

USAGE AND SATISFACTION OF AI TOOLS BY SARDAR PATEL UNIVERSITY STUDENTS

MILIND KOKANI
KIRAN CHAVDA

ABSTRACT

This study explores how students at Sardar Patel University use artificial intelligence (AI) tools and their level of satisfaction. AI tools are increasingly integrated into both personal and academic domains their effects on students' educational experiences are being assessed. The study examines how students use AI tools and evaluates their general satisfaction, emphasizing perceived usefulness in improving academic achievement, efficacy, and ease of use. The results provide valuable insights into students' expectations, challenges, and preferences regarding AI technologies, with significant implications for students seeking to maximize AI integration in the classroom. This study contributes to the growing body of research on AI adoption in educational environments and its impact on students' learning outcomes."

KEY WORDS– ARTIFICIAL INTELLIGENCE, EDUCATION, LEARNING

INTRODUCTION

Modern technology is now an inevitable aspect of the cosmos. Not only is technology altering people's lifestyles, but it is also altering everything that has to do with the planet. Artificial intelligence (AI) has emerged as a component of contemporary schooling. Their educational experience is being enhanced by AI tools. As early adopters, university students make use of AI-powered tools to enhance their educational experiences that benefits the Commerce College students. This can be used as the basis for calculations in accounting and finance, as well as for the preparation of PowerPoint presentations and CSDS assignments, among other things. That Cam supports the pupils' academic growth and boosts their self-assurance in their schooling. AI presents a special chance to investigate its uses in fields including supply chain management, marketing tactics, financial modelling, and business analytics. Its capacity to analyse huge datasets, spot trends, and generate forecasts gives students the tools they need to meet the changing needs of the global economy. AI-powered learning platforms give pupils individualized instruction so they can learn difficult subjects at their own speed. Using resources like interactive simulations, adaptive tests, and virtual tutors, commerce students can interact with real-world business situations, developing their critical thinking and problem-solving abilities. Additionally, AI-driven knowledge of consumer trends and behaviour provides a competitive advantage, preparing students for real-world challenges.

REVIEW OF LITERATURE

1. (Shaengchart & Limna, 30 September, 2024) The factors impacting Thai college students' intention to use the AI chatbot Gemini are examined in this study. It investigates opinions of things like attitude, privacy issues, usefulness, ease of use, and enabling circumstances. Online surveys were used to gather information from 385 students, and descriptive and inferential statistics were used for analysis. The findings indicate that the intention to use Gemini is positively predicted by perceived utility and conducive circumstances, while privacy concerns also have an unanticipated beneficial impact. However, attitudes and simplicity of use have little

bearing on intentions to use. To promote AI chatbot use in education, the study emphasizes the necessity of highlighting useful advantages, helping, and addressing privacy concerns.

2. **(Pavlenko & Syzenko, 4 April, 2024)** This study investigates students' experiences and satisfaction using ChatGPT, an artificial intelligence learning tool, to assess its effects on higher education. According to a survey of 247 Ukrainian university students majoring in business, engineering, and information technology, ChatGPT is mostly used by students for language-related tasks including text editing and information retrieval. The results demonstrate a favourable opinion of ChatGPT's contribution to improving the quality of learning as well as high levels of satisfaction with its assistance with tasks and assignments. According to the study, universities should incorporate AI tools into their courses while providing guidance and emphasizing the development of students' effective AI usage abilities.
3. **(Nurjanah, Salsabila, Azzahra, Adelia, & Marlina, 3 March, 2024)** Examines the increasing use of artificial intelligence (AI) in education is examined in this review article, which emphasizes how it can improve both teaching and learning. Because AI can simulate human intelligence, learning can be tailored to everyone. The study focuses on the advantages of AI for language acquisition, demonstrating how it increases learning efficiency and offers practice opportunities and tailored feedback. The results help us comprehend how AI is changing educational paradigms and how it can revolutionize teaching and learning approaches.
4. **(Robert, Potter, & Frank, 1 February, 2024)** Examines by providing real-time assessments, feedback, and personalized information, AI integration in education can improve learning. AI-driven platforms, such as virtual assistants and teaching systems, encourage collaboration, while technologies like machine learning and data analytics increase motivation and engagement. But issues like ethics, privacy, and an excessive dependence on AI need to be handled. For learning to be meaningful, AI and human instruction must be balanced. In summary, artificial intelligence (AI) has the potential to revolutionize education, but its application must be done carefully to maintain student interaction and assure ethical use.
5. **(Fahimirad & Kotamjani, 10 November, 2018)** Examines the impact of artificial intelligence (AI) on higher education teaching and learning is examined in this conceptual overview. It looks at how new AI technologies are changing instructional strategies and the way students learn. The study makes predictions about AI's future in education and emphasizes how it could raise the calibre of instruction. It also discusses the difficulties in integrating AI in educational settings, such as problems with administration, instruction, learning, and student support. The article offers a summary of current research on artificial intelligence in education and makes recommendations for future lines of inquiry.

OBJECTIVE

1. To study the various AI tools used by Sardar Patel University students
2. To study the satisfaction and usage of AI tools by Sardar Patel University students

RESEARCH METHODOLOGY

The study uses primary data that was gathered from 212 respondents who completed a questionnaire. Convenience sampling was used, focusing on those who were readily available. The survey is split into two sections: the first asks about respondents' personal information and general demographics, while the second asks about their thoughts on AI tools. Direct data collection within the designated sample size was guaranteed by this method.

RESEARCH GAP

Previous research has primarily focused on reviewing AI in education, examining its role in teaching, and conducting surveys on students' perspectives, mostly at university or national levels. This study aims to explore AI's impact on learning at the college level, providing a deeper understanding of its applications. While many students still rely on traditional books, an increasing number are turning to AI tools for learning. This raises the question: Does AI genuinely enhance the student learning experience? To harness AI's potential in education, it is crucial to investigate its usage and effects on student outcomes. Consequently, several questions arise that warrant investigation by researchers.

1. What is the impact of AI tools in general academic performance, problem-solving abilities, and subject-matter understanding?
2. What is the impact of AI tools in critical thinking and analytical skills?

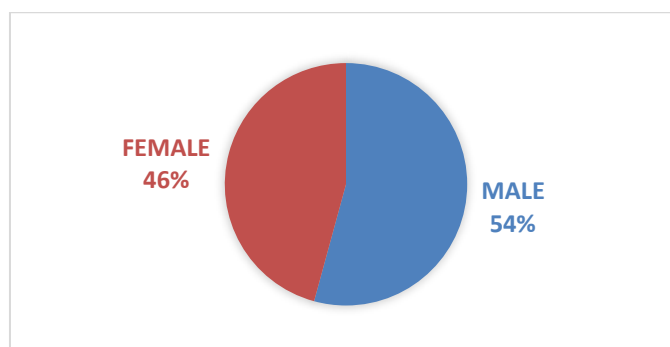
HYPOTHESIS OF THE STUDY

H_{01}	There is no significant difference of various AI tool used by Sardar Patel University students.
H_{02}	There is no significant difference of AI tool on Sardar Patel University student satisfaction level.

