

INFLUENCE OF AI IN THE ACADEMICS OF COMMERCE AND MANAGEMENT STUDENTS

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Abstract

Artificial Intelligence (AI) has emerged as a transformative force, reshaping industries across the globe. Commerce and management, in particular, have witnessed significant disruption and innovation due to AI integration. AI-powered tools such as data analytics, automation, chatbots, and virtual simulations are reshaping traditional learning methods, offering personalized education, real-time decision-making insights, and hands-on experience in business scenarios. The study highlights that AI is playing a transformative role in the academics of commerce and management students. The scope of the present study is limited to the M.Com, MBA students and Ph.D. scholars in Kanniyakumari District only. The findings reveal that female students and postgraduate learners are more active users of AI, with ChatGPT emerging as the most preferred tool due to its comprehensive academic assistance. The study also underscores the strong acceptance of AI in academic activities such as exam preparation, research assistance, and report writing, while its role in assignments and case studies remains limited. Despite the positive impact on academic performance and learning experiences, challenges such as over-reliance, accuracy concerns, and lack of training persist. By addressing key concerns and enhancing AI literacy, institutions can ensure that AI continues to enhance learning experiences, boost productivity, and prepare students for future technological advancements in academia and beyond.

Keywords: *Artificial Intelligence, ChatGPT, Ethical Concerns, Over-Reliance, Personalized learning*

Introduction

Artificial Intelligence (AI) has emerged as a transformative force, reshaping industries across the globe. Commerce and management, in particular, have witnessed significant disruption and innovation due to AI integration. Artificial Intelligence (AI) is transforming the academic landscape, significantly impacting commerce and management education. As businesses increasingly adopt AI-driven solutions, educational institutions are integrating AI technologies into their curricula to prepare students for the evolving corporate world. AI-powered tools such as data analytics, automation, chatbots, and virtual simulations are reshaping traditional learning methods, offering personalized education, real-time decision-making insights, and hands-on experience in business scenarios.

For commerce and management students, AI is not only enhancing learning efficiency but also fostering critical skills such as data-driven decision-making, financial forecasting, market analysis, and strategic planning. AI-driven platforms assist students in understanding complex business concepts, analyzing large datasets, and making informed business decisions. However, while AI presents numerous advantages, it also poses challenges such as technological dependency, ethical concerns, and the need for continuous skill development.

This study aims to explore the extent of AI's influence on the academic journey of commerce and management students. It will analyze how AI-driven tools impact their learning process, academic performance, and career preparedness. Additionally, the study will assess the challenges and limitations of AI adoption in business education and propose strategies for its effective integration. Understanding AI's role in academia will help institutions and students adapt to the changing educational environment and harness AI's potential for future success.

Review of Literature

1. Maytha AL-Ali (2024) in her article *Artificial Intelligence Impact on Academic Programs* states that AI is considered as an enhancement tool to journalism. In other words, an academic degree in journalism with AI components is not expected to be a total revamp in curricula and pedagogy (Bernstein, C., and Rouse, M., 2018). Rather, the vision is more about AI-embedded components, with specific learning objectives' approach. The proposal here does not also advocate any curricular adjustments that might entail longer graduation times, or increased cognitive load.
2. Dr. Ramadan Elaïess (2023) found in his study on the *Impact of Artificial Intelligence on Academics: A Concise Overview* declare that Artificial intelligence can help academics in their research, writing, and collaboration in a variety of ways. AI can facilitate cooperation, automate time-consuming processes, and produce fresh insights. To ensure that AI is utilized properly, it is crucial to be aware of the potential drawbacks of introducing AI into research and cooperation. Furthermore, AI has the potential to be an effective research tool, but it can also be exploited in ways that cross moral restrictions. Researchers therefore must make sure that the research method is transparent and that ethical norms are followed in order to avoid this. Besides, it is important to test AI algorithms to make sure they are reliable and impartial.
3. Jennifer Stine et al., (2019) conducted a study on *Implications of Artificial Intelligence on Business Schools and Lifelong Learning* explain that AI and its impact on business schools and business education would be premature. Just as the terminology is far from normalized and accurate, the innovations and adjustments to business school curricula, processes, and markets are a work in progress. If the goal of business education is to equip workforce leaders to master AI's opportunities and

challenges, new linguistics, skills, technologies, strategies, ethics, and world views will have to be understood and embraced by existing management and cadres newly entering the workforce.

