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Assessing the Determinants of Faculty Acceptance of Generative AI in Research Practices

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Abstract

Generative AI (GenAI), specifically ChatGPT, is a unique technology developed by OpenAI that holds significant potential to assist users, including faculty, in addressing their queries. One particularly intriguing and valuable feature is its ability to support users in their research practices. The academe demonstrates varying opinions regarding the use of the tool, with faculty perceiving its ability to make the education system toward utopian or dystopian outcomes. One glaring situation is faculty acceptance of integrating AI with their research practices. Such spectrum is not widely researched, therefore served a research gap. This study focuses to assess the determinants that influence faculty researchers to integrate GenAI in their research workflows and to determine the level of faculty acceptance regarding the use of the tool in their research practices. It incorporates the use of descriptive and inferential statistics, including an open-ended question for validation purposes. Through the framework of Technology Acceptance Model (TAM) developed by Fred Davis, the statistical treatments, and the thematic analysis made, it has found out that "perceived usefulness" (PU), to a greater extent, and "perceived ease of use" (PEOU) indicate a higher possibility of adopting the use of GenAI among faculty researchers. It suggests that faculty are generally favorable in the integration of the technology, however, should be dealt with great caution by implementing clear policy guidelines.

Keywords: ChatGPT; Perceived Usefulness; Perceived Ease of Use; Technology Acceptance Model

Introduction

Artificial Intelligence (AI) could replace your job. A made statement to create a lot of people to worry and overthink on the potential impacts of the adoption of AI. According to a report by the investment bank Goldman Sachs, AI could replace the equivalent of 300 million full-time jobs globally (Vallance, 2023). This might carry a negative stigma that lingers among employees, including educators, to face a dilemma to which many even at this initial stage of AI have recognized the possible implications in various sectors. Education sector, for one. AI could impact teachers in multiple respects. Concerns such as detecting plagiarism and cheating on assignments could be difficult for them to manage. Teachers express concerns ranging from worries about being replaced by technology to emphasizing the crucial role of in-person classroom connection in education (Lutkevich, 2024). The report from Goldman Sachs, however, provided that AI will be taking some jobs but may also mean creating new ones. A statement that may provide a sigh of relief to everyone including educators.

Generative AI (GenAI) popularized by OpenAI took the world by surprise when they launched their ChatGPT in November 2022. This incredibly powerful technology earned a million users in five days and secured 100 million users in two months after it was made public (Hu, 2023). An astounding achievement greater than the feat that Facebook and Tiktok in terms of user growth. Compared to the prior platforms, the rapid adoption of ChatGPT showcases the growing demand for AI-driven tools capable of performing complex language tasks like instant utility for various needs which include but not limited to code generation, writing and tutoring catered not only for students but also for professionals. Thus, this has caused mixed feelings among educators on the progress of AI that appears to immensely transform educational pedagogies and andragogies (Baidoo-Anu & Owusu Ansah, 2023). On the other hand, GenAI is considered a tool that is now readily and widely available to the research community. It provides transformative capabilities, yet there is a need to maintain a balance between utilizing the potential of these tools and safeguarding or ensuring that research meets standards of veracity, validity, originality, and reproducibility (Cornell University Task Force, 2023). Also, when adopted in research, it can offer an acceleration to research similar to computer-based statistic packages, and even the internet search engines (Dwivedi et al., 2023). A study has argued that by developing AI techniques or methods to aid in the actual process of scientific discovery can take the next step and enable efficient human-AI collaboration for seeking new knowledge. That AI methods can be used across several scientific fields, but to encourage researchers to work on general techniques or methods, there should be a need to create an environment that are simple to use and are welcoming (Lee et al., 2024). Despite its promise to provide productivity in research and democratize difficult analytical processes, the adoption of GenAI into academic practice has brought about substantial issues around the evolving nature of scholarly work, security, authorship and research integrity (Perkins & Roe, 2024).

