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Impact of Artificial Intelligence Tools on Learning Habits and Academic Performance of MBA Students: A Study of DBIM, VNSGU

Ms. Foram Jha
Ph. D. Scholar, Department of Business and Industrial Management, Veer Narmad South Gujarat University, Surat-395007, Gujarat, India
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Abstract- ***The increasing applications of Artificial Intelligence have dramatically impacted the way of learning and acquisition of knowledge offered at higher education institutions. Management students increasingly rely on various applications of AI, such as intelligent tutoring systems, content generation platforms, grammar assistance systems, and personal learning platforms, to understand concepts and increase efficiency of learning, as well as to cope with their academic work.***

However, there is little research or studies that have empirically tested the effect of applications of AI on management students' habits of studying and performance at an institutional level.

The current research work tends to explore the effect of Artificial Intelligence tools on the learning behavior and performance of management students studying at the Department of Business & Industrial Management (DBIM), Veer Narmad South Gujarat University (VNSGU). For the current research work, a descriptive & analytical approach has been followed. The data collection for the current work was done by using a structured questionnaire for management students studying at DBIM, VNSGU. The data obtained for conducting the current research work was analyzed by using techniques such as percent analysis, mean score analysis, & correlation.

The result indicates that the majority of management students are aware of the AI-based learning tools and utilize them effectively. The findings also reveal that applying AI tools has been beneficial in learning efficiency, time management, and academic confidence. The issue concerning over-reliance, inappropriate usage, and ethical usage of the AI tools was also identified. The conclusion drawn from this research indicates that utilizing AI tools benefits management students in their learning and academic performances. It is, however, essential to utilize AI tools in an appropriate manner to attain desirable academic results.

Keywords- Artificial Intelligence, Learning Habits, Academic Performance, Management Students, Higher Education, DBIM

I. INTRODUCTION

Artificial Intelligence in Higher Education

Artificial Intelligence has been identified as one of the technological innovations that has significantly impacted several sectors, including higher education. In higher education, Artificial Intelligence can be defined as applications and systems used in creating intelligent learning environments with capabilities to mimic human intelligence based on data processing and analysis. Higher education institutions are currently employing AI applications to optimize and facilitate enhanced learning environments for students. The development of AI applications has enabled students to learn at any time and from any location.

The Role of AI Tools in Management Education

Management studies call for students to possess analytical power, strategic thinking capabilities, and decision-making skills. MBA students regularly undertake assignments such as case study analysis and writing reports and papers based on case studies and presentations. AI technology benefits management students in several ways – it provides instant explanations and helps students organize their study material and enhance its language and assist students in making presentations.

Impact of AI Tools on Academic Performance

Factors that affect academics include the capability to comprehend learning concepts, time management

skills, and the efficient completion of academic-related tasks. The use of AI technology serves as an enabler in all these factors by reducing redundant activities, providing an organized method of academic support, and reducing academic-related stresses. Nevertheless, the issue concerning overdependence and responsible usage exhibits the importance of a careful consideration regarding their impact.

Digital Transformation and Student-Centered Learning

The use of Artificial Intelligence tools is a manifestation of the digitization of the higher educational sector as a whole. Learning, which is centered on the needs of the students, is acquiring equal importance as students become active participants in gaining knowledge, as opposed to passive receivers of knowledge in the past. This is made possible through the use of AI tools that emphasize adaptive learning, self-directed learning, and active participation in learning, as is the case with MBAs.

The Perceived Benefits of AI Tools Used in Educational Activities

Dependence on the efficiency of AI tools also depends to a certain extent on the acceptance of these tools by students.students consider the use of AI tools to have several benefits, like increased efficiency, reduced workload, and improved efficiency of learning. These applications have the capability to assist students in different ways, like the organization of study material, preparation of assignments, and acquisition of information related to complex subjects.

II. NEED FOR THE PRESENT STUDY

Despite the increased usage of AI tools in the education sector, there has been limited research carried out on the impact caused by AI tools on the study behaviors and performance of MBA students. In general, most of the research studies carried out on the impact of AI tools on education are not specific or localized. Therefore, the purpose of this research study will be to concentrate on MBA students belonging to the Department of Business and Industrial Management, Veer Narmad South Gujarat University, with regard to their awareness and perception of AI tools.