DATA ANALYSIS AND INTERPRETATION

Table No. 1.1 Gender			
GENDER	NO. RESPONDENTS	OF	PERCENTAGE (%)
MALE	112		54
FEMALE	96		46
TOTAL	208		100

Chart No. 1.1 Gender

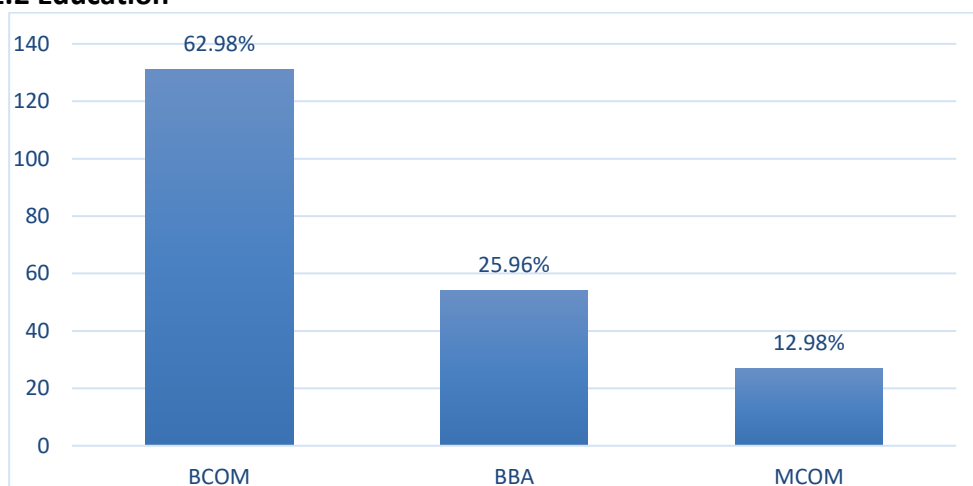


The above table shows the gender-wise classification of the respondents. 54% of the respondents were male, while 46% of the respondents were female.

Table No. 1.2 Education		
PARTICULAR	FREQUENCY	PERCENTAGE (%)
BCOM	131	62.98
BBA	54	25.96
MCOM	27	12.98

TOTAL	208	
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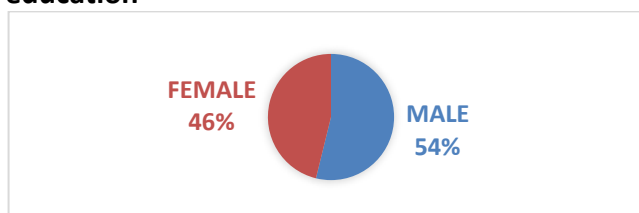
Chart No. 1.2 Education



Above table shows the qualification wise classification of the respondents. 62.98% of the respondents were from B.COM, 25.96% of the respondents were from BBA and 12.98% of the respondent were from M.COM.

Table No. 1.3 Helpful in education		
GENDER	NO. OF RESPONDENTS	PERCENTAGE (%)
MALE	112	54
FEMALE	96	46
TOTAL	208	100

Chart No. 1.3 Helpful in education

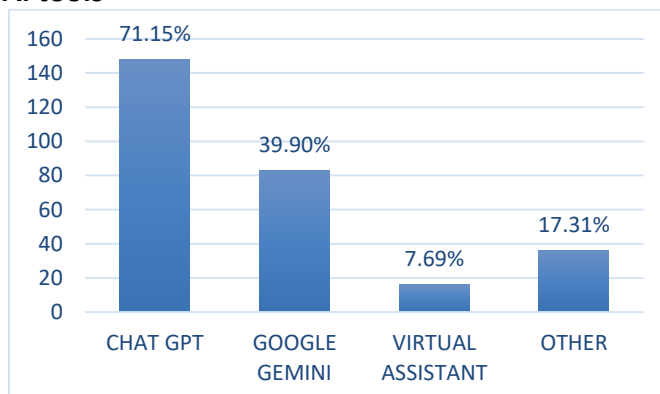


This data presents the distribution of respondents based on gender and how helpful AI tools have been in their academic activities. In total, there are 208 respondents, with 54% male and 46% female.

