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Awareness, Perception and Efficacy of ChatGPT as a Disruptive Educational Tool: A Study of Sharda University Students and Teachers

Wandiereko Mercy Egolet[1]
[1]School of Education, Sharda University,
Greater Noida, India

Dr. Arti Koul Kachroo[2] (Professor)
[2]School of Education, Sharda University,
Greater Noida, India

Abstract:- This study investigates the awareness and perceptions of ChatGPT among a sample of 300 students and 50 teachers at Sharda University, employing the Unified Theory of Acceptance and Use of Technology (UTAUT) as the theoretical framework. Through the application of descriptive statistics and ANOVA analyses, the research aims to elucidate the multidimensional landscape surrounding ChatGPT integration in educational contexts.

The objectives encompass (i) assessing the level of awareness among Sharda University students and teachers about ChatGPT, (ii) exploring their perceptions towards ChatGPT concerning demographic variables like age, gender, program affiliation, and years of studying/teaching, and (iii) proposing recommendations and strategies for optimizing the integration of ChatGPT into teaching and learning processes.

The findings reveal varying levels of awareness and significant differences in perceptions across demographic variables, highlighting the importance of tailored implementation strategies and targeted promotional efforts guided by the UTAUT framework. Additionally, identified potential benefits, challenges, and concerns offer valuable insights into the complexities of ChatGPT integration, informing future research endeavours and strategic decision-making in educational settings within the UTAUT framework.endeavors.

Keywords:- *Artificial Intelligence (AI), Higher Education, ChatGPT, Education.*

I. INTRODUCTION

Disruptive technologies are innovations that significantly alter market behavior, operations, and societal or economic conventions. In education, examples include online learning, AI, VR, AR, MOOCs, and IoT. Christensen predicted that such technologies would eventually transform higher education, gradually phasing out traditional educational models. The National Education Policy (2020) acknowledges AI's disruptive potential and its capacity to enhance education by matching or exceeding human abilities.

AI, defined as machines simulating human intelligence, has a growing role in education, offering personalized, inclusive learning experiences through tools like virtual assistants and automated assessments. ChatGPT, a prominent AI tool, is increasingly used in higher education for teaching, learning, research, and communication. However, its impact on educational goals, such as reducing inequality and ensuring fair assessments, raises concerns among educators. Understanding stakeholders' awareness and perceptions of ChatGPT is vital for its effective integration into education. This research aims to assess the awareness, perception, and efficacy of ChatGPT as a disruptive technology among Sharda University students and teachers, guiding informed decision-making in higher education.

➢ *Significance of the Study*

In an era of rapidly evolving educational technologies, understanding the attitudes of teachers and students toward AI tools like ChatGPT is crucial. This study aims to fill a gap in the literature by examining the awareness, perception, and efficacy of ChatGPT among Sharda University students and teachers. While existing research highlights the benefits of AI in education, few studies focus on specific institutions. By assessing ChatGPT's impact, this research can inform strategic decisions for integrating AI into curricula, contributing to educational innovation and aligning with policy goals such as NEP 2020 and the G20's emphasis on responsible AI use in education.

➢ *Problem Statement*

The integration of artificial intelligence (AI) technologies, particularly natural language processing tools like ChatGPT, has garnered significant attention in educational settings globally (Ezen-Can, 2021; Hao, 2020). However, despite its potential to revolutionize teaching and learning experiences, there remains a paucity of research investigating the awareness, perception, and efficacy of ChatGPT as a disruptive educational tool among teachers and students in higher education institutions. This gap in understanding hampers the development of informed strategies for the effective integration of AI technologies in education (Clark & Jain, 2020; Thaler et al., 2021). Therefore, this study aims to address this gap by examining how teachers and students at perceive and utilize ChatGPT in their teaching and learning practices. By exploring the challenges and opportunities associated with ChatGPT adoption, this research seeks to provide valuable insights that can inform

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evidence-based decision-making and contribute to the advancement of AI integration in education.

II. LITERATURE REVIEW

The research by Menucha (2023) investigates the impact of chatbots like ChatGPT on education, highlighting both their potential to enhance learning and the risks of improper usage. The study stresses the importance of understanding these challenges to integrate chatbots effectively into educational settings. Similarly, Limna et al. explore educators' and students' perceptions of ChatGPT, noting positive views on its ability to reduce workloads and provide immediate feedback, but also concerns about information accuracy and reduced personal interaction.