III. LITERATURE REVIEW

Artificial Intelligence (AI) has emerged in a rather rapid, transformative way in the education sector with a lot of promise of personalized learning, engagement, and educational outcomes. Recent evidence suggests that the use of AI services, like intelligent tutoring systems and chatbots, increases in the educational activities of students. Intelligent tutoring systems and chatbots assist students in gaining information quickly, managing assignments, and obtaining feedback, making them a potent tool in educational tasks like assignments, exams, and learning complex concepts.

Artificial Intelligence in Higher Education

Artificial Intelligence has emerged as a transformative force in education, enabling personalized learning, adaptive content, and automated academic support. AI tools are increasingly integrated into digital learning environments, helping students interact with educational content beyond traditional methods. According to a systematic review by Younas and El-Dakhs (2025), AI applications in education support improved comprehension and engagement by tailoring learning to individual needs and providing instant feedback. Such tools have been shown to help students overcome conceptual challenges and enhance learning outcomes across various disciplines (Younas & El-Dakhs, 2025).

Ward et al. (2024)

Ward et al. (2024) carried out an empirical study to analyze the impact of AI tools on students' learning habits and academic performance. Data were collected through structured questionnaires from university students using AI-based academic tools. The study found that students using AI tools demonstrated improved time management, better study planning, and enhanced learning efficiency. However, the authors also cautioned against excessive dependency on AI for academic tasks.

MDPI. (2025). *Systematic review of AI in educational settings: Trends, benefits, and challenges*.

Several studies highlight that AI tools enhance academic performance by supporting complex academic tasks such as assignments, writing, and exam preparation. In an empirical review, AI-assisted applications were shown to reduce cognitive load and improve academic outcomes by providing automated guidance and personalized recommendations (MDPI, 2025). However, the degree of impact varies with students' familiarity with AI and their ability to use these tools effectively, indicating that tool adoption and skill level influence performance outcomes.

Shahzadi et al. (2025)

Shahzadi et al. (2025) investigated the impact of AI-based tools on university students' academic activities. Using survey-based primary data, the study assessed students' awareness, usage patterns, and perceived benefits of AI tools. The results indicated a positive relationship between AI usage and academic performance, while also identifying ethical concerns related to plagiarism and misuse.

Kumar and Bansal (2022)

Kumar and Bansal (2022) conducted a survey-based study to analyze students' perception and acceptance of AI-enabled learning tools in management education. The study focused on MBA students and assessed how AI tools influence study habits, assignment preparation, and examination readiness. The results revealed that students perceived AI tools as useful for improving productivity and academic efficiency. The authors concluded that AI tools positively affect learning behaviour when used as supportive resources rather than replacements for traditional learning methods.

IV. RESEARCH METHODOLOGY

Research Objectives

The following objectives have been framed to achieve the purpose of the study:

- To study the level of awareness of Artificial Intelligence tools among MBA students of DBIM, VNSGU.
- To identify the types of Artificial Intelligence tools used by management students for academic purposes.
- To examine the impact of Artificial Intelligence tools on the learning habits of MBA students.
- To analyze the relationship between the use of Artificial Intelligence tools and the academic performance of management students.
- To identify the challenges and concerns associated with the use of Artificial Intelligence tools in academic activities.

V. RESEARCH DESIGN

Research design can be defined as the overall framework that guides a research study with respect to the collection, measurement, and analysis of data. It provides a systematic approach for addressing the research objectives and ensures the validity and reliability of the study findings.

VI. TYPES OF RESEARCH DESIGN

Research design is generally classified into the following three types:

Descriptive Research:
Descriptive research focuses on describing and interpreting the characteristics, behaviour, and features of a population or phenomenon. It answers questions such as who, what, when, where, and how.

Exploratory Research:
Exploratory research aims to gain preliminary insights into a research problem that has not been extensively studied, helping to identify key variables and areas for further investigation.

Explanatory Research:
Explanatory research seeks to establish cause-and-effect relationships between variables in order to explain why certain phenomena occur.

The present study adopts a Descriptive Research design, as it aims to examine the awareness, usage, and impact of Artificial Intelligence tools on the learning habits and academic performance of MBA students of the Department of Business & Industrial Management (DBIM), Veer Narmad South Gujarat University (VNSGU). This design is suitable for understanding

students' perceptions and usage patterns of AI tools in academic activities.