GenAI among university educators is still considered a dystopia and a utopia as well. While some scholars see AI as a challenge to traditional notions of authorship and intellectual property because of "AIgiarism", others see it as a potential tool for enhancing creativity and productivity when used responsibly. This term "AIgiarism" was coined to address users' (whether students or faculty) increased concerns about potentially plagiarizing its products (Murugesan & Cherukuri, 2023, p. 119). This made educators cautious of the use of AI for students may over rely and can hinder the essential skills of students' development, including the distrust of the accuracy of what AI has to offer (Ofosu-Ampong, 2024). On the contrary, some faculty do not adopt GenAI because they lack knowledge about its potential capabilities in instructional and research practices. Some may have heard about GenAI, particularly ChatGPT, and not curious enough to know how to explore its features that can possibly simplify and accelerate their work. Likewise, the lack of research about in-depth interactions between advanced chatbots and humans is still in its infancy stage, that researchers (faculty as well) should use the growing capabilities of Natural Language Processing (NLP) and the usage of its technologies to conduct further research (Collins et al., 2021). The significance therefore of assessing the faculty acceptance of GenAI in research practices can shed light on how it may influence their increased productivity, Human-AI collaboration, structure and decision-making processes. Such study may also help identify the potential risks and benefits of GenAI adoption, guiding the faculty and schools (specifically the policymakers) in regulating this rapidly transformative technology.

This study made the researcher focuses on (1) assessing the determinants that influence faculty researchers to integrate GenAI into their research workflows through the framework of Technology Acceptance Model (TAM) developed by Fred Davis (1989), and (2) determining the level of faculty acceptance regarding the

integration of generative AI into academic research practices. These research objectives stemmed from the observation of the researcher that existing studies commonly explore the level of student acceptance of GenAI and its role in enhancing the student outcomes. However, there is a noticeable gap in the literature regarding faculty acceptance and attitude toward GenAI, particularly in the context of research practices. Using TAM may describe faculty's intentions on their acceptance of GenAI in relation to their research activities. With its system design features or external factors, three-stage process are involved namely the cognitive response (perceived ease of use and perceived usefulness), which elicits an affective response (attitude toward using the app or technology) that may influence the behavior in using the app or technology (Davis, 1989).

Methods

The study is a quantitative research that has utilized a standardized quantitative research instrument developed by Davis. Additionally, a qualitative research instrument has been integrated to identify categorically the features of GenAI that motivate faculty members to use it on their academic research endeavors.

To analyze the data, Descriptive Statistics is used to summarize the results using mainly the Mean score and the Standard Deviation. Range Scale has been used to interpret the mean scores of each item under the categories for Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) respectively. To assess better the determinants of faculty acceptance of the use of GenAI in their research practices, Multiple Linear regression is utilized to identify further the association of the overall usefulness and overall ease of use (dependent variables) with the independent variables that made faculty be influenced and integrate the technology in conducting research. For the qualitative data, thematic analysis is used to generate themes or identify patterns within the texts provided by the respondents. Aside from identifying patterns in data, thematic analysis provides organization and description of data, understanding participant perspectives, interpretation of the meaning of data and insight generation for decision making.

A combination of thirty-six (36) full-time and part-time faculty members participated the survey with research instrument provided to them via messenger blast, which refers to sending a message with the attached MS Forms link to multiple recipients simultaneously through Facebook messenger done manual group or individual messaging. The eligibility criteria of the participants are as follows: must have completed a research or currently writing one, university faculty of Lyceum of the Philippines University-Manila (LPU-MNL), and familiar with Generative AI specifically ChatGPT. The study was conducted from June to October of 2024 choosing LPU-MNL as the research locale because of the researcher's convenience and influence.

Results

This section presents the results of the data obtained from the instruments used in this study. Through this paper's research objectives, it then determined and identified the collective responses of the participants, drawing interpretations of the meaning and patterns of data as a guide for future undertakings whether in researches or implications for practice.

Below is a 7-point scale mean utilized in this paper derived from Pimentel's study (2019) and adjusted for compatibility with the 7-point scale data:

Table 1. 7 – Point Likert Scale Mean

Likert Scale	Interval	Difference	Degree / Interpretation
1	1.0 – 1.85	0.85	Strongly Agree
2	1.85 – 2.71	0.85	Agree
3	2.72 – 3.57	0.85	Somewhat Agree
4	3.58 – 4.43	0.85	Neutral
5	4.44 – 5.29	0.85	Somewhat Disagree
6	5.30 – 6.15	0.85	Disagree
7	6.16 – 7.00	0.84	Strongly Disagree

There are two categories incorporated in the TAM research instrument, one is "Perceived Usefulness" and the other is "Perceived Ease of Use". These two (cognitive) as mentioned earlier can elicit attitude and influence the behavior to use ChatGPT. The tables presented below show the summary of the data obtained from the responses of faculty participants.