Javaid et al. (2023) and Elbanna& Armstrong (2024) focus on ChatGPT's transformative potential in education, particularly in personalized learning and efficiency. While they acknowledge ChatGPT's benefits, they also emphasize the need to address limitations like factual inaccuracies and ethical concerns. Cukurova et al. (2023) explore factors influencing AI adoption in education, stressing the importance of teacher acceptance and professional development. Similarly, Medina-Romero et al. (2023) examine the ethical implications of ChatGPT in higher education, revealing mixed opinions on accessibility and ethical considerations, especially in Latinoamerican contexts.

Strzelecki (2023) and Alimi et al. (2021) investigate the acceptance of ChatGPT among students, identifying key predictors like habit and performance expectancy. They highlight the need for broader, longitudinal research to understand ChatGPT's impact on higher education. Ma and Siau (2018) emphasize the need for higher education to adapt to AI, while Alkahtani&Aldayel (2021) examine students' awareness of AI, offering insights into the current state of AI literacy.

Mansor et al. (2022) and Rasul et al. (2023) investigate AI awareness among students and the role of ChatGPT in higher education, respectively. Both studies highlight the potential benefits of AI in education but also emphasize challenges like academic integrity and the need for responsible AI integration. Njogu (2023) explores the practical use of AI in higher education, particularly in the global south, stressing the importance of considering stakeholders' opinions in AI development.

Knox (2020) and Slepankova (2021) examine the political and economic factors influencing AI adoption in education and the acceptability of AI chatbots among students, respectively. Their findings underscore the importance of understanding the broader context of AI integration in education. Iqbal et al. (2022) investigate faculty attitudes towards ChatGPT in Pakistan, revealing concerns about cheating and the need for more information on AI tools.

Abdaljaleel et al. (2023) explore the factors influencing ChatGPT usage among university students in Arab countries, validating the "TAME-ChatGPT" tool for assessing ChatGPT adoption. Finally, Aleksić-Maslać et al. (2024) and Saritha et al. (2024) examine ChatGPT's perception and usage in education, highlighting its utility but also concerns about ethics and critical thinking. These studies collectively emphasize the need for careful consideration of ChatGPT's benefits and limitations in educational contexts.

III. METHODOLODY

- *Research Design*

This study used a qualitative research design. It will use both qualitative data to provide a comprehensive understanding of awareness, perception and efficacy of ChatGPT as an education disruptive tool.

- *Sample Selection*

A stratified random sampling process was employed to ensure a representative and diverse sample. The total population of 591 faculty members and over 13,000 students was stratified into two main groups: faculty members and students. A sample size of approximately 385 was determined using the formula for sample size calculation for a simple random sample, considering a 95% confidence level, a margin of error of 5%, and a conservative estimated proportion of 0.5.

Random sampling within each stratum was conducted, ensuring every individual has an equal chance of selection. For faculty members, random selection will consider departments, and number of years taught at Sharda University. For students, the random selection process encompassed various academic disciplines and years of study. The selected sample was invited to participate in the survey which was out online.

- *Data Collection Instruments*

Close ended survey questionnaires were constructed for the study, for teachers and students of Sharda University. Both the questionnaires were divided into two parts. Part A of the questionnaire gathers demographic details of the respondent. Part B of the questionnaire is adopted for UTAUT tool (Venketesh et al, 2009) that measures the awareness and perception of ChatGPT.

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IV. DATA ANALYSIS AND RESULTS

- *Data Presentation and Analysis*

- *Objective One*

To study the awareness of Sharda University students and teachers about ChatGPT

- *Students*

Table 1 The Levels of awareness of Sharda University Students about ChatGPT

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PE	300	5	3805	25.28	218.663	17.331	.140	300.572	.280
EE	300	5	3658	24.31	210.211	17.332	.140	300.597	.280
SI	300	5	4321	28.71	248.281	17.338	.140	300.743	.280
FC	300	5	4400	29.24	252.810	17.340	.140	300.790	.280
Valid N (listwise)	300								

Table 1, showcases the data related to Performance Expectancy (PE), Effort Expectance (EE), Social Influence (SI), and Facilitating Conditions (FC) within the UTAUT Model, concerning the awareness of ChatGPT among Sharda University students. The data reveals averages and standard deviations for each factor: PE has an average of 25.28 with a standard deviation of 218.663, EE averages 24.31 with a standard deviation of 210.211, SI shows an average of 28.71 with a standard deviation of 248.281, and FC has an average of 29.24 with a standard deviation of 252.810. The high skewness and kurtosis values suggest that there are some very high perceptions regarding these factors among the respondents, indicating a strong awareness of ChatGPT among students at Sharda University.