Table No. 1.4 Usage of AI tools		
PARTICULAR	FREQUENCY	PERCENTAGE (%)
CHAT GPT	148	71.15
GOOGLE GEMINI	83	39.90
VIRTUAL ASSISTANT	16	7.69
OTHER	36	17.31

TOTAL	208	
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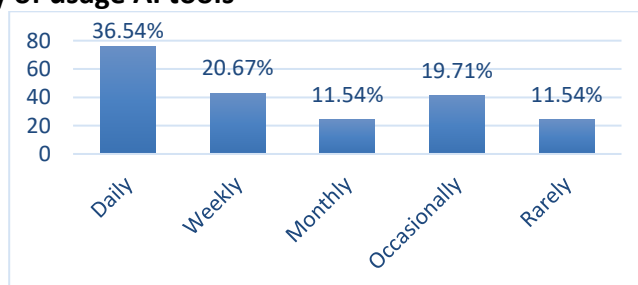
Chart No. 1.4 Usage of AI tools



This data shows how respondents were distributed according to the AI technologies they used. The fact that ChatGPT is used so extensively (71.15%) indicates that it is the most popular AI tool for academic work and other are Google Gemini (39.90%) and Virtual Assistant (7.69%) are less desirable tools. About 17.31% of other AI tools are used for academic purposes.

Table No. 1.5 Frequency of usage AI tools		
PARTICULAR	FREQUENCY	PERCENTAGE
Daily	76	36.54
Weekly	43	20.67
Monthly	24	11.54
Occasionally	41	19.71
Rarely	24	11.54
TOTAL	208	

Chart No. 1.5 Frequency of usage AI tools

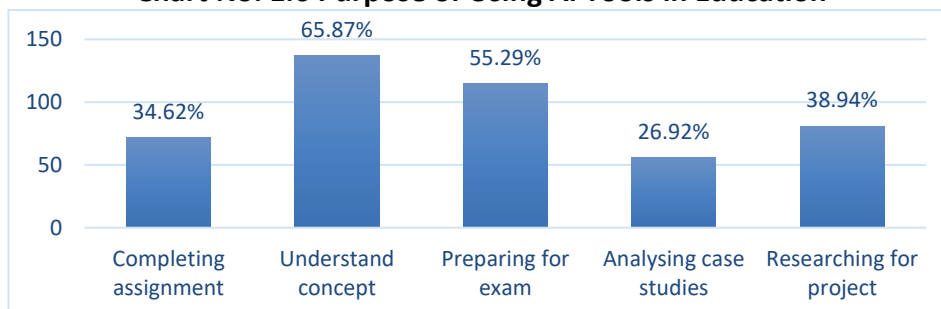


Most respondents (57.21%) use AI products often, with 20.67% using them weekly and 36.54% using them daily. This implies that these users' usual academic practices have a substantial incorporation of AI tools. About 42.79% of respondents use AI tools less frequently, while 19.71% rely on them occasionally. Similar shares use them monthly (11.54%) and infrequently (11.54%). These figures would suggest minimal reliance on AI for academic activities or selective requirements.

Table No. 1.6 Purpose of Using AI Tools in Education		
PURPOSE	FREQUENCY	PERCENTAGE (%)
Completing assignment	72	34.62
Understand concept	137	65.87
Preparing for exam	115	55.29

Analysing case studies	56	26.92
Researching for project	81	38.94
TOTAL	208	

Chart No. 1.6 Purpose of Using AI Tools in Education

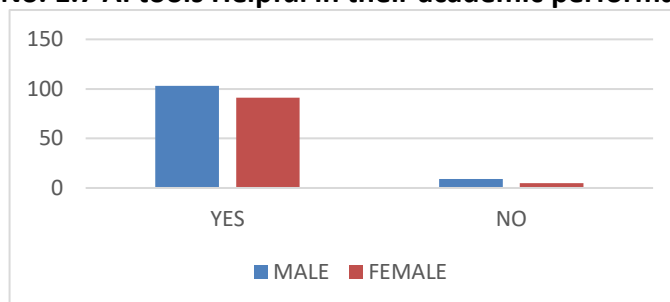


AI technologies' primary functions are learning and revision, which help in understanding concepts (65.87%) and for exam preparation (55.29%). Their usefulness in a variety of academic tasks is demonstrated by their further uses, which include completing assignments (34.62%), conducting research for projects (38.94%), and analysing case studies (26.92%).

