaging students academically by encouraging critical thinking rather than relying solely on generated responses from generative AI tools.

6. REFERENCES

1. W. Yang, “Artificial Intelligence education for young children: Why, what, and how in curriculum design and implementation,” Comput. Educ. Artif. Intell., vol. 3, p. 100061, 2022, doi: https://doi.org/10.1016/j.caeai.2022.100061.
2. C. Longoni, A. Fradkin, L. Cian, and G. Pennycook, “News from Generative Artificial Intelligence Is Believed Less,” ACM Int. Conf. Proceeding Ser., pp. 97–106, 2022, doi: 10.1145/3531146.3533077.
3. D. Acemoglu and P. Restrepo, “The Race between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment,” Am. Econ. Rev., vol. 108, no. 6, pp. 1488–1542, 2018, doi: 10.1257/aer.20160696.
4. L. P. Boustan, J. Choi, and D. Clingingsmith, “Automation After the Assembly Line: Computerized Machine Tools, Employment and Productivity in the United States,” Aug.

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

2022. doi: 10.3386/w30400.
5. K. Kanazawa, D. Kawaguchi, H. Shigeoka, and Y. Watanabe, "AI, Skill, and Productivity: The Case of Taxi Drivers," Natl. Bur. Econ. Res. Work. Pap. Ser., vol. No. 30612, 2022, doi: 10.3386/w30612.
6. G. Lawton, "What is generative AI? Everything you need to know," TechTarget, 2024. https://www.techtarget.com/searchenterpriseai/definition/generative-AI (accessed Jun. 15, 2024).
7. D. Baidoo-Anu and L. Owusu Ansah, "Education in the Era of Generative Artificial Intelligence (AI): Understanding the Potential Benefits of ChatGPT in Promoting Teaching and Learning," J. AI, vol. 7, no. 1, pp. 52–62, 2023, doi: 10.61969/jai.1337500.
8. S. Ortiz, "ChatGPT vs. Copilot: Which AI chatbot is better for you?," ZDNET's Tech Today newsletter, 2024. https://www.zdnet.com/article/chatgpt-vs-bing-chat
9. M. Diaz, "How to use Copilot (formerly called Bing Chat): Bing is no longer the AI-powered copilot for the web, Copilot is.," ZDNET Tech Today, 2023. https://www.zdnet.com/article/forget-copilot-5-major-ai-features-google-rolled-out-to-chromebooks-this-week/
10. S. Pichai and D. Hassabis, "Introducing Gemini: our largest and most capable AI model," Google Blog, 2023. https://blog.google/technology/ai/google-gemini-ai/#sundar-note
11. S. Untalan, "Students under probe for allegedly using AI in submitted academic requirements," GMA Integrated News, 2023. https://www.gmanetwork.com/news/topstories/nation/857872/using-ai-to-write-essays-is-cheating-says-up-prof/story/
12. C. K. Y. Chan, "A comprehensive AI policy education framework for university teaching and learning," Int. J. Educ. Technol. High. Educ., vol. 20, no. 1, p. 38, 2023, doi: 10.1186/s41239-023-00408-3.
13. D. Dalalah and O. M. A. Dalalah, "The false positives and false negatives of generative AI detection tools in education and academic research: The case of ChatGPT," Int. J. Manag. Educ., vol. 21, no. 2, p. 100822, 2023, doi: https://doi.org/10.1016/j.ijme.2023.100822.
14. Y. K. Dwivedi et al., "Opinion Paper: 'So what if ChatGPT wrote it?' Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy," Int. J. Inf. Manage., vol. 71, p. 102642, 2023, doi: https://doi.org/10.1016/j.ijinfomgt.2023.102642.
15. D. Novak, "Why US schools are blocking ChatGPT?," Learning English, 2023. https://learningenglish.voanews.com/a/why-us-schools-are-blocking-chatgpt-/6914320.html
16. I. S. Chaudhry, S. A. M. Sarwary, G. A. El Refae, and H. Chabchoub, "Time to Revisit Existing Student's Performance Evaluation Approach in Higher Education Sector in a New Era of ChatGPT — A Case Study," Cogent Educ., vol. 10, no. 1, p. 2210461, Dec. 2023, doi: 10.1080/2331186X.2023.2210461.
17. B. Macfarlane, J. Zhang, and A. Pun, "Academic integrity: a review of the literature," Stud. High. Educ., vol. 39, no. 2, pp. 339–358, Feb. 2014, doi: 10.1080/03075079.2012.709495.
18. M. R. Krou, C. J. Fong, and M. A. Hoff, "Achievement Motivation and Academic

Journal of Artificial Intelligence, Machine Learning and Neural Network
ISSN: 2799-1172
Vol: 04, No. 05, Aug-Sept 2024
https://journal.hmjournals.com/index.php/JAIMLNN
DOI: https://doi.org/10.55529/jaimlnn.45.7.18

Dishonesty: A Meta-Analytic Investigation," Educ. Psychol. Rev., vol. 33, no. 2, pp. 427–458, 2021, doi: 10.1007/s10648-020-09557-7.

19. Angelo C. Arguson, Marvin P. Mabborang, and Rhonnel S. Paculanan, "The Acceptability of Generative AI Tools of Selected Senior High School Teachers in Schools Divisions Office-Manila, Philippines," J. Artif. Intell. Learn. Neural Netw. ISSN 2799-1172, vol. 3, no. 06 SE-Articles, pp. 1–10, Oct. 2023, doi: 10.55529/jaimlnn.36.1.10.
20. A. C. Arguson, M. P. Mabborang, and R. S. Paculanan, "The Acceptability of Generative AI Tools of Selected Senior High School Teachers in Schools Divisions Office-Manila, Philippines," J. Artif. Intell. Mach. Learn. Neural Netw., no. 36, pp. 1–10, 2023, doi: 10.55529/jaimlnn.36.1.10.
21. S. Y. Park, An analysis of the technology acceptance model in understanding University students' behavioral intention to use e-Learning, vol. 12, no. 3. 2009.
22. A. Revythi and N. Tselios, "Extension of technology acceptance model by using system usability scale to assess behavioral intention to use e-learning," Educ. Inf. Technol., vol. 24, no. 4, pp. 2341–2355, 2019, doi: 10.1007/s10639-019-09869-4.
23. T. Nurtayeva, M. Salim, T. Basheer, and S. Khalilov, "The influence of ChatGPT and AI Tools on the Academic Performance," vol. 22, pp. 247–258, Jun. 2023, doi: 10.37896/YMER22.06/26.