- *Teachers*

Table 2 The Levels of Awareness of Sharda University Teachers about ChatGPT

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PE	51	8	571	22.39	78.430	7.121	.333	50.798	.656
EE	51	10	500	19.61	68.614	7.141	.333	51.000	.656
SI	51	9	539	21.14	74.004	7.130	.333	50.889	.656
FC	51	10	634	24.86	87.035	7.133	.333	50.917	.656
Valid N (listwise)	51								

The descriptive statistics provided in the table summarize the awareness levels for each aspect of ChatGPT: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC).

For PE, EE, SI, and FC, the data ranges from a minimum to a maximum score, indicating the full spectrum of awareness levels observed. The mean values represent the average awareness scores, with PE at 22.39, EE at 19.61, SI at 21.14, and FC at 24.86. The standard deviations show the extent of variation around these mean scores, with higher values indicating greater variability in awareness levels.

Additionally, skewness and kurtosis values provide insights into the distribution of awareness scores. Positive skewness values suggest that the distribution is slightly skewed to the right, indicating a higher concentration of scores towards the lower end of the scale, but with some higher awareness scores pulling the mean towards the right. Similarly, kurtosis values suggest a slightly peaked distribution, indicating that awareness scores are clustered around the mean, but with some variability in the tails.

- *Objective Two*

To explore the perceptions of Sharda University students and teachers towards ChatGPTwith respect to age, gender, programme affiliated with and years of studying/ teaching at Sharda University.

- *Students*
- *Age*

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Table 3 Shows Perceptions of Sharda University Students towards ChatGPTwith Respect to Age

ANOVA						
		Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
PE/ Student	Between Groups	1074.507	2	537.253	17.662	.000
	Within Groups	9034.410	297	30.419		
	Total	10108.917	299			
EE/ student	Between Groups	141.954	2	70.977	2.436	.089
	Within Groups	8654.832	297	29.141		
	Total	8796.787	299			
SI/student	Between Groups	22.134	2	11.067	.422	.656
	Within Groups	7792.063	297	26.236		
	Total	7814.197	299			
FC/Student	Between Groups	30.305	2	15.152	.682	.506
	Within Groups	6594.362	297	22.203		
	Total	6624.667	299			

Table 3 presents the results of an ANOVA analysis examining these perceptions with respect to age.

For "Performance Expectancy" the ANOVA results indicate a significant difference among age groups ($F(2, 297) = 17.662$, $p < .001$), suggesting that perceptions of ChatGPT vary significantly across different age groups.

However, for "Effort Expectancy" the ANOVA results do not show a significant difference among age groups ($F(2, 297) = 2.436$, $p = .089$), indicating that perceptions of effort expectancy are not significantly influenced by age.

Similarly, for "Social Influence" and "Facilitating Conditions" the ANOVA results do not reveal significant differences among age groups (SI: $F(2, 297) = 0.422$, $p = .656$; FC: $F(2, 297) = 0.682$, $p = .506$), suggesting that perceptions of social influence and facilitating conditions are not significantly affected by age.

Overall, these findings indicate that age may influence perceptions of performance expectancy regarding ChatGPT among Sharda University students, but it does not significantly impact perceptions of effort expectancy, social influence, or facilitating conditions.

- *Gender*

Table 4 Shows Perceptions of Sharda University Students and Teachers towards ChatGPTwith Respect to Gender

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE/ Student	Between Groups	366.642	1	366.642	11.215	.001
	Within Groups	9742.275	298	32.692		
	Total	10108.917	299			
EE/ student	Between Groups	1.395	1	1.395	.047	.828
	Within Groups	8795.391	298	29.515		
	Total	8796.787	299			
SI/student	Between Groups	56.177	1	56.177	2.158	.143
	Within Groups	7758.020	298	26.034		
	Total	7814.197	299			
FC/Student	Between Groups	129.018	1	129.018	5.919	.016
	Within Groups	6495.649	298	21.797		
	Total	6624.667	299			

Table 4 presents the results of ANOVA analyses examining these perceptions with respect to gender.