Table No. 1.7 AI tools Helpful in their academic performance

GENDER	YES	NO	TOTAL
MALE	103	9	112
FEMALE	91	5	96

Chart No. 1.7 AI tools Helpful in their academic performance

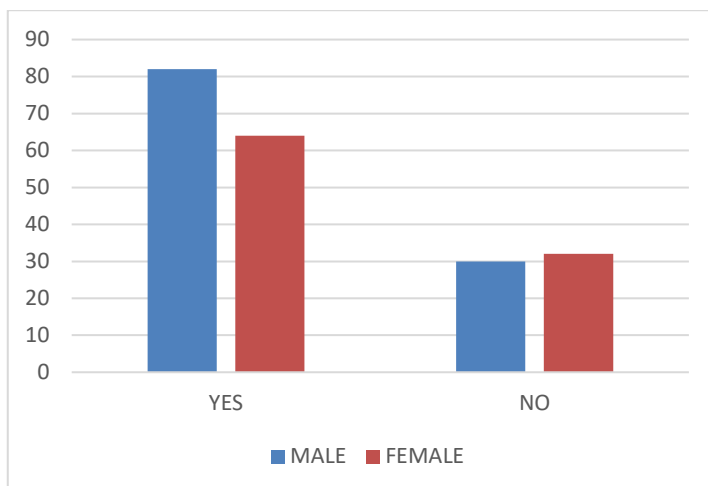


According to the above table, 103 (91.96%) of the 112 male respondents fully believe that using AI tools improves academic achievement. Similarly, 91 (93.81%) of the 96 female respondents said they utilize AI tools to improve their academic performance.

Table No. 1.8 AI tools reduce their critical thinking

GENDER	YES	NO	TOTAL
MALE	82	30	112
FEMALE	64	32	96

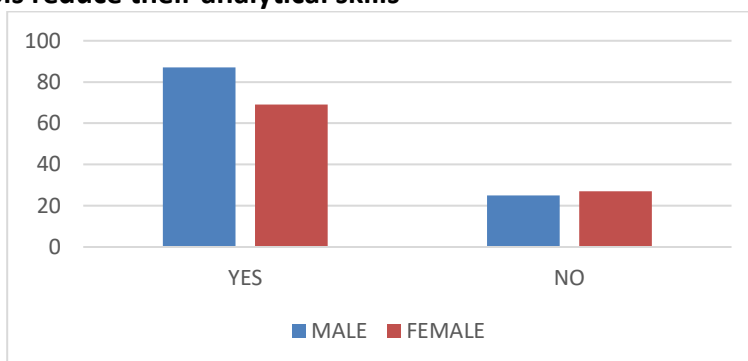
Chart No. 1.8 AI tools reduce their critical thinking



Most respondents, both male and female, feel that AI tools reduce critical thinking. This trend appears more strongly among males (82 out of 112, about 73%), while a slightly lower percentage of females (64 out of 96, about 67%) agree with this statement.

Table No. 1.9 AI tools reduce their analytical skill			
GENDER	YES	NO	TOTAL
MALE	87	25	112
FEMALE	69	27	96

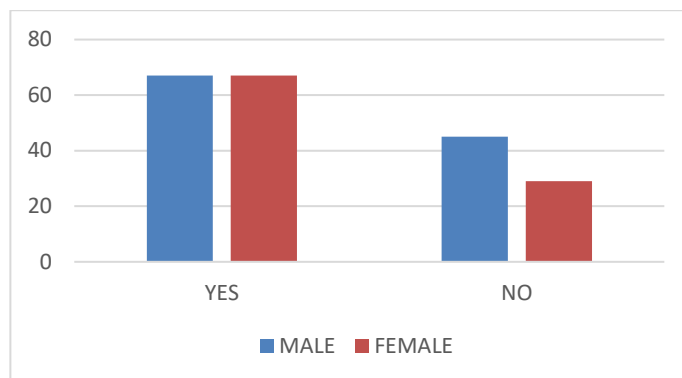
Chart No. 1.9 AI tools reduce their analytical skills



