

A STUDY ON THE USE AND ACADEMIC IMPACT OF GENERATIVE AI TOOLS AMONG UNDERGRADUATE COMMERCE STUDENTS IN MANGALURU

Mrs. Prajnha S

Faculty, Department of Commerce, University College Mangalore, India

ABSTRACT:

Generative AI refers to a type of artificial intelligence that can create new content such as text, images, audio, videos or code based on the data it has learned. The rapid advancement of Generative Artificial Intelligence (AI) has transformed the educational sector by providing students with innovative tools for learning, content generation, research and problem solving. Applications such as ChatGPT, Google Gemini and other AI based platforms are increasingly being used by undergraduate students for academic purposes. These tools help students understand difficult topics and improve their learning experience. At the same time overdependence on these tools may reduce creativity and critical thinking. In this context, the study aims to examine the usage and academic impact of generative AI tools among undergraduate commerce students. Both primary and secondary data has been used for the study.

Keywords – Generative AI, Educational sector, ChatGPT, Google Gemini

1. INTRODUCTION

In recent years, the rapid development of Generative Artificial Intelligence (AI) has significantly transformed the educational landscape. Generative AI tools such as ChatGPT, Google Gemini, and Grammarly are increasingly being used by students for academic purposes, including preparing assignments, understanding concepts, summarizing study materials, and improving writing skills.

Among undergraduate commerce students, the use of these tools has become more common due to the need for quick access to information and assistance in subjects like accounting, finance, business studies, and economics. These tools help students save time, enhance productivity, and improve the quality of their academic work. However, the growing dependence on generative AI also raises concerns such as reduced independent thinking, academic dishonesty, and overreliance on technology. Therefore, it is important to study both the positive and negative academic impacts of these tools.

2. OBJECTIVES

1. To study the awareness of Generative AI tools among undergraduate commerce students
2. To identify the positive and negative impact of AI tools on academics
3. To suggest measures for responsible use of AI tools by students

3. METHODOLOGY

For the purpose of the study both primary and secondary data has been considered. Primary data were gathered using a google form questionnaire. The secondary data has been collected from websites. The total sample constitutes 100 undergraduate commerce students from Mangaluru city.

4. LIMITATIONS

1. The study is limited only to the undergraduate commerce students in Mangaluru city.
2. Time constraint was the problem to conduct the detailed study
3. The outcomes of the study cannot be generalised as the geographical area considered for the study is limited.

5. DATA ANALYSIS AND INTERPRETATION

Table 5.1 – Gender wise distribution of sample

Gender	No.of respondents	Percentage
Male	46	46
Female	54	54
Total	100	100

Source: Survey data

Majority(54%) of the respondents are female.

Table 5.2 – Age wise classification of sample

Age	No.of respondents	Percentage
Below 18	3	3
18-20	71	71
21-23	26	26
Above 23	00	00
Total	100	100

Source: Survey data

Majority (71%) of the respondents fall under the age group of 18-20 years.

Table 5.3 – Year of study wise classification

Year	No.of respondents	Percentage
First year	30	30
Second year	33	33
Third / final year	37	37
Total	100	100

Source: Survey data

Majority (37%) of the respondents are final year undergraduate students.

Table 5.4 – Type of college wise classification of sample

Particulars	No.of respondents	Percentage
Government	64	64
Aided	02	02
Private	34	34
Total	100	100

Source: Survey data

Majority (64%) of the respondents are from government colleges.

The above 4 tables reveal the demographic profile of respondents.

The following tables present analysis and interpretation of the data collected from 100 respondents.

Table 5.5 – Awareness of Generative AI tools

Particulars	No.of respondents	Percentage
Yes	100	100
No	00	00
Total	100	100

Source: Survey data

The table 5.5 shows that all the respondents are aware about the generative AI tools like ChatGPT, Gemini etc.

Table 5.6 – Source of awareness of Generative AI tools

Particulars	No.of respondents	Percentage
Friends/ classmates	49	49
Teachers	08	08
Social media	54	54
Internet / websites	23	23
YouTube	07	07

Source: Survey data

MRR= 1.41

N=100

Here the total of percentage is not equal to 100, because of multiple responses.