For "Performance Expectancy" the ANOVA results reveal a significant difference between genders ($F (1, 298) = 11.215$, $p = .001$), indicating that perceptions of ChatGPT's performance expectancy vary significantly between male and female respondents.

However, for "Effort Expectancy" "Social Influence" and "Facilitating Conditions" the ANOVA results do not show significant differences between genders (EE: $F(1, 298) = 0.047$, $p = .828$; SI: $F(1, 298) = 2.158$, $p = .143$; FC: $F(1, 298) = 5.919$, $p = .016$). This suggests that perceptions of effort expectancy, social influence, and facilitating conditions regarding ChatGPT are not significantly influenced by gender.

While gender may impact perceptions of performance expectancy concerning ChatGPT among Sharda University students and teachers, it does not significantly affect perceptions of effort expectancy, social influence, or facilitating conditions.

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➢ *Programme Affiliated with*

Table 5 Presents the Results of ANOVA Analyses Examining these Perceptions with Respect to Programme affiliated with

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE	Between Groups	674.078	4	168.519	5.269	.000
	Within Groups	9434.839	295	31.983		
	Total	10108.917	299			
EE	Between Groups	954.327	4	238.582	8.974	.000
	Within Groups	7842.460	295	26.585		
	Total	8796.787	299			
SI	Between Groups	100.738	4	25.184	.963	.428
	Within Groups	7713.459	295	26.147		
	Total	7814.197	299			
FC	Between Groups	460.057	4	115.014	5.504	.000
	Within Groups	6164.609	295	20.897		
	Total	6624.667	299			

Table 5 presents the results of ANOVA analyses examining these perceptions with respect to the program affiliation.

For "Performance Expectancy (PE)," the ANOVA results reveal a significant difference among program affiliations ($F(4, 295) = 5.269$, $p < .001$), indicating that perceptions of ChatGPT's performance expectancy vary significantly across different programs.

Similarly, for "Effort Expectancy (EE)" and "Facilitating Conditions (FC)," the ANOVA results also show significant differences among program affiliations (EE: $F(4, 295) = 8.974$, $p < .001$; FC: $F(4, 295) = 5.504$, $p < .001$). This suggests that perceptions of effort expectancy and facilitating conditions regarding ChatGPT significantly differ across various programs.

However, for "Social Influence (SI)," the ANOVA results do not indicate a significant difference among program affiliations ($F(4, 295) = 0.963$, $p = .428$). This suggests that perceptions of social influence regarding ChatGPT are not significantly influenced by the program affiliation.

In summary, perceptions of performance expectancy, effort expectancy, and facilitating conditions concerning ChatGPT significantly vary across different programs at Sharda University. However, perceptions of social influence do not significantly differ among program affiliations.

➢ *Number of Years Studied at Sharda University.*

Table 6 Presents the Results of ANOVA analyses Examining these Perceptions with Respect to Number of Years Studied at Sharda University.

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE	Between Groups	182.876	2	91.438	2.736	.066
	Within Groups	9926.041	297	33.421		
	Total	10108.917	299			
EE	Between Groups	490.494	2	245.247	8.769	.000
	Within Groups	8306.293	297	27.967		
	Total	8796.787	299			
SI	Between Groups	88.840	2	44.420	1.708	.183
	Within Groups	7725.356	297	26.011		
	Total	7814.197	299			
FC	Between Groups	242.164	2	121.082	5.634	.004
	Within Groups	6382.503	297	21.490		
	Total	6624.667	299			

Table 6 presents the results of ANOVA analyses examining these perceptions with respect to the number of years studied at Sharda University.

For "Performance Expectancy (PE)," the ANOVA results do not show a significant difference among the number of years studied at Sharda University ($F(2, 297) = 2.736$, $p = .066$). This suggests that perceptions of ChatGPT's performance expectancy do not significantly vary based on the number of years studied.

However, for "Effort Expectancy (EE)" and "Facilitating Conditions (FC)," the ANOVA results indicate significant differences among the number of years studied

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(EE: F(2, 297) = 8.769, p < .001; FC: F(2, 297) = 5.634, p = .004). This suggests that perceptions of effort expectancy and facilitating conditions regarding ChatGPT significantly differ depending on the number of years studied at Sharda University.

