Perceived Usefulness and Ease of Use of Gpt Technology in Enhancing Students and Academic Staff Creativity in Management and Social Science: A Case of Thomas Adewumi University

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Introduction

- **Brief Overview of ChatGPT**: First and foremost, GPT is a popular AI-driven chatbot, widely adopted in early 2023 (Sundar, 2023).

- **ChatGPT in Education:** It is widely adopted in education for tasks like assessment design, language translation, and academic support (Sok, 2023).

Introduction (Continued)

- **Basis for the Statement of Problem:** Despite the benefits of GPT in education, there have been claims that it may harm the education system. For example:
  - Zhai (2022) asserted that ChatGPT may facilitate academic dishonesty and impact learning experiences negatively. Similarly, Anderson et al. (2023) and García-Peñalvo (2023) claimed that AI is disrupting education with rapid advancements.

- **Statement of Problem/Potential Issues:** Therefore, based on the aforementioned, it is presumed that GPT may retard students and academic staff creativity, and so, there is a need to understand how this technology influences creativity in academic settings.

Introduction (Continued)

Having stated the problem/potential issues;	
The study's objectives are to:	While the hypotheses are:
➢ Assess the relationship between the perceived usefulness of GPT technology and creativity.	There is no relationship between perceived usefulness and creativity.
➢ Examine the relationship between the perceived ease of use of GPT technology and creativity.	There is no relationship between perceived ease of use and creativity.

Literature Review

- **Theoretical Framework:** Furthermore, the objectives and hypotheses were based on the Technological Acceptance Model developed by Davis in 1989.
- **Brief Empirical Studies and Evidence:** Also, the benefits and challenges of ChatGPT were reported in some previous research. For example:

- Dahri et al. (2024) and Elkhodr et al. (2023) found that students and academics show high acceptance for its role in enhancing learning and research processes. Iqbal et al. (2022) also reported that faculty acknowledged the benefits of GPT in lesson planning but expressed concerns about academic integrity.

Methods

- **Research Design and population:** To collect the needed data, the study adopted a survey research design while the population for the study was the students and staff of Thomas Adewumi University.
- **Study Sample and Technique:** In addition, the sample comprises the students and academic staff of the faculty of management and social sciences, a probability sampling technique was adopted, and the sample size (96) was estimated using Taro Yamane's formula.
- **Types of Data and Method of Validation:** Primary data collected through Google Forms was utilized while the data was validated by enabling the form "required" button for each of the questions.
- **Model and Analysis:** Finally, the model stands as **CRTY=** β0+ β1**PUF+** β2P**EOU +** U while PLS-SEM analysis was conducted.

Results

- Having stated the methods, the primary results of the analysis were obtained from the SEM analysis. Other secondary analyses include:
  - Socio-demographics (to see respondents characteristics).
  - Multicollinearity (to prevent the inclusion of duplicate variables).
  - Measurement Model (to see the goodness of fit indices, factor loadings, Cronbach's alpha, composite reliability and the construct).
- Furthermore, the SEM analysis produced three results (R-square, F-square, and path coefficients), as shown in the next slide.