Table 2. Descriptive Statistics of 7 – Point Likert Scale with Perceived Usefulness of GenAI

No.	Statement	Mean	Standard Deviation	Interpretation
1	Using ChatGPT improves the quality of the work I do.	3.44	1.71	Somewhat Agree
2	Using ChatGPT gives me greater control over my work.	3.78	1.84	Neutral
3	ChatGPT enables me to accomplish tasks more quickly.	3.14	1.94	Somewhat Agree
4	ChatGPT supports critical aspects of my job.	3.69	1.89	Neutral
5	Using ChatGPT increases my productivity	3.28	1.85	Somewhat Agree
6	Using ChatGPT improves my job performance.	3.72	1.77	Neutral
7	Using ChatGPT allows me to accomplish more work than would otherwise be possible.	3.22	1.88	Somewhat Agree
8	Using ChatGPT enhances my effectiveness on the job.	3.61	1.81	Neutral
9	Using ChatGPT makes it easier to do my job.	3.25	1.79	Somewhat Agree
10	Overall, I find the ChatGPT system useful in my job.	3.03	1.84	Somewhat Agree

The table shows that faculty members who participated in the study generally agree that ChatGPT is somewhat useful, particularly in terms of productivity and task completion as reflected in items 1, 3, 5, 7 and 9. Specifically, in item 1 participants perceive that ChatGPT moderately improves work quality; item 3 made them agree that the tool is somewhat useful for improving task quickly; item 5 made them perceive that it contributes to productivity improvement; item 7 to allow them to accomplish more tasks; and item 9 is reflected as moderately helpful in simplifying ideas hence to make job easier. However, neutrality in aspects like greater control over work (item 2), supporting critical tasks (item 4), improving job performance (item 6), and enhancing effectiveness (item 8) indicates that participants are undecided or have mixed experiences regarding ChatGPT's ability.

A high standard deviation greater than 1.80 suggests that participants' responses are widely spread from the mean that indicates participants have mixed opinions about ChatGPT's usefulness. Items 2, 3, 4, 5, 7 and 10 show high variability while items 1, 6, 8, and 9 have moderate standard deviation showing relatively consistent responses with fewer outliers or discrepancies in opinions.

When participants are asked on **the overall usefulness of ChatGPT in their job (research)**, the mean obtained is 3.03 and is interpreted as **"Somewhat Agree"** having a high standard deviation of 1.84. This suggests that faculty members who participated in the survey lean towards agreement to the use of ChatGPT in their research endeavors despite the fact that it shows high variability in the responses of participants indicating diverse faculty experiences regarding the tool's perceived usefulness, possibly reflecting differences in comfort and familiarity with it (Emphasis supplied).

Table 3: Descriptive Statistics of 7 – Point Likert Scale with Perceived Ease of Use of GenAI

No.	Statement	Mean	Standard Deviation	Interpretation
1	I find the ChatGPT system cumbersome (difficult) to use.	5.17	1.72	Somewhat Disagree
2	Learning to operate the ChatGPT system is easy for me.	2.75	1.90	Somewhat Agree
3	Interacting with the ChatGPT system is often frustrating.	5.19	1.45	Somewhat Disagree
4	I find it easy to get the ChatGPT system to do what I want it to do.	3.17	1.78	Somewhat Agree
5	The ChatGPT system is rigid and inflexible to interact with.	4.94	1.71	Somewhat Disagree
6	It is easy for me to remember how to perform tasks using the ChatGPT system.	3.19	1.83	Somewhat Agree
7	Interacting with the ChatGPT system requires a lot of mental effort.	5.06	1.69	Somewhat Disagree
8	My interaction with the ChatGPT system is clear and understandable.	2.69	1.53	Agree
9	I find it takes a lot of effort to become skillful at using ChatGPT.	4.78	1.68	Somewhat Disagree