4. Tuba Livberber et al., (2023) in their study *The Impact of Artificial Intelligence in academia: Views of Turkish academics on ChatGPT* concluded that the results revealed that ChatGPT could serve as a powerful assistant tool in scientific research and education and could also serve as a source of inspiration for new topics or research areas. However, the study also revealed that ChatGPT raises ethical concerns among academics, such as plagiarism and disinformation. Future studies can also focus on how AI, like ChatGPT, can be effectively utilized to analyze large amounts of data, looking at the benefits, challenges, and implications for academia.
5. Adil Ellikkal et al., (2024) in their article *AI-enabled personalized learning: empowering management students for improving engagement and academic performance* Clarify that the transformative potential of AIPL in management education, anchored in the well-established SDT. The findings reveal a significant, positive influence of AIPL on students' fundamental psychological needs of autonomy, competence and relatedness, thereby fostering engagement. Autonomy emerged as a key driver of engagement, which was strongly associated with improved AP. The path analysis model provided a robust fit to the data, reinforcing the validity of these relationships. These findings underscore the pivotal role of AI in reshaping educational experiences and motivating students intrinsically.

Statement of the Problem

AI-powered tools, such as data analytics, automation, and machine learning, are transforming traditional learning methods, offering personalized learning experiences, real-time decision-making support, and enhanced research capabilities. However, while AI provides numerous opportunities, it also presents challenges such as ethical concerns, dependency on technology, and the need for new skill sets.

This study aims to examine the extent to which AI influences the academic performance, learning methodologies, and career preparedness of commerce and management students. It seeks to identify both the benefits and challenges associated with AI integration in their curriculum and its impact on their future professional competencies. Understanding these factors will help educators and institutions develop strategies to maximize AI's potential while mitigating its drawbacks.

Scope of the Study

The study highlights that AI is playing a transformative role in the academics of commerce and management students. The scope of the present study is limited to the M.Com, MBA students and Ph.D. scholars in Kanniyakumari District only. It includes the AI tools used in academic activities for commerce and management studies, influencing factors

for using AI in academic and challenges faced while using AI tools in academic studies. AI is reshaping commerce and management education, and its responsible implementation can significantly enhance students' academic and professional growth.

Objective of the Study

- To study the tools used in AI in academic activities
- To analyse the influencing factors for using AI in academic
- To identify the challenges faced while using AI tools in academic studies

Methodology

The research was undertaken on the basis of data collected from both primary and secondary sources. The analysis was carried out by using statistical tools like Percentage analysis, Friedman rank test and Factor Analysis to evaluate the objectives of the study. The results were presented in the form of tables and charts. Convenience sampling technique has been adopted to select respondents for the study. The data has been collected from 120 Influence of AI in the academics of commerce and management students in Kanniyakumari district. The calculations were made with the help of SPSS software and advanced EXCEL.

Tools for Analysis

Statistical tools such as Percentage, Factor Analysis and Friedman rank tests are used to analyse the primary data.

Limitations of the Study

- Prejudice of the respondents might have caused errors.
- This study is limited to Kanniyakumari district in Tamil Nadu. Hence the findings cannot be generalized.

Profile of the Respondent

Table 1 Gender

Gender	Frequency	Percent
Male	55	45.8
Female	65	54.2
Total	120	100.0

Source: Primary data

Table 1 presents the gender distribution of students using AI tools in their academics, revealing that 45.8% are male, while 54.2% are female. This indicates that female students are utilizing AI tools at a higher rate than their male counterparts.