In comparison to the previous data on critical thinking (1.8), this question shows a similar trend—a higher proportion of male respondents feel negatively about AI tools reducing their cognitive abilities. However, both males (77.68%) and females (71.88%) still show a majority who feel that AI tools do indeed reduce their analytical skills as well as their critical thinking.

Table No. 1.10 usage of AI tools for assignments			
GENDER	YES	NO	TOTAL
MALE	67	45	112
FEMALE	67	29	96

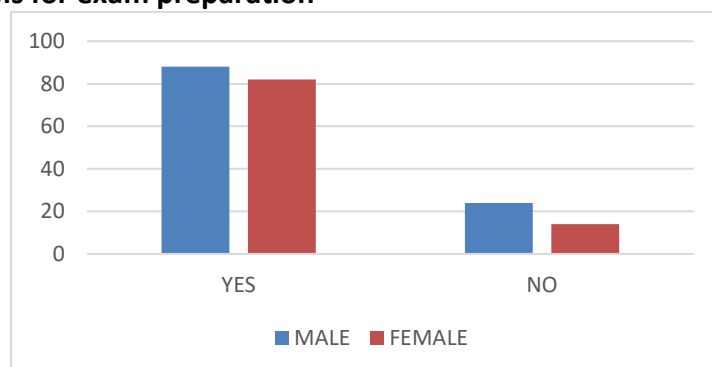
Chart No. 1.10 usage of AI tools for assignments



The data shows that 67 males and 67 females use AI tools for assignments, with a higher percentage of females (70%) using them compared to males (60%). Fewer males (40%) do not use AI tools, while 30% of females do not. Overall, 134 respondents use AI tools, and 74 do not.

Table No. 1.11 AI tools for exam preparation			
GENDER	YES	NO	TOTAL
MALE	88	24	112
FEMALE	82	14	96

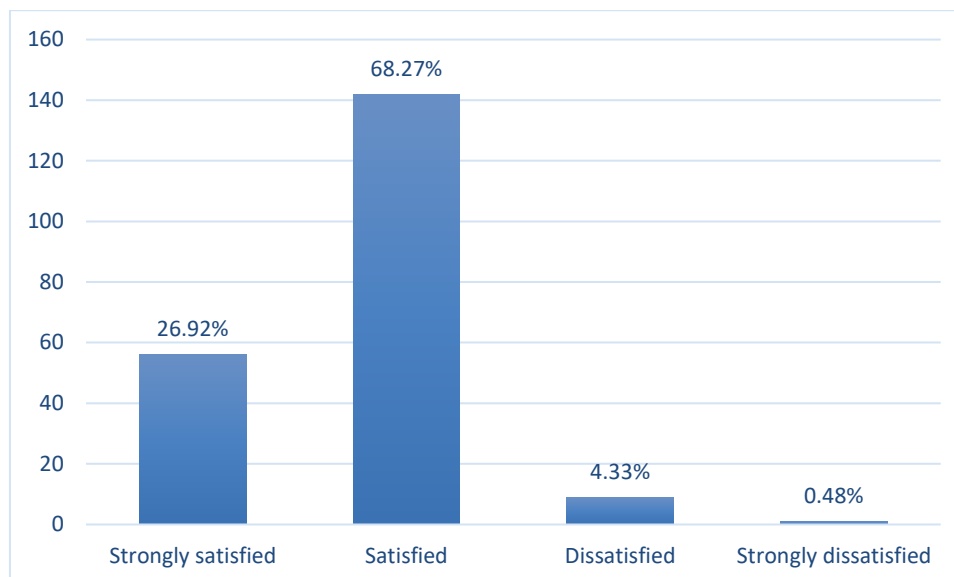
Chart No. 1.11 AI tools for exam preparation



The above chart shows that out of 208 respondents, 170 (81.7%) use AI tools for exam preparation, including 79% of males and 85% of females.