10	Overall, I find the ChatGPT system easy to use.	2.42	1.61	Agree

The results of the participants' responses regarding ChatGPT's Perceived Ease of Use vary across items, with some indicating Somewhat Agree or Agree and others falling under Somewhat Disagree. In this section, items 2, 4 and 6 scored 2.75, 3.17, and 3.19 means respectively. This is interpreted as Somewhat Agree or it suggests that faculty participants moderately agree that to use ChatGPT is easy to learn (2), easy to get desired results (4), and easy to remember performing tasks (6). On the other hand, items 1, 3, 5, 7, and 9 are interpreted Somewhat Disagree with means of: 5.17, 5.19, 4.94, 5.06, and 4.78 respectively. These items indicate that participants score slightly disagreeing as shown in their responses that ChatGPT is not cumbersome or difficult to use, not often frustrating, not rigid of inflexible to interact with, does not require a lot of mental effort, and does not take a lot of effort to become skillful at using it; therefore reflecting some aspects of ChatGPT are easy to use. Furthermore, mean scores of items 8 (2.69) and 10 (2.42) have obtained an interpretation of **"Agree"** indicating that ChatGPT system is clear and understandable and an **overall ease of use of the tool** (Emphasis supplied).

The computed scores of standard deviation using a jamovi app software (2023) vary ranging from moderate to high variability. Compared from the Perceived Usefulness category, this section has lower variability scores indicating that responses of the participants are closer to the mean scores. The items with high variability are 2 and 6 with 1.90 and 1.83 scores respectively and the others falling under moderate variability. This is to note that higher standard deviation reflects possible outliers or diverse participants' experiences with the tool's usability. Additionally, suggesting that some faculty participants may find ChatGPT easy to use or intuitive while others may face challenges in using the tool.

Another table to use as reference for verbal interpretation is presented below. This guides the researcher in interpreting the overall acceptance of the faculty participants with respect to the use of ChatGPT in their research workflows.

Table 4. Descriptive Statistics of 5 – Point Likert Scale with Level of Acceptance of Faculty with the use of GenAI in Research Practices

Likert Scale	Interval	Difference	Degree / Interpretation
1	1.0 – 1.79	.79	Do not Accept
2	1.80 – 2.59	.79	Somewhat Accept
3	2.60 – 3.39	.79	Neutral
4	3.40 – 4.19	.79	Accept
5	4.20 – 5.00	.80	Strongly Accept

Table 5. Descriptive Statistics of 5 – Point Likert Scale with Level of Acceptance of GenAI

No.	Statement	Mean	Standard Deviation	Interpretation
1	The level of overall acceptance of ChatGPT use	3.67	1.17	Accept

The table shows that based on the 5 – Point Likert Scale, a mean score of 3.67 corresponds within the "Accept" category having an interval of 3.40 to 4.19. The result suggests that faculty participants generally approve or accept the use of ChatGPT in research practices.

There is a relatively high standard deviation with 1.17 computed score. It is common that if standard deviation is more than 30% of its mean score it indicates high variability. To determine its descriptive variability, divide 1.17 (s.d.) by 3.67 (mean). The answer then is multiplied by 100. Doing so, the researcher has obtained 32%, therefore greater than 30% suggesting high variability. This reflects that while many faculty participants expressed approval or acceptance, there were some who had various degrees of acceptance, which may have been due to different experiences or varying levels of comfort and familiarity with this GenAI – ChatGPT specifically.

To assess better the determinants of faculty acceptance of ChatGPT in their research practices, the researcher has used Multiple Linear Regression to explain further the perspectives and opinions of faculty participants with the overall usefulness and ease of use of the tool that made them agree moderately in "Perceived Usefulness" (PU) and generally agree in the "Perceived Ease of Use" (PEOU) categories using the results obtained from the survey. With this, jamovi app software (2023) was utilized to compute for the scores deemed necessary to interpret its meaning. It is hypothesized then that all nine (9) items under PU category will be positively associated with the overall usefulness of faculty acceptance of GenAI in their research practices.