Similarly, for "Social Influence (SI)," the ANOVA results do not reveal a significant difference among the number of years studied (F(2, 297) = 1.708, p = .183). This suggests that perceptions of social influence regarding ChatGPT are not significantly influenced by the number of years studied at Sharda University.

While perceptions of effort expectancy and facilitating conditions concerning ChatGPT significantly vary based on the number of years studied at Sharda University, perceptions of performance expectancy and social influence do not show significant differences.

- *Teachers*
- *Age*

Table 7 Shows Perceptions of Sharda University Teachers towards ChatGPTwith Respect to Age

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE	Between Groups	458.737	3	152.912	60.930	.000
	Within Groups	115.443	46	2.510		
	Total	574.180	49			
EE	Between Groups	.000	3	.000	.	.
	Within Groups	.000	46	.000		
	Total	.000	49			
SI	Between Groups	252.137	3	84.046	135.924	.000
	Within Groups	28.443	46	.618		
	Total	280.580	49			
FC	Between Groups	59.290	3	19.763	3.960	.014
	Within Groups	229.590	46	4.991		
	Total	288.880	49			

Table 7 presents the results of ANOVA analyses examining these perceptions with respect to age.

For "Performance Expectancy (PE)" and "Social Influence (SI)," the ANOVA results reveal significant differences among different age groups (PE: F(3, 46) = 60.930, p < .001; SI: F(3, 46) = 135.924, p < .001). This suggests that perceptions of ChatGPT's performance expectancy and social influence significantly vary across different age groups among Sharda University teachers.

However, for "Effort Expectancy (EE)," the ANOVA results indicate no significant differences among different age groups (F(3, 46) = ., p = .). This suggests that perceptions of effort expectancy regarding ChatGPT do not significantly differ across age groups among Sharda University teachers.

For "Facilitating Conditions (FC)," the ANOVA results also reveal significant differences among different age groups (F(3, 46) = 3.960, p = .014). This suggests that perceptions of facilitating conditions concerning ChatGPT vary significantly across different age groups among Sharda University teachers.

Perceptions of performance expectancy, social influence, and facilitating conditions concerning ChatGPT significantly vary based on age among Sharda University teachers. However, perceptions of effort expectancy do not show significant differences across age groups.

➢ *Objective Two*

To explore the perceptions of Sharda University students and teachers towards ChatGPTwith respect to gender.

- *Gender*

Table 8 Shows Perceptions of Sharda University Teachers towards ChatGPTwith Respect to Gender

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE	Between Groups	.116	1	.116	.010	.922
	Within Groups	574.064	48	11.960		
	Total	574.180	49			
EE	Between Groups	.000	1	.000	.	.
	Within Groups	.000	48	.000		
	Total	.000	49			
SI	Between Groups	.006	1	.006	.001	.975
	Within Groups	280.574	48	5.845		

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	Total	280.580	49			
FC	Between Groups	4.933	1	4.933	.834	.366
	Within Groups	283.947	48	5.916		
	Total	288.880	49			

Table 8 presents the results of ANOVA analyses examining these perceptions with respect to gender among teachers.

For "Performance Expectancy " "Effort Expectancy" "Social Influence (SI)/Faculty," and "Facilitating Conditions" the ANOVA results do not show significant differences between genders (PE: F(1, 48) = 0.010, p = .922; EE: F(1, 48) = ., p = .; SI: F(1, 48) = .001, p = .975; FC: F(1, 48) = .834, p = .366). This suggests that perceptions of performance expectancy, effort expectancy, social influence, and facilitating conditions regarding ChatGPT do not significantly vary based on gender among Sharda University teachers.

Therefore gender does not appear to have a significant influence on the perceptions of Sharda University teachers towards ChatGPT in terms of performance expectancy, effort expectancy, social influence, or facilitating conditions.

- *Programme Affiliated with*

Table 9 Shows Perceptions of Sharda University Teachers towards ChatGPTwith Respect to Programme affiliated with

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE	Between Groups	189.832	4	47.458	5.556	.001
	Within Groups	384.348	45	8.541		
	Total	574.180	49			
EE	Between Groups	.000	4	.000	.	.
	Within Groups	.000	45	.000		
	Total	.000	49			
SI	Between Groups	79.755	4	19.939	4.468	.004
	Within Groups	200.825	45	4.463		
	Total	280.580	49			
FC	Between Groups	15.103	4	3.776	.621	.650
	Within Groups	273.777	45	6.084		
	Total	288.880	49			

Table 9 presents the results of ANOVA analyses examining these perceptions with respect to program affiliation among teachers.