Table 2 Level of Study

Study	Frequency	Percent
Postgraduate	104	86.7
Phd	16	13.3
Total	120	100.0

Source: Primary data

Table 2 presents the distribution of students using AI tools in academics, revealing that 86.7% are postgraduate (PG) students, while 13.3% are PhD scholars. This indicates that AI tool adoption is more prevalent among PG students compared to PhD scholars.

Table 3 Familiar with AI Tools Used in Commerce and Management Studies

Familiar	Frequency	Percent
Yes	113	94.2
No	7	5.8
Total	120	100.0

Source: Primary data

The data from Table 3 indicates that 94.2% of students had a positive response to AI tools used in commerce and management, while only 5.8% responded negatively. This suggests a strong acceptance and familiarity with AI tools in these fields.

Table 4 AI Tools Used

AI Tools	Frequency	Percent
ChatGPT	77	64.2
Google Gemini	11	9.2
Chatbot	7	5.8
Meta	14	11.7
Siri	5	4.2
Bing	6	5.0
Total	120	100.0

Source: Primary data

The data from Table 4 highlights the usage of various AI tools by students for academic purposes. ChatGPT emerges as the most widely used AI tool, with 64.2% and Siri (4.2%) have lower usage, possibly due to limited academic functionality. The dominance of ChatGPT suggests a strong preference for AI tools that offer comprehensive academic assistance.

Table 5 Guidance from Faculty on Using AI Tools

Guidance	Frequency	Percent
Yes	85	70.8
No	35	29.2
Total	120	100.0

Source: Primary data

The data from Table 5 indicates that 70.8% of students receive guidance from their faculty on using AI tools in academics, while 29.2% do not. This suggests that a majority of faculty members recognize the importance of AI in education and are actively helping students navigate its use.

Table 6 Academic Activities

Activities	No. of Students
Research Assistance	32
Writing Reports	31
Data Analysis	20
Learning new concepts	36
Solving case studies	9
Exam preparation	41
Assignment	4

Source: Primary data

AI is widely used in academics, primarily for exam preparation, learning new concepts, research assistance, and writing reports. While it enhances efficiency and comprehension, its role in case study analysis and assignments is relatively limited.

Influencing Factors for using AI in Academics

The use of AI in academics is driven by multiple factors that impact students' learning experiences, productivity and accessibility to educational resources. Artificial Intelligence (AI) has become an essential tool in academic settings, transforming the way students learn, research, and complete assignments. Its ability to provide instant information, automate tasks, and personalize learning experiences has made it increasingly popular among students. However, the adoption of AI in education is influenced by various factors, including accessibility, efficiency, faculty support, and ethical considerations. Understanding these factors is crucial for optimizing AI integration in academics and ensuring its responsible use.

The influencing factors for using AI tools in academics in commerce and management are analyzed with the help of the factor analysis method. For this, fourteen variables were identified, and their scores have been included. The inter-correlations

between the fourteen variable were analyzed using Principal Component Analysis (PCA) and the Varimax rotation of factor analysis. The results of Rotated Component matrix of the fourteen variables of influencing factors for using AI tools in academics in commerce and management along are exhibited in Table 7

Table 7 Rotated Component Matrix

Influencing Factors	Component		
	1	2	3
Ethical Concerns(Plagiarism, Dishonesty, Data privacy)	.896		
Improved Academic productivity	.855		
Future scope of AI in Education	.833		
Ease of Use and Accessibility of AI tools	.804		
Skill Development in data Analytics and forecasting	.669		
AI in decision making	.519		
Over-Reliance on AI		.859	
Accuracy of AI-Generated Information		.826	
Ethical and Privacy Considerations when using AI		.819	
Automation of Academic Tasks		.691	
Time-Saving and productivity improvement due to AI			.885
Enhanced Research capabilities			.564
Personalized learning			.670
Exam preparation support			.668

Source: Primary Data

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 7 exhibits the rotated factor loading for fourteen variables. It is observed that all the fourteen variables have been extracted and were considered to be the influencing factors for using AI in academics for Commerce and Management students. The fourteen variables were reduced to three factors. As per the student's point of view, the influencing factors for the usage of AI in academics in the study area evinced factor such as Productivity and Future Perspectives, Challenges in AI-Driven Academics and learning enhancement as the influencing factor for using AI in academics. The five components are presented along with the factor.