VII. DATA COLLECTION

The present study relies solely on primary data. Primary data was collected through a structured questionnaire administered to MBA students enrolled in the Department of Business & Industrial Management (DBIM), Veer Narmad South Gujarat University (VNSGU). The questionnaire was designed to collect responses related to the awareness, adoption, and impact of Artificial Intelligence tools on students' learning behaviour and academic performance.

Sample Design

Sample design describes the target population, sampling technique, and sample size used for the study.

Sampling Technique

A non-probability convenience sampling method was adopted for collecting primary data, as it allows ease of access to respondents within limited time and resources.

Population

The target population of the study consists of MBA students of the Department of Business & Industrial Management (DBIM), VNSGU.

Sampling Frame

The sampling frame includes currently enrolled MBA students at DBIM, VNSGU, who are exposed to or use Artificial Intelligence tools for academic purposes.

Sample Type

A non-probability convenience sampling method was used for selecting respondents.

Sample Area

The study is confined to DBIM, VNSGU, and responses were collected from students attending classes on the university campus.

Sample Size

A total of 60 MBA students provided valid responses for the study.

Tools and Techniques of Analysis

The data obtained from the questionnaire was analyzed using appropriate statistical tools and techniques.

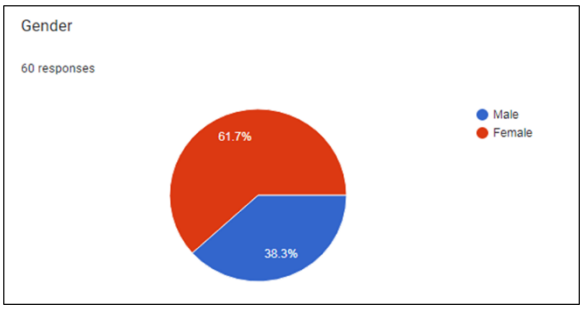
Techniques

- Percentage analysis

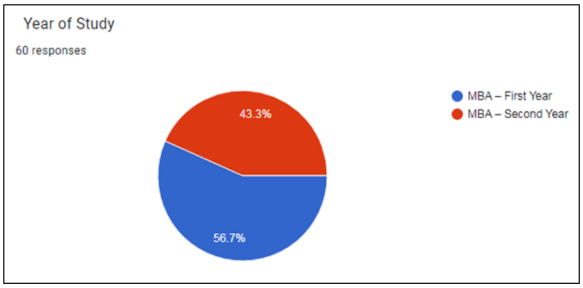
Tools

- Tables
- Figures
- Percentages
- MS Excel

Data Analysis:



Out of 60 respondents, 61.7% are female and 38.3% are male, showing that female students participated more in the survey than male students.



Out of 60 respondents, 56.7% are MBA first-year students and 43.3% are MBA second-year students, indicating slightly higher participation from first-year students in the study.

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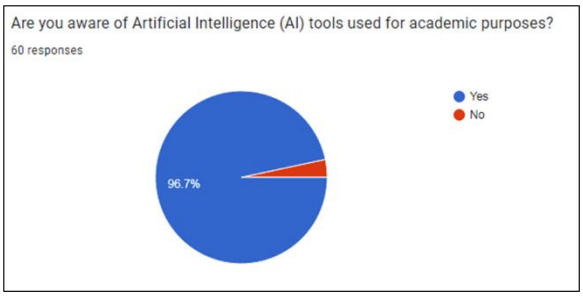
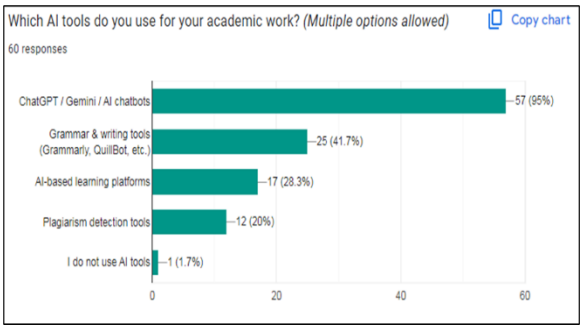
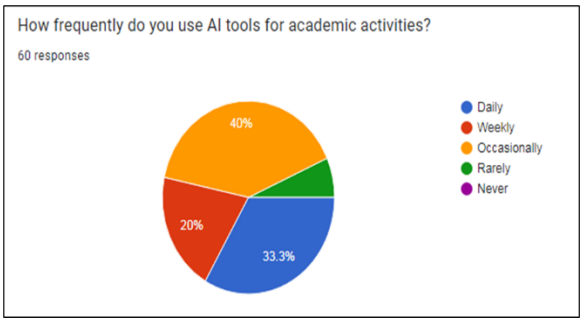


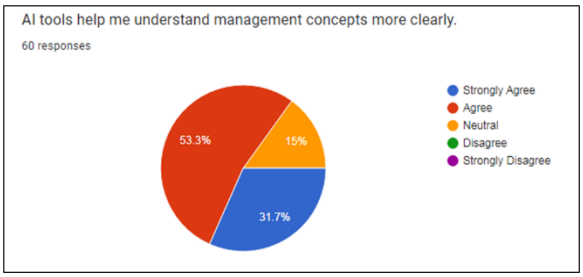
Interpretation:
The chart shows that 96.7% of the respondents are aware of Artificial Intelligence tools used for academic purposes, while only 3.3% are not aware. This indicates a very high level of awareness of AI tools among MBA students, reflecting widespread exposure and familiarity with AI in the academic environment.



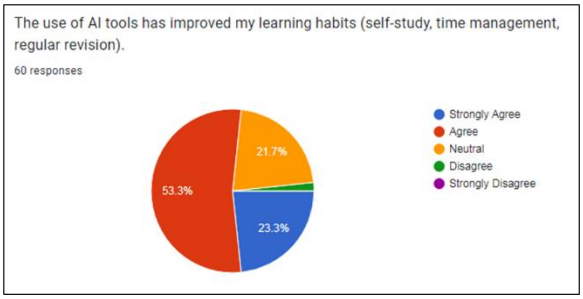
Interpretation:
The chart indicates that AI chatbots such as ChatGPT, Gemini, etc. are the most widely used tools, with 95% of respondents using them for academic work. Grammar and writing tools like Grammarly and QuillBot are used by 41.7%, while AI-based learning platforms are used by 28.3% of students. Plagiarism detection tools are used by 20% of the respondents. Only 1.7% of students do not use any AI tools, showing that AI adoption among MBA students is very high, with chatbots being the preferred choice for academic support.



Interpretation:
The results show that AI tools are used regularly by most students. About 33.3% of respondents use AI tools daily, while 20% use them weekly. A large proportion, 40%, use AI tools occasionally, indicating situational or need-based usage. Only a small percentage of students rarely use AI tools, and no respondents reported never using them. This highlights that AI tools have become an integral part of academic activities among MBA students.



Interpretation:
The majority of respondents perceive AI tools as helpful in understanding management concepts. 53.3% of students agree and 31.7% strongly agree with the statement, indicating a strong positive impact of AI tools on conceptual clarity. 15% of respondents remain neutral, while no respondents disagree or strongly disagree. This clearly suggests that AI tools play a significant role in improving students' understanding of management subjects.



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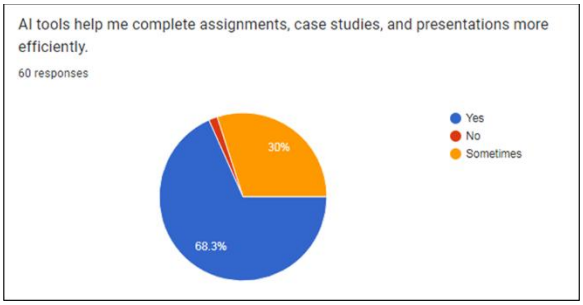
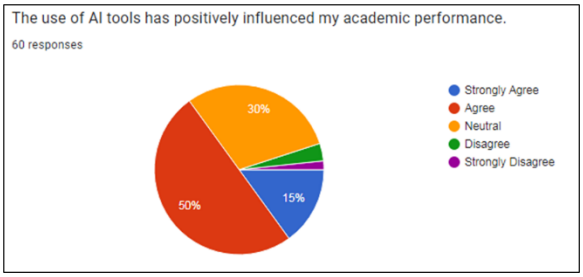
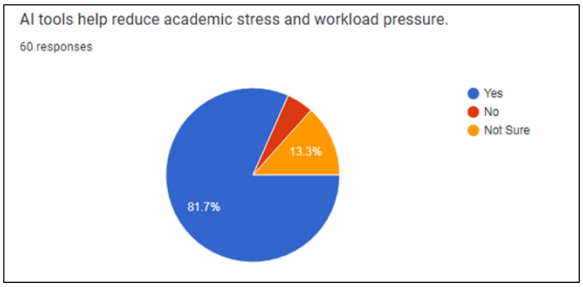
Interpretation:
A large proportion of respondents feel that AI tools have positively improved their learning habits. 53.3% of students agree and 23.3% strongly agree that AI tools help in areas such as self-study, time management, and regular revision. 21.7% of respondents are neutral, while only a very small percentage disagree. Overall, the results indicate that AI tools contribute significantly to better learning habits among MBA students.