For "Performance Expectancy (PE)," the ANOVA results reveal significant differences among different programs (F(4, 45) = 5.556, p = .001), indicating that perceptions of ChatGPT's performance expectancy significantly vary across different programs among Sharda University teachers.

However, for "Effort Expectancy (EE)," the ANOVA results indicate no significant differences among different programs (F(4, 45) = ., p = .). This suggests that perceptions of effort expectancy regarding ChatGPT do not significantly differ across programs among Sharda University teachers.

For "Social Influence (SI)," the ANOVA results also reveal significant differences among different programs (F(4, 45) = 4.468, p = .004). This suggests that perceptions of social influence concerning ChatGPT vary significantly across different programs among Sharda University teachers.

Similarly, for "Facilitating Conditions (FC)," the ANOVA results do not indicate significant differences among different programs (F(4, 45) = .621, p = .650). This suggests that perceptions of facilitating conditions regarding ChatGPT do not significantly vary across programs among Sharda University teachers.

Therefore perceptions of performance expectancy and social influence concerning ChatGPT significantly vary based on the program affiliation among Sharda University teachers. However, perceptions of effort expectancy and facilitating conditions do not show significant differences across programs.

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➢ *Years Studied at Sharda University*

Table 10 Shows Perceptions of Sharda University Teachers towards ChatGPTwith Respect to years taught at Sharda University

ANOVA						
		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
PE	Between Groups	464.547	2	232.273	99.576	.000
	Within Groups	109.633	47	2.333		
	Total	574.180	49			
EE	Between Groups	.000	2	.000	.	.
	Within Groups	.000	47	.000		
	Total	.000	49			
SI	Between Groups	253.811	2	126.906	222.819	.000
	Within Groups	26.769	47	.570		
	Total	280.580	49			
FC	Between Groups	43.664	2	21.832	4.185	.021
	Within Groups	245.216	47	5.217		
	Total	288.880	49			

Table 10 presents the results of ANOVA analyses examining these perceptions with respect to years taught among teachers.

For "Performance Expectancy (PE)," "Social Influence (SI)," and "Facilitating Conditions (FC)," the ANOVA results reveal significant differences among different years taught at Sharda University (PE: $F(2, 47) = 99.576$, $p < .001$; SI: $F(2, 47) = 222.819$, $p < .001$; FC: $F(2, 47) = 4.185$, $p = .021$). This suggests that perceptions of ChatGPT's performance expectancy, social influence, and facilitating conditions significantly vary across different years taught among Sharda University teachers.

However, for "Effort Expectancy (EE)," the ANOVA results indicate no significant differences among different years taught ($F(2, 47) = ., p = .$). This suggests that perceptions of effort expectancy regarding ChatGPT do not significantly differ across different years taught among Sharda University teachers.

In summary, perceptions of performance expectancy, social influence, and facilitating conditions concerning ChatGPT significantly vary based on the number of years taught at Sharda University among teachers. However, perceptions of effort expectancy do not show significant differences across different years taught.

➢ *Objective Three*

To propose recommendations and strategies for optimizing the integration of ChatGPT into teaching and learning processes

- *Tailored Training Programs:*

Develop tailored training programs for teachers based on their years of experience at Sharda University. Research suggests that providing targeted professional development opportunities can enhance educators' confidence and competence in integrating AI technologies like ChatGPT into their pedagogical practices (McEwen et al., 2020). For instance, Stanford University's Teaching Commons offers specialized workshops and online resources tailored to educators' needs, fostering effective technology integration (Stanford Teaching Commons, n.d.).

- *Program-Specific Implementation Plans:*

Design program-specific implementation plans to cater to the unique needs and contexts of different academic disciplines at Sharda University. Studies have shown that customization of technology integration strategies based on disciplinary requirements can lead to more successful outcomes (Johnson et al., 2018). For example, Harvard University's Initiative for Learning and Teaching collaborates with faculty members to develop discipline-specific approaches for integrating AI tools like ChatGPT into course curricula (Harvard University Initiative for Learning and Teaching, n.d.).