Table 6: Aggregate Relationship of 9 PU items with PU10 (Overall Usefulness of ChatGPT)

Model Fit Measures

			Overall Model Test			
Model	R	R^2	F	df1	df2	p
1	0.953	0.908	28.4	9	26	<.001

In this table, results show that the 91% of the variance (R^2) is explained by the aggregated computed scores of the nine (9) PU items, F (9, 26) = 28.4, p = <.001 indicating that all 9 items are positively associated with the overall usefulness of the tool. However, if computed individually from PU1 to PU9 with PU10, each item is not positively associated with the overall usefulness as shown in the next table.

Table 7: Relationship of each PU item with PU10 (Overall Usefulness of ChatGPT)

Model Coefficients - PU10

Predictor	Estimate	SE	t	p
Intercept	−0.3359	0.277	−1.214	0.236
PU1	−0.1465	0.244	−0.599	0.554
PU2	0.1175	0.179	0.656	0.518
PU3	0.1061	0.233	0.456	0.652
PU4	0.0717	0.160	0.447	0.658
PU5	0.0778	0.252	0.308	0.760
PU6	−0.0689	0.250	−0.275	0.785
PU7	0.1281	0.213	0.600	0.554
PU8	0.1643	0.225	0.729	0.472
PU9	0.5605	0.211	2.659	0.013

The table shows the relationship of each item (independent variable) with PU10 (dependent variable). Estimate is the coefficient (*ß*), SE is Standard Error, t is t- statistic or t-value and p is the probability-value or p-value which represents the probability of obtaining the observed results, whether each observed result is significant or not significant with the dependent variable. This paper used the p-value of <.001for it to be significant. Based on the scores provided, not even one item is considered significant because all of the p-values are not <.001. Specifically, PU1 (ß = - 0.15, t = -0.60, and p = 0.55), PU2 (ß = 0.12, t = 0.66, and p = 0.52), PU3 (ß = 0.11, t = 0.46, and p = 0.65), PU4 (ß = 0.07, t = 0.45, and p = 0.66), PU5 (ß = 0.08, t = 0.31, and p = 0.76), PU6 (ß = -0.07, t = -0.28, and p = 0.79), PU7 (ß = 0.13, t = 0.60, and p = 0.55), PU8 (ß = 0.17, t = 0.73, and p = 0.47), and PU9 (ß = 0.56, t = 2.67, and p = 0.01). This suggests that each independent variable or every PU item does not contribute equally to the prediction regarding PU10 as opposed to the 9 PU items taken collectively can predict it well or considered significant. It indicates that each PU item is not positively associated with the overall usefulness of GenAI in their research, however positively associated when computed collectively. This situation happens when there is multicollinearity, shared variance, small sample size, among others.

Table 8: Aggregate Relationship of 9 PEOU items with PEOU10 (Overall Ease of Use of ChatGPT

Model Fit Measures

			Overall Model Test			
Model	R	R^2	F	df1	df2	p
1	0.934	0.872	19.7	9	26	<.001

Based on the table, results show that the 87% of the variance (R^2) is explained by the aggregated computed scores of the nine (9) PEOU items, F (9, 26) = 19.7, p = <.001 indicating that all 9 items are positively associated with the overall ease of use of ChatGPT. However, if computed individually from PEOU1 to PEOU9 with PEOU10, only PEOU8 item is positively associated with the overall ease of use while other items do not as shown in the next table.

Table 9: Relationship of each PEOU item with PEOU10 (Overall Ease of Use of ChatGPT)

Model Coefficients - PEOU10

Predictor	Estimate	SE	t	p
Intercept	1.27120	0.5366	2.3691	0.026
PEOU1	−0.00549	0.1255	−0.0437	0.965
PEOU2	−0.03695	0.0989	−0.3736	0.712
PEOU3	−0.04278	0.1606	−0.2664	0.792
PEOU4	−0.25530	0.1623	−1.5728	0.128
PEOU5	0.25809	0.1156	2.2318	0.034
PEOU6	0.01014	0.1344	0.0755	0.940
PEOU7	−0.37745	0.1266	−2.9824	0.006
PEOU8	1.18881	0.1407	8.4496	<.001
PEOU9	−0.06225	0.0969	−0.6425	0.526

The table shows the relationship of each PEOU item (independent variable) with PEOU10 (dependent variable). Based on the scores provided, only PEOU8 item is considered significant having ß = 1.19, t = 8.45, and p = <.001. The other independent PEOU items have p-values that are not <.001. Specifically, PEOU1 (ß = - 0.01, t = -0.04, and p = 0.97), PEOU2 (ß = -0.04, t = -0.37, and p = 0.71), PEOU3 (ß = -0.04, t =- 0.27, and p = 0.79), PEOU4 (ß = -0.26, t = -1.58, and p = 0.13), PEOU5 (ß = 0.26, t = 2.23, and p = 0.03), PEOU6 (ß = 0.01, t = 0.08, and p = 0.94), PEOU7 (ß = -0.38, t = -2.98, and p = 0.006), and PEOU9 (ß = -0.06, t = -0.64, and p = 0.53). This suggests that each of these eight (8) PEOU independent variables does not contribute equally to the prediction regarding PEOU10 (except PEOU8) as opposed to the 9 PEOU items taken collectively can predict it well or considered significant. It indicates that each PEOU item, except PEOU8, is not positively associated with the overall usefulness of GenAI in their research practices, however positively associated when computed collectively. Again, this situation commonly happens because of multicollinearity, shared variance, and/or small sample size.

To validate responses of the faculty participants, the researcher has incorporated an open-ended question. The time that this was distributed, there were only nine (9) of the thirty-six (36) participants who were available online and completed the request of the researcher. It was purposefully made for a convenience sampling. The table below presents the responses of the faculty participants.

Table 10: Thematic Analysis of Faculty Responses on ChatGPT Features Motivating Research Use

Theme	Code	Participant No.	Sample Response
Idea Exploration and Generation	Brainstorming ideas	1 & 5	P1: Exploration of ideas P5: To quickly brainstorm ideas
	Understanding complex topics	5	P5: Understand complex topics and find information easily
	Exploring alternative perspectives	9	P9: To see other perspectives like from ChatGPT
Content Creation and Structuring	Improving content organization	3	P3: How to structure the progression of my ideas in the paper
	Improving concept explanation	3	P3: I use it to provide suggestions on how to best explain the concepts
	Creating outlines and research structure	8	P8: ChatGPT can help to make an outline to start up a research study (Title, SOP, Methodology)
	Assisting with clarity	7	P7: Give clarity on the topic and steps of doing my research
	Content creation by researchers	4	P4: It can help with content creation
	Data synthesis and analysis	4	P4: In order to create succinct and powerful investigations, it can also comprehend, generate, analyze, and

			synthesize data supplied by researchers
Accessibility and Usability	Easy access	2	P2: Easy access
	Immediate assistance	4	P4: Offer immediate assistance
	Easy information retrieval	5	P5: Find information easily
Instruction and Guidance	Individualized instruction	4	P4: Offer more individualized instruction
	Steps for conducting research	7,8	P7: Steps of doing my research P8: Suggest essentials in making research
Critical Use of AI	Ethical considerations	8	P8: Ethical considerations must take into account
	Cautious use of AI as reference	9	P9: Responses may not be 100% true but may serve as one of the references
	Preferring alternative tools	9	P9: I prefer to use copilot than ChatGPT
Motivation and engagement	Motivating to explore research	6	P6: Motivation
	Explore to participate	8	P8: Thank for choosing me. I am excited to see the result of this study.