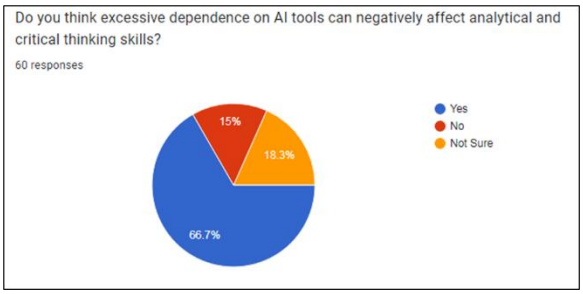
Interpretation:
The majority of respondents believe that AI tools help them complete assignments, case studies, and presentations more efficiently. 68.3% of students responded “Yes”, indicating a clear positive impact of AI tools on academic efficiency. 30% stated “Sometimes”, suggesting situational usefulness depending on the task. Only a very small proportion responded “No”, showing minimal resistance. Overall, the findings highlight that AI tools play a significant role in improving academic task efficiency among MBA students.



Interpretation:
The results indicate that the use of AI tools has a positive influence on academic performance. A majority of students expressed favorable opinions, with 50% agreeing and 15% strongly agreeing that AI tools have improved their academic performance. 30% of respondents remained neutral, suggesting that the impact may vary based on individual usage patterns. Only a very small percentage disagreed or strongly disagreed, indicating minimal negative perception. Overall, the findings suggest that AI tools are largely perceived as beneficial for enhancing academic performance among MBA students.



Interpretation:
The findings clearly show that most students feel AI tools help reduce academic stress and workload pressure. A large majority (81.7%) responded “Yes,” indicating that AI tools make academic tasks more manageable. 13.3% were not sure, suggesting mixed or limited experiences, while only a small proportion disagreed. Overall, the result highlights that AI tools play a significant role in easing academic pressure among MBA students.



Interpretation:
The results indicate that a majority of students (66.7%) believe excessive dependence on AI tools can negatively affect analytical and critical thinking skills. This suggests a strong concern among respondents about over-reliance on AI. 18.3% of students were unsure, reflecting mixed opinions or lack of clarity, while 15% disagreed, indicating they do not perceive such negative effects. Overall, the findings highlight the importance of balanced and responsible use of AI tools in academics to avoid weakening core thinking skills.

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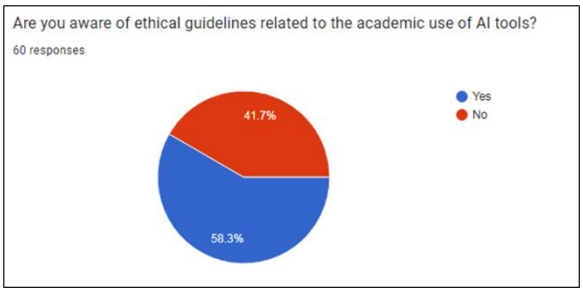
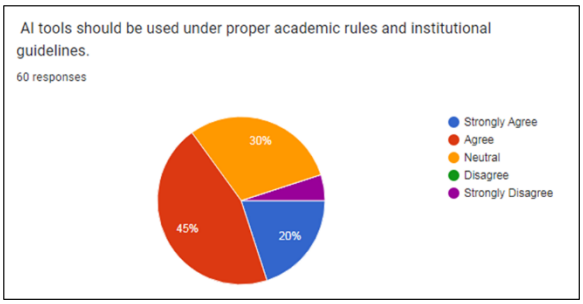
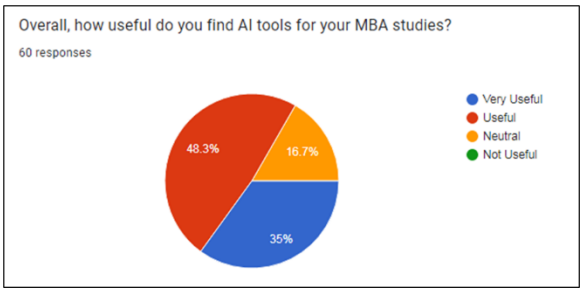