- *Promotion of Positive Perceptions:*

Actively promote the benefits and effectiveness of ChatGPT integration to encourage widespread adoption among students and teachers. Research conducted at institutions like Massachusetts Institute of Technology (MIT) has demonstrated the positive impact of AI technologies on student engagement and learning outcomes (MIT Teaching Systems Lab, n.d.). By showcasing successful case studies and testimonials from faculty and students, Sharda University can build confidence and enthusiasm for ChatGPT integration.

Addressing Concerns: Address concerns and barriers identified through data analysis, such as variations in perceptions across different age groups and genders. Collaborate with institutions like University of California, Berkeley, which has implemented inclusive AI education initiatives to address gender and diversity disparities in technology adoption (UC Berkeley Division of Data Sciences, n.d.). By prioritizing diversity and inclusivity in ChatGPT integration efforts, Sharda University can create a more equitable learning environment for all students.

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- *Continuous Evaluation and Improvement:*

Establish mechanisms for continuous evaluation and improvement of ChatGPT integration. Draw insights from institutions like Columbia University's Center for Teaching and Learning, which conducts ongoing assessments of technology-enhanced teaching practices to inform iterative improvements (Columbia Center for Teaching and Learning, n.d.). By collecting feedback from stakeholders and monitoring key performance indicators, Sharda University can refine its implementation strategies and enhance the overall effectiveness of ChatGPT integration.

- *Professional Development Opportunities:*

Offer ongoing professional development opportunities for students and teachers to enhance their skills in using ChatGPT effectively. Emulate the practices of institutions like University of Michigan's Center for Research on Learning and Teaching, which provides workshops and seminars on AI literacy and educational technology usage (University of Michigan Center for Research on Learning and Teaching, n.d.). By investing in AI literacy initiatives, Sharda University can empower its community members to leverage ChatGPT for diverse educational purposes.

- *Collaborative Partnerships:*

Foster collaborative partnerships with industry experts and technology providers to stay abreast of advancements in ChatGPT technology and best practices in its integration into educational settings. Learn from initiatives such as the Partnership on AI, a multi-stakeholder coalition that facilitates dialogue and collaboration on AI ethics and governance (Partnership on AI, n.d.). By participating in collaborative research projects and knowledge-sharing initiatives, Sharda University can contribute to the advancement of AI education and benefit from insights shared by leading experts in the field.

V. CONCLUSION

In conclusion, it is apparent that the ChatGPT awareness and perceptions among Sharda University students and teachers vary at different levels as can be seen through detailed analysis of data. The findings reflect that there are many angles from which their views may be looked at in issues surrounding their performance expectancy, effort expectancy, social influence, facilitating conditions among others. These insights are consistent with existing literature on technology adoption and acceptance in educational settings (Davis, 1989; Venkatesh et al., 2003). Other people might have doubts or negative opinions about ChatGPT implementation unlike others who have positive attitudes towards it depicting what has been earlier expressed by AI technologies in education surveys (Wu et al., 2020).

Furthermore, this research presents possible advantages, disadvantages as well as worries related to ChatGPT thereby providing useful information for future integration attempts. With these factors identified, the authors stand a chance to deal with fears raised, utilize positive aspects and minimize drawbacks so as to make better use of ChatGPT integration.

VI. SUGGESTIONS FOR FUTURE RESEARCH

In order to understand the role of ChatGPT in educational contexts, there are various directions that future research could take. For example, longitudinal studies may be used to track how perceptions and use have changed over time as a way of bringing out the long-term implications of integrating ChatGPT on teaching and learning practices. Moreover, qualitative inquiries like focus group discussions and interviews would come in handy by offering more detailed information about why people think the way they do or have certain attitudes towards ChatGPT. More so, comparative studies carried out in different institutions and cross-cultural settings will disclose contextual influences on ChatGPT acceptance and utilization patterns. Lastly, research may look at novel pedagogical approaches for including ChatGPT into several educational settings to enhance its easy integration with other systems.

This study's overall contribution is therefore seen when its objectives are systematically tackled while recommendations for further research are made within it with regards to ChatGPTs' assimilation within academic environments. Therefore, this study's findings can help inform strategic planning, policy formulation as well as teaching methods that will ensure effective employment of ChatGPT leading to an improved learning process.

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