Table 10 shows the thematic analysis categorized into six (6) themes following the responses of the faculty participants. The themes are idea exploration and generation, content creation and structuring, accessibility and usability, instruction and guidance, critical use of AI, and motivation and engagement. Participants acknowledge the ability of ChatGPT for largely anything. First, because it can provide the users the possibility of idea exploration and generation which it can help them in brainstorming ideas, understanding complex topics, explaining alternative perspectives and potentially even generating new ideas as exemplified by Participants 1 (“exploration of ideas”), 5 (“to quickly brainstorm ideas”, “understand complex topics”), and 9 (“to see other perspectives..”). Second, ChatGPT can assist faculty in improving and tuning their research through its ability for content creation and structuring. Specifically, in improving content organization, explaining complex concepts, creating outlines and research structure, assisting with clarity, creating content, and analyzing and systematizing data. Using the tool can easily guide them as shared by Participants 3 (“..structure the progression of my ideas”), 4 (“..help with content creation”, “..comprehend, generate, analyze and synthesize data”), 7 (“Give clarity on the topic and steps of doing my research”, and 8 (“..help to make an outline to start up a research study”). Third, the ability of the tool in providing accessibility and usability of the participants or users. Its seamless easy access, immediate assistance with the queries (prompts) of faculty, and easy information retrieval made it a significant motivator for faculty participants to use ChatGPT as noted by Participants 2 (“easy access”), 4 (“offer immediate assistance”), and 5 (“find information easily”). Fourth, this GenAI is helpful for faculty researchers in providing instruction and guidance through steps and information about research 24/7. Specifically, it offers an individualized instruction that can act as a virtual mentor - offering tailored assistance that supports both neophyte or experienced faculty researchers, and can guide them steps for

conducting research as described by Participants 4 ("offer more individualized instruction"), 7 ("steps of doing my research"), and 8 ("suggest essentials in making research"). Fifth, despite the potentials of ChatGPT's ability, the faculty recognizes as well the critical use of AI. Some of the participants capitalized the importance of ethical considerations and responsible use of ChatGPT as reference, while some prefer alternative tools as valued by Participants 8 ("ethical considerations must take into account"), and 9 ("Responses may not be 100% true but may serve as one of the references", "I prefer to use Copilot than ChatGPT"). Finally, through this technology, it can motivate the faculty to engage in research because of its potentials that make it exciting, easy, useful, and accessible to use. It stimulates them to explore research and be excited to explore research participation and similarly its result as emphasized by Participants 6 ("Motivation"), and 8 ("I am excited to see the result of this study").

Discussion

This research is conducted to assess the features of GenAI and to determine the level of faculty acceptance that influence faculty researchers to integrate it into their research through the framework of Technology Acceptance Model (TAM). TAM has been considered a preeminent theory of technology acceptance in Information System (IS) research (Gefen et al, 2003). Additionally, it shows that acceptance of a new information technology is determined by its Perceived Usefulness (PU) and the Perceived Ease of Use (PEOU) (Holden & Karsh, 2010). The mention of GenAI in this study refers to ChatGPT, a technology developed by OpenAI.

Based on the survey results (employing a TAM instrument) and an open-ended question, the faculty acceptance of GenAI are attuned to the usefulness and ease of use of the GenAI. The adoption of GenAI of users specifically the faculty researchers who participated in this study depends on the features or determinants of the model used. Generally, the greater the need of the technology's usefulness, the greater the adoption or acceptance of users as revealed in the study of Ghimire and Edwards (2024). Nonetheless, this paper's result is contrary to what has been obtained from Ghimire & Edwards' study because of the use of descriptive statistics – mean and standard deviation. The "perceived ease of use" has significant overall scores than the "perceived usefulness". A different interpretation has likely shown when multiple linear regression was used. The "perceived usefulness" has a higher variance score than "perceived ease of use". Using descriptive statistics and having a sample size of thirty-six (36) faculty participants, this indicates "perceived ease of use" plays a greater role in the adoption of ChatGPT than "perceived usefulness", however in terms of predicting or inferring it to a population (using regression), "perceived usefulness" has a larger extent of significance than "perceived ease of use". One reason that might affect the difference is the sample size used in this study. Another reason is the familiarity and comfort of faculty participants regarding the use of ChatGPT. Not all participants have the same level of familiarity and comfort towards the GenAI tool. There were ten (10) participants who managed not to use the tool and of the 10 participants, two (2) of which have no research or on-going research for two (2) years. On the other hand, of the twenty-six (26) who have used the tool, there were only two (2) who have not completed a research for the same period. A 20% of the faculty participants who are not using ChatGPT have not completed a research while those who are familiar obtained a lower percentage of not completing a research with a 7.69% rating. This suggests that there is a greater chance that a faculty can complete a research while exploring the potentials of using the GenAI than those who are not. However, would the results report similar interpretation if sample size is increased? This question can serve as a starting point for a new research project.