Interpretation:
The chart shows that 58.3% of the respondents are aware of ethical guidelines related to the academic use of AI tools, while 41.7% are not aware of such guidelines. This indicates that although more than half of the students have some awareness of AI ethics, a significant proportion still lacks knowledge, highlighting the need for greater awareness and guidance on ethical AI usage in academics.



Interpretation:
The chart indicates strong support for regulated use of AI tools in academics. A majority of respondents agree (45%) or strongly agree (20%) that AI tools should be used under proper academic rules and institutional guidelines. 30% remain neutral, while only a very small proportion strongly disagree, and no significant disagreement is observed. This shows that most students favor structured and ethical use of AI tools within formal academic frameworks.



Interpretation:
The findings show that AI tools are widely perceived as beneficial for MBA studies. A majority of respondents find AI tools useful (48.3%) or very useful (35%), indicating high overall acceptance and value. 16.7% remain neutral, while none of the respondents consider AI tools not useful. This suggests that AI tools play a positive and supportive role in MBA students' academic activities.

VIII. RESULTS OF THE STUDY

Most students in the DBIM, VNSGU campus are aware of Artificial Intelligence (AI) tools used in the academic field.

AI chatbots are the most commonly used tools, followed by grammar and writing tools.

Students widely use AI tools for academic activities such as assignment preparation, presentation development, and examination preparation.

Artificial Intelligence tools help students understand management concepts more clearly.

Learning habits, including self-study, time management, and regular revision, have improved due to the use of AI tools.

AI tools enable students to complete academic work more efficiently.

A significant proportion of students believe that the use of AI tools has positively influenced their academic performance.

AI tools help in reducing academic stress and workload pressure among students.

A majority of students feel that excessive dependence on AI tools may negatively affect analytical and critical thinking skills.

Students strongly agree that AI tools should be used under proper academic rules and ethical guidelines.

IX. CONCLUSION

The conclusion drawn from the present study is that the use of Artificial Intelligence tools has a positive impact on the learning experience of MBA students studying at the Department of Business & Industrial

Management, VNSGU. The results reflect a very high awareness level of the usage of AI tools in the form of AI chatbots and writing assistant software for academic purposes like understanding concepts, doing homework, preparing for presentation, and efficiently using study time. The use of AI tools has resulted in improved learning practices, performance, and ease from academic stress for the students. At the same time, it is noticed from the research that there are concerns with regard to overdependence on AI tools, which can negatively impact analytical and critical-thinking skills of the students. Thus, while AI tools can very effectively support students in their academic learning, such usage should be allowed under the purview of the right academic practices and ethical principles.

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Annexure:

Gender

- Male
- Female

Year of Study

- MBA – First Year
- MBA – Second Year

Are you aware of Artificial Intelligence (AI) tools used for academic purposes?

- Yes
- No

Which AI tools do you use for your academic work? *(Multiple options allowed)*

- ChatGPT / Gemini / AI chatbots
- Grammar & writing tools (Grammarly, QuillBot, etc.)
- AI-based learning platforms
- Plagiarism detection tools
- I do not use AI tools

How frequently do you use AI tools for academic activities?

- Daily
- Weekly
- Occasionally
- Rarely
- Never

AI tools help me understand management concepts more clearly.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

The use of AI tools has improved my learning habits (self-study, time management, regular revision).

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

AI tools help me complete assignments, case studies, and presentations more efficiently.

- Yes
- No
- Sometimes

The use of AI tools has positively influenced my academic performance.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

AI tools help reduce academic stress and workload pressure.

- Yes
- No
- Not Sure

Do you think excessive dependence on AI tools can negatively affect analytical and critical thinking skills?

- Yes
- No
- Not Sure

Are you aware of ethical guidelines related to the academic use of AI tools?

- Yes
- No

AI tools should be used under proper academic rules and institutional guidelines.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Overall, how useful do you find AI tools for your MBA studies?

- Very Useful
- Useful
- Neutral
- Not Useful