Productivity And Future Perspectives

This factor loading highlights the balance between ethical concerns, efficiency improvements, and the long-term role of AI in education and skill development. The variables defining component-one their factor loading are presented in Table 7.1

Table 7.1 Productivity and Future Perspectives

Sl. No.	Variables	Factor loading
1	Ethical Concerns(Plagiarism, Dishonesty, Data privacy)	.896
2	Improved Academic productivity	.855
3	Future scope of AI in Education	.833
4	Ease of Use and Accessibility of AI tools	.804
5	Skill Development in data Analytics and forecasting	.669
6	AI in decision making	.519

Source: Compiled from Table

The variables such as Ethical Concerns (Plagiarism, Dishonesty, Data privacy), Improved Academic productivity, Future scope of AI in Education, Ease of Use and Accessibility of AI tools, Skill Development in data Analytics and forecasting and AI in decision making were included in component-one. The six variables with a higher factor loading on component-one were characterized as 'Productivity and Future Perspectives'. The six variables had high factor loading indicating that the variables within the component had a high association among them.

7.2 Challenges in AI-Driven Academics

This factor loading groups key challenges and ethical considerations that arise from the increasing use of AI in academics. It highlights the risks, limitations, and responsibilities associated with AI adoption in education. The variables defining the component-two and their factor loading are presented in Table 7.2

Table 7.2 Challenges in AI-Driven Academics

Sl. No.	Variables	Factor loading
1	Over-reliance on ai	.859
2	Accuracy of AI-Generated Information	.826
3	Ethical and Privacy Considerations when using AI	.819
4	Automation of Academic Tasks	.691

Source: Compiled from Table

The variables such as Over-Reliance on AI, Accuracy of AI-Generated Information, Ethical and Privacy Considerations when using AI and Automation of Academic Tasks were included in component-two. The four variables with a higher factor loading on component-

two were characterized as 'Challenges in AI-Driven Academics'. The four variables had high factor loading indicating that the variables within the component had a very high association among them.

7.3 Learning Enhancement

This factor focuses on how AI improves academic productivity, personalized learning, and research capabilities, making education more efficient and tailored to individual student needs. The variables of learning enhancement and their factor loading are presented in Table 7.3

Table 7.3 Learning Enhancement

Sl. No.	VARIABLES	FACTOR LOADING
1	Time-Saving and productivity improvement due to AI	.885
2	Enhanced Research capabilities	.564
3	Personalized learning	.670
4	Exam preparation support	.668

Source: Compiled from Table

The third component learning enhancement includes time saving and productivity improvement due to AI, enhanced research capabilities, personalized learning and exam preparation support. The four variables had high factor loading indicating that the variables within the component had a high association among them.

Thus, factor analysis reveals that productivity and future perspective is the most important influencing factors for using AI in academic for commerce and management students. Overall, AI serves as a powerful tool in education, transforming learning experiences and helping students achieve greater academic success.

Challenges of Using AI Tools in Academics

The adoption of AI in academic settings has brought both opportunities and challenges, influencing how students and educators interact with technology. This report presents a ranking of key concerns related to AI usage in academics, based on their perceived impact. Garrett Ranking method is used on, with higher values indicating greater concern and the results are presented in Table 8.