Here are the: Figure and Tables from the SEM Analysis

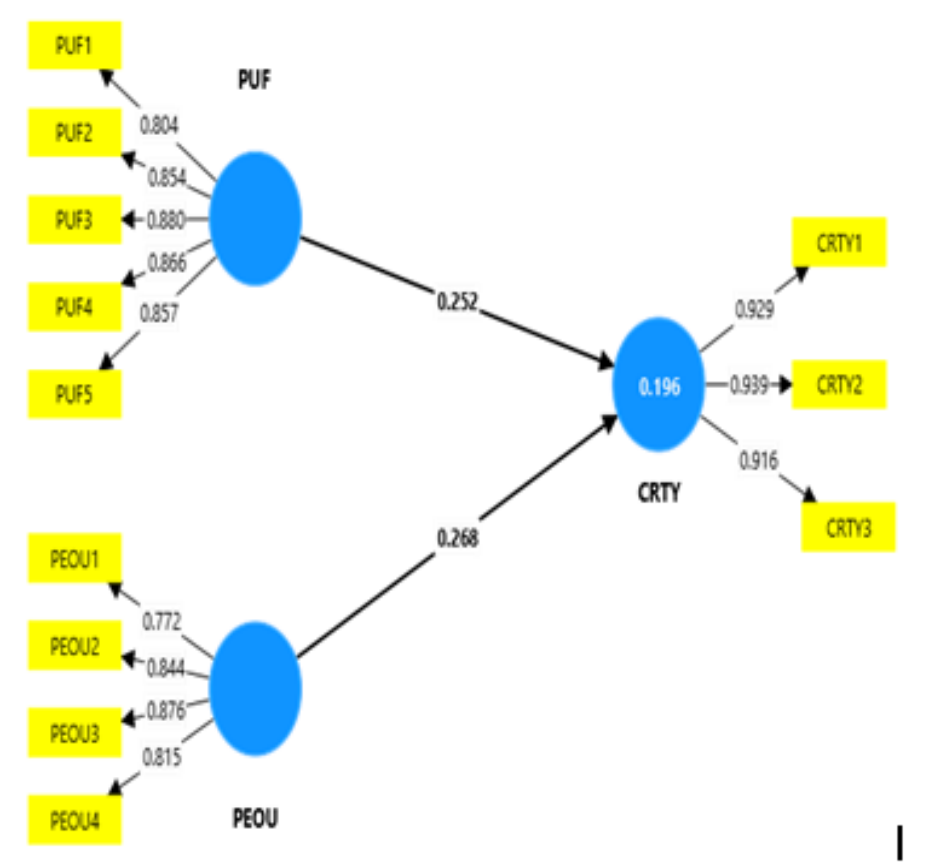

Table 5 Perceived Usefulness of GPT Technology and Creativity

Relationships	Path Coefficients	t-values	p-values
PUF1 → PUF	0.227	4.719	0.000
PUF2 → PUF	0.248	8.089	0.000
PUF3 → PUF	0.235	6.939	0.000
PUF4 → PUF	0.233	2.936	0.000
PUF5 → PUF	0.229	5.613	0.000
PUF → CRTY	**0.252**	**7.565**	**0.000**

Note: *** Significant at statistical level p<0.05, and t>1.96

Table 6 Perceived Ease of Use of GPT Technology and Creativity

Relationships	Path Coefficients	t-values	p-values
PEOU1 → PEOU	0.283	9.314	0.000
PEOU2 → PEOU	0.309	5.101	0.000
PEOU3 → PEOU	0.326	9.832	0.000
PEOU4 → PEOU	0.288	3.387	0.000
PEOU → CRTY	**0.268**	**6.852**	**0.000**

Note: *** Significant at statistical level p<0.05, and t>1.96

Discussion

- **R-square:** As can be seen in the analysis figure and tables, the actual R-square is 0.196 and this indicates that 19.6% of the variations in the creativity are explained by GPT technology. Also, R-square value less than 0.25 is considered a weak effect (Hair *et al*,2017).

- **F-value:** Furthermore, the F-value for PUF is 0.063, and the one for PEOU is 0.071. Meanwhile, F values below 0.15 are weak, between 0.15 and 035 are moderate, and above 0.35 are strong.

- **Test of Hypotheses:** Finally, the relationship between PUF and creativity is significant since the p-value is < than 0.05. Also, that of PEOU and creativity is significant since the p-value is < than 0.05.

Conclusion and Recommendations

- **Conclusion:** In summary, the study concluded that the use of GPT technology enhances learning in that it helps to improve creativity in students and lecturers.

- **Recommendations:** Also, due to the weak effects of PUF and PEOU on creativity, the study recommended that:

- Students and lecturers should use GPT technology in collaboration with effective teaching and brainstorming methods.
- In addition, lecturers should leverage GPT to generate new ideas and enhance academic tasks, but integrate it with other creative and educational strategies.

The End!