The table 5.6 shows that majority of the respondents are aware about generative AI through social media and friends and classmates.

Table 5.7 – Frequency of using generative AI tools for academic purposes

Particulars	No.of respondents	Percentage
Daily	18	18
Weekly	19	19
Occasionally	38	38
Rarely	24	24
Never	01	01
Total	100	100

Source: Survey data

The above table reveals that most of the respondents (38%) use generative AI tools occasionally. This shows that the students use these tools as and when the need arises for their educational purpose.

Table 5.8 – Most used Generative AI tool

Particulars	No.of respondents	Percentage
ChatGPT	93	93
Gemini	24	24
Microsoft copilot	01	01
Claude	03	03
Grammarly AI	01	01
Other	02	02

Source: Survey data

MRR=1.24

N=100

Here the total of percentage is not equal to 100, because of multiple responses.

The table 5.8 shows that the most used Generative AI tool among undergraduate commerce students is ChatGPT.

Table 5.9 – Purpose of using Generative AI tools

Particulars	No.of respondents	Percentage
Assignments	83	83
Note preparation	24	24
Exam preparation	45	45
Language improvement	20	20
Project work	39	39

Source: Survey data

MRR=2.11

N=100

Here the total of percentage is not equal to 100, because of multiple responses.

The table 5.9 reveals that most (83%) of the undergraduate commerce students use generative AI tools for assignment purpose.

Table 5.10 – Students' opinion on ease of use of Generative AI tools

Particulars	No.of respondents	Percentage
Strongly agree	26	26
Agree	62	62
Neutral	11	11
Disagree	00	00
Strongly disagree	01	01
Total	100	100

Source: Survey data

The table 5.10 shows that most (62%) of the students find Generative AI tools easy to use.

Table 5.11 – Perception on Positive impacts of Generative AI tools on academics

Particulars	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Generative AI tools helps to complete assignments faster.	25	66	7	1	1

AI tools improve understanding of difficult topics.	25	66	8	0	1
AI tools increases productivity in academic work.	13	66	19	1	1
AI tools assists in finding relevant study materials quickly.	15	74	10	0	1
AI tools encourage self-learning and independent study.	12	61	20	6	1

Source: Survey data

N=100

The table 5.11 shows that undergraduate students generally have a positive perception towards the use of generative AI tools in academics. Most respondents believe these tools help them complete assignments faster, improve understanding of difficult topics, increase productivity, and provide quick access to relevant study materials. Additionally, a majority felt that AI encourages self-learning and independent study,

Table 5.12 – Perception on Negative impacts of Generative AI tools on academics

Particulars	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Excessive use of AI tools reduces critical thinking ability.	13	57	18	10	2
Students may become over dependent on AI tools for academic work	22	56	14	7	1
AI tools sometimes provide inaccurate or misleading information.	13	60	21	5	1
Use of AI tools reduces students' originality in assignments.	18	56	22	3	1
Uncontrolled use of AI tools can negatively affect academic performance	11	56	23	9	1

Source: Survey data

N=100

Table 5.12 shows the respondents' perception regarding the negative impacts of generative AI tools on academics. A majority expressed concern that excessive use of AI may reduce critical thinking ability and increase dependency on such tools for academic tasks. Many students also acknowledged that AI-generated information can sometimes be inaccurate or misleading, making it a major concern. In addition, respondents felt that overreliance on AI may reduce originality and creativity in assignments and could negatively affect overall academic performance if used without proper control.

Overall, the results reveal that most respondents are aware of the potential negative consequences of generative AI tools, particularly in terms of dependency, reduced originality, and the risk of inaccurate information.

Table 5.13 – Overall impact of Generative AI tools on academics

Particulars	No.of respondents	Percentage
Positive	72	72
Negative	01	01
Neutral	27	27
Total	100	100

Source: Survey data

Table 5.13 presents the overall impact of generative AI tools on academics among the respondents. 72% of the respondents perceive the impact of generative AI tools as positive, indicating that the majority believe AI tools contribute beneficially to academic activities such as learning, research, and productivity.