Table 8 Challenges of Using AI Tools in Academics

Challenges	Average	Rank
Ethical concerns related to plagiarism or cheating	49.19	4
Bias in AI algorithms leading to incorrect or misleading outcomes	39.27	7
Over-reliance on AI for academic tasks	61.52	2
Lack of proper understanding or training to use AI tools effectively	57.82	3
Difficulty in integrating AI tools into the academic curriculum	41.94	6
Difficulty in integrating AI tools into the academic curriculum	41.94	6
Inaccuracy of AI-Generated Information	66.12	1
Limited access to AI tools due to technical issues or cost	47.11	5
Privacy and data security concerns when using AI tools	38.32	8

Source: Primary Data

The rankings highlight accuracy, over-reliance, and lack of training as the most pressing concerns regarding AI in academics. While AI offers significant advantages, ensuring proper training, responsible usage, and ethical considerations is crucial. Institutions must establish clear guidelines, enhance AI education, and promote critical thinking to maximize AI's benefits while mitigating risks.

Table 9 Level of Satisfaction

Satisfaction level	Frequency	Percent
Highly satisfied	27	22.5
Satisfied	44	36.7
Neutral	34	28.3
Dissatisfied	12	10.0
Highly Dissatisfied	3	2.5
Total	120	100.0

Source: Primary Data

The level of satisfaction regarding usage of AI in academics indicates that most commerce and management students view AI positively, with 59.2% acknowledging its benefits. However, 38.3% reflect uncertainty or dissatisfaction, highlighting the need for

improved AI literacy, better training, and ethical guidelines to ensure effective and responsible AI integration in academics.

Table 10 Recommendation of AI Tools

Recommend	Frequency	Percent
Yes	110	91.7
No	10	8.3
Total	120	100.0

Source: Primary Data

A vast majority of students believe that AI tools have significantly improved academic performance and the overall learning experience and they strongly recommend their juniors to use AI in their academics. A small percentage of students (8.3%) do not recommend AI tools, possibly due to concerns about over-reliance, ethical issues, or inaccurate AI-generated content.

Findings of the Study

1. The gender distribution of students using AI tools in their academics, revealing that 45.8% are male, while 54.2% are female. This indicates that female students are utilizing AI tools at a higher rate than their male counterparts.
2. Students using AI tools in academics, revealing that 86.7% are postgraduate (PG) students, while 13.3% are PhD scholars. This indicates that AI tool adoption is more prevalent among PG students compared to Ph.D. scholars.
3. Majority of the students (94.2%) had a positive response to AI tools used in commerce and management. This indicates a strong acceptance and familiarity with AI tools in these fields.
4. Most of the students (64.2%) emerges as the most widely used AI tool is ChatGPT, with The usage of various AI tools by students for academic purposes. The dominance of ChatGPT shows a strong preference for AI tools that offer comprehensive academic assistance. Siri (4.2%) have lower usage, possibly due to limited academic functionality.
5. Most of the students of Commerce and Management (70.8%) receive guidance from their faculty on using AI tools in academics. This exhibits that a majority of faculty members recognize the importance of AI in education and are actively helping students navigate its use.
6. Most of the students agree that AI is widely used in academics, primarily for exam preparation, learning new concepts, research assistance, and writing reports. While it enhances efficiency and comprehension, its role in case study analysis and assignments is relatively limited.

7. Factor analysis reveals that productivity and future perspective is the most important influencing factors for using AI in academic for commerce and management students. Overall, AI serves as a powerful tool in education, transforming learning experiences and helping students achieve greater academic success.
8. The rankings highlight accuracy, over-reliance, and lack of training as the most pressing concerns regarding AI in academics. While AI offers significant advantages, ensuring proper training, responsible usage, and ethical considerations is crucial. Institutions must establish clear guidelines, enhance AI education, and promote critical thinking to maximize AI's benefits while mitigating risks.
9. The level of satisfaction regarding usage of AI in academics indicates that most commerce and management students view AI positively, with 59.2% acknowledging its benefits. However, 38.3% reflect uncertainty or dissatisfaction, highlighting the need for improved AI literacy, better training, and ethical guidelines to ensure effective and responsible AI integration in academics.
10. Majority of students (91.7%) believe that AI tools have significantly improved academic performance and the overall learning experience and they strongly recommend their juniors to use AI in their academics. A small percentage of students (8.3%) do not recommend AI tools, possibly due to concerns about over-reliance, ethical issues, or inaccurate AI-generated content.