The findings of the qualitative data derived from thematic analysis leaned more on the "perceived usefulness" over "perceived ease of use". Themes yielded from the open-ended question are focused mainly on functionality or usefulness like idea exploration and generation, content creation and structuring, instruction and guidance, usability, and motivation given by the participants while a participant only noted a response pertaining on the ease of use. This indicates that faculty participants value more the "perceived usefulness" of the tool rather than the "perceived ease of use".

The study then drew its conclusion that faculty explores the use of GenAI when it is perceived useful and perceived that it is easy to use. Of the two, however, "perceived usefulness" has a stronger positive correlation score than "perceived ease of use" as triangulated based on the analysis made for the open-ended question, literature review, and Davis' TAM. No wonder that the overall acceptance of participants is generally agreeable or accepts the use of GenAI in their research practices.

Assessment of the Features/Determinants of Faculty Acceptance with the Use of GenAI

As follows are the notable points that were drawn in this study regarding the features or determinants of faculty acceptance in their research practices:

1. Through the framework of TAM, it is assessed that faculty generally accept or approve the use of GenAI (ChatGPT) in their research practices.
2. It is assessed that "perceived usefulness" and "perceived ease of use" play vital roles that can suggest faculty to decide an integration of GenAI in their research workflows.
3. Using Descriptive Statistics, "perceived ease of use" or "PEOU" Indicates a higher score of significance than "perceived usefulness" or "PU". This is obtained from the overall mean of the two categories. The standard deviation is generally high that suggests different opinions and experiences stemming from faculty participants' comfort and familiarity of the tool.
4. While descriptive statistics is to summarize the description of the data, multiple linear regression is also utilized to identify the association of the independent variables used in the instrument with the dependent variable (overall usefulness and ease of use).
5. Using regression, "PU" and "PEOU" variables have positive association whether with the overall usefulness and overall ease of use, respectively. "PU", however, scored higher extent of significance than "PEOU". It suggests that faculty lean more on the usefulness than the ease of use.
6. Each independent variable used in "PU" cannot stand alone equally with the dependent variable (overall usefulness) as shown in the p-value scores of each item. However, when considered all the independent variables, p-value score is significant, therefore has a positive association. Such situation happens because of multicollinearity, shared variance, and/or having a small sample size.
7. Each independent variable under "PEOU" category except PEOU8 cannot stand alone equally with the dependent variable (overall ease of use) as shown in the scores of p-value of each item. However, when considered all the independent variables, p-value score is significant, therefore has a positive association. Such situation happens because of multicollinearity, shared variance, and/or having a small sample size.
8. Themes derived from the responses of participants are as follows: idea exploration and generation, content creation and structuring, accessibility and usability, instruction and guidance, critical use of AI, and motivation and engagement.
9. Most of the themes generated lean more on the "perceived usefulness" suggesting a parallel observation or findings from other studies and Technology Acceptance Model by Davis (1989).

10. Faculty participants have varying levels of familiarity and comfort in the use of GenAI. There are more faculty who completed one or more research when there is familiarity exploring the ability of
11. ChatGPT. Additionally, those who are using it are more open in the integration of the tool in their research practices, however, maintain that there should be clear policy guidelines for ethical consideration and privacy security.

Overall Faculty Acceptance with the Use of GenAI in their Research Practices

As derived from this study, the following points highlight the overall faculty acceptance with the use of GenAI in their research practices:

1. Even without using the TAM instrument, the overall faculty acceptance appears to be generally agreeable and widely embraced as shown in the 5-point Likert survey and open-ended question.
2. The acceptance and adoption of using GenAI mainly resulted from usefulness and ease of use. The more the faculty or users perceive the tool as useful, the higher their acceptance and likelihood of adopting it. This aligns with the TAM framework (Davis, 1989), which suggests that perceived usefulness, to a greater extent, and ease of use significantly influences the formation of positive or negative attitudes toward a new technology, ultimately determining its adoption or rejection.
3. Despite the general acceptance, there were still some faculty participants who demonstrated a lack of openness toward the use of the tool as evidenced by the high variability in responses across most items in both "PU" and "PEOU". These participants, who served as outliers, were found to have either not utilized the tool or lacked familiarity with its features.

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