On the other hand, only 1% of respondents view the impact as negative, showing that very few students consider AI tools harmful in an overall sense.

Meanwhile, 27% of respondents maintain a neutral opinion, suggesting that a significant proportion of students neither strongly support nor oppose the use of AI tools in academics.

Overall, the findings reveal that generative AI tools are largely viewed positively by undergraduate students, highlighting their growing acceptance and usefulness in the academic environment.

6. MAJOR FINDINGS OF THE STUDY:

- 54% of the respondents are female.
- 71% of the respondents fall under the age group of 18-20 years.
- 37% of the respondents are final year and 33% of them are second year undergraduate students.
- 64% of the respondents are from government colleges.
- All the respondents are aware about the generative AI tools like chatGPT, Gemini etc.
- Majority of the respondents are aware about generative AI tools through social media and friends and classmates.
- 38% of the respondents revealed that they use generative AI tools occasionally for academic purpose.
- 93% of the respondents responded that the most used Generative AI tool is ChatGPT.
- 83% of the undergraduate commerce students use generative AI tools for assignment purpose.
- 62% of the students find Generative AI tools easy to use.
- A majority of respondents (66% agree and 25% strongly agree) feel that generative AI tools help them complete assignments more quickly.
- Most students believe AI tools improve their understanding of difficult subjects. This suggests that AI is seen as a useful learning aid.
- About 79% of students agreed or strongly agreed that AI tools increase productivity. However, 19% remained neutral, indicating that some students may not have fully experienced this benefit.
- According to 89% of the respondents, AI tools are highly valued for quick access to study resources.
- 73% of the respondents agreed that AI supports self-learning, though 20% remained neutral and 6% disagreed, indicating mixed opinions compared to other factors.
- Majority of students agree that excessive use of AI tools may reduce critical thinking ability, with 57% agreeing and 13% strongly agreeing.
- 56% agree and 22% strongly agree that students may become overly dependent on AI tools for academic work. This suggests a concern about reliance on AI.
- Regarding the accuracy of AI-generated information, 60% agree and 13% strongly agree that AI tools sometimes provide inaccurate or misleading information, making it the most widely recognized negative impact.
- 56% agree and 18% strongly agree that AI use reduces originality in assignments, indicating concerns about creativity and authenticity.
- 56% agree and 11% strongly agree that uncontrolled use of AI tools can negatively affect academic performance.
- 72% of the respondents perceive the impact of generative AI tools as positive, as they believe AI tools contribute beneficially to academic activities.

7. SUGGESTIONS:

- Students should use generative AI tools as supplementary learning resources rather than relying on them completely for assignments and projects.
- Students should make conscious efforts to use their own critical thinking, creativity, and analytical skills rather than becoming overly dependent on generative AI tools for academic tasks.
- Clear academic policies should be framed regarding the acceptable use of generative AI tools to maintain originality and prevent plagiarism.
- Colleges should create awareness among undergraduate commerce students about the effective and responsible use of generative AI tools for academic purposes.

8. CONCLUSION:

Generative AI is changing education and is playing a significant role in improving learning efficiency, understanding difficult topics and completing academic tasks more quickly. The findings indicate that generative AI has become an important support system for students. However, there are certain challenges such as overdependence on AI tools, reduction in critical thinking, lack of originality, and the possibility of receiving inaccurate information. Therefore, students should use these tools responsibly and in a balanced manner. With the right approach, AI can make education more engaging, accessible and more effective for learners.

REFERENCES:

1. Chandel, J. K., Mohiuddin, S. A., Agarwal, Y., Sharma, A., Modi, M., & Rahoriya, S. (2025). A study on the utilization of generative artificial intelligence tools among students of higher education in India. *International Journal of Research Studies in Computer Science and Engineering*, 11(2), 12–22. <https://doi.org/10.20431/2349-4859.1102002>
2. <https://www.ibm.com/think/topics/generative-ai>
3. <https://www.coursera.org/in/articles/what-is-generative-ai>
4. <https://exceedcollege.com/blog/how-generative-ai-in-education-is-changing-learning/>

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