Table No. 1.12 Satisfaction Level of AI Tool		
PARTICULAR (SATISFACTION LEVEL)	FREQUENCY	PERCENTAGE (%)
Strongly satisfied	56	26.92
Satisfied	142	68.27
Dissatisfied	9	4.33
Strongly dissatisfied	1	0.48
TOTAL	208	

Chart No. 1.12 Satisfaction Level of AI Tool



A combined 95.19% (56 strongly satisfied + 142 satisfied) of respondents have a favourable opinion about AI tools. Only 4.81% (9 dissatisfied + 1 strongly dissatisfied) of respondents are not satisfied with AI tools. The overwhelmingly positive feedback indicates that AI tools are highly effective and well-received for their purpose.

Table No. 1.13 – Result of Chi-Square Test

H₀₁: There is no significant difference of various AI tool used by Sardar Patel University students.

Particular	Value	Df	p-value
Academic activities	0.708	1	0.400
Academic performance	0.658	1	0.417
Critical thinking	1.059	1	0.303
Analytical skills	0.929	1	0.335
Assignment	2.242	1	0.134
Exam preparation	1.622	1	0.203

Table No. 1.13 shows result of Chi-square test between gender and particulars. Here, P-values of all variables are less than the significant level of 0.05. So, we fail to reject null hypothesis and said that there is no significant relationship between gender and particulars.

H₀₂: There is no significant difference in Satisfaction level as per Education.

Table No. 1.14 - ANOVA -					
Source of Variation	SS	df	MS	F	SIG.
Between Groups	301.240	1	301.240	754.828	.000
Within Groups	165.221	414	0.399		
Total	466.462	415			

The ANOVA revealed a significant difference between education scores (1.514) and satisfaction with AI tools (3.216). The F-value (754.83) exceeds the critical value, and the p-value (2.4114E-95) is extremely small, confirming a significant difference. Satisfaction with AI tools is notably higher than education scores.

FINDINGS

- From the result of descriptive analysis, the majorities respondents are male (54.2%) and female respondents are (45.8%).
- In relation to education of respondents, the majority of respondents from BCOM (61.8%), BBA (25.5%) and lowest number of respondents are from MCOM (12.7%)
- The majority respondents used chat GTP (71.2%) as source of study, Google Gemini (39.9%), other (17.3%) and the minimum respondents used virtual assistant (7.7%) (e.g. Siri, Alexa)
- Maximum i.e., 36.5% student uses daily, 20.7% student uses weekly, 19.7% uses occasionally and same percent of student i.e., 11.7% use monthly and rarely. The majority student i.e., 65.9% use the AI tool for understanding concept, 55.3% students use AI tools for exam preparation and least students i.e., 26.9% uses AI tools for analysing case studies.
- The result of chi-square test found that there is no significant association between, Academic activities, Academic performance, Critical thinking, Analytical skills, Assignment, Exam preparation
- One-way ANOVA test result found that there is no significant difference in Satisfaction level as per Education.

CONCLUSION

According to the survey's findings, most students are satisfied with these resources for improving their productivity and academic achievement. Their educational experiences are being greatly enhanced by AI tools like chat-GTP, Google Gemini virtual assistants (like Siri and Alexa), and others. But there were also some drawbacks, like problems with accessibility and a lack of technical assistance. These results imply that the application of AI tools can benefit education, although more advancements are required. To guarantee that more students may take advantage of these resources, future studies should concentrate on their efficacy and versatility.

In summary, it can be claimed that AI technologies are a useful tool that help students learn more easily and effectively.

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