Suggestions for the Study

1. Integrate AI education into the curriculum to ensure students understand AI's capabilities and limitations.
2. Organize faculty-led seminars on ethical AI usage and responsible integration into academics.
3. Introduce students to a variety of AI tools like Grammarly (writing assistance), Perplexity AI (research tool), and Mendeley (citation management).
4. Educate students about the strengths and weaknesses of different AI tools for specific academic tasks.
5. Encourage faculty members to explore AI tools and incorporate them into their teaching methods.
6. Develop faculty training programs on AI integration in coursework and research supervision.
7. Encourage students to use AI for brainstorming, structuring reports, and analyzing data while maintaining originality.
8. Educate students on fact-checking AI-generated content and cross-referencing with credible sources.
9. Promote ethical discussions on AI's role in learning to prevent misuse.
10. Gather student feedback on AI challenges and refine training programs accordingly.

Conclusion

The study highlights the growing integration of AI tools in academics, particularly among commerce and management students. The findings reveal that female students and postgraduate learners are more active users of AI, with ChatGPT emerging as the most preferred tool due to its comprehensive academic assistance. The study also underscores the strong acceptance of AI in academic activities such as exam preparation, research assistance, and report writing, while its role in assignments and case studies remains limited.

Despite the positive impact on academic performance and learning experiences, challenges such as over-reliance, accuracy concerns, and lack of training persist. Faculty guidance plays a crucial role in AI adoption, and most educators recognize AI's importance in modern education. To maximize AI's benefits, universities should focus on structured AI training, promote responsible usage, and diversify AI applications beyond traditional academic tasks. By addressing key concerns and enhancing AI literacy, institutions can ensure that AI continues to enhance learning experiences, boost productivity, and prepare students for future technological advancements in academia and beyond.

References

1. Maytha AL-Ali, (2024),"Artificial Intelligence Impact on Academic Programs Management", Academic Journal of Interdisciplinary Studies www.richtmann.org, Vol.13, Issue 2, July, pp.41-53
2. Dr. Ramadan Elaiess, (2023)," The Impact of Artificial Intelligence on Academics: A Concise Overview", International Journal of Academic Multidisciplinary Research (IJAMR), Vol. 7 Issue 4, April, pp. 218-220
3. Jennifer Stine, Anne Trumbore, Toby Woll, and Heber Sambucetti (2019). Implications of Artificial Intelligence on Business Schools and Lifelong Learning, <https://www.academicleadershipgroup.com/>, 4 November, pp. 1-96
4. Tuba Livberber, SüheylaAyvaz , (2023)," The impact of Artificial Intelligence in academia: Views of Turkish academics on ChatGPT", Heliyon, pp.1-11
5. AdilEllikkal and Rajamohan, S., (2024), "AI-enabled personalized learning: empowering management students for improving engagement and academic performance", <https://www.emerald.com/insight/0973-1954.htm>, 20, June, pp.1-17
6. Devedic, V., (2004), "Web intelligence and artificial intelligence in education", Educ. Technol. Soc, vol. 7, no. 4, pp. 29-39, 2004.
7. <https://kjcmt.ac.in/uploads/2024/05/AI-IN-COMMERCE-AND-MANAGEMENT.pdf>
8. https://www.researchgate.net/publication/378321832_Artificial_Intelligence_in_Business_Education_Benefits_and_Tools
9. <https://rcm.ac.in/the-effects-of-ai-technology-on-management-education/>
10. <https://ecampusontario.pressbooks.pub/aiinbusinesseducation/chapter/student-ai-use/>
11. https://www.researchgate.net/publication/383677239_The_Impact_of_Artificial_Intelligence_in_Educational_System