# Factors Influencing the Adoption of Artificial Intelligence Tools Among Computer Science Students of the Federal College of Education, Yola

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***Abstract***
*This study examined the factors influencing the adoption of Artificial Intelligence (AI) tools among Computer Science students of the Federal College of Education (FCE), Yola. The study was motivated by the increasing use of AI technologies in education and the need to understand the factors that encouraged or discouraged students from adopting such tools for academic activities. Specifically, the study examined the influence of perceived usefulness, perceived ease of use, and facilitating conditions on the adoption of AI tools among Computer Science students. A descriptive survey research design was adopted for the study. Data were collected from 87 respondents using a structured questionnaire based on a five-point Likert scale. The data were analysed using frequency, percentage and mean scores, with a criterion mean of 3.00 used for decision-making. The findings revealed that perceived usefulness was the strongest factor influencing AI adoption, with a grand mean of 4.11, followed by perceived ease of use, with a grand mean of 4.07. Facilitating conditions also influenced adoption, recording a grand mean of 3.57. The study further found that students demonstrated a generally positive attitude towards the continued use of AI tools, with a mean score of 3.89. The findings indicated that students perceived AI tools as useful for completing academic activities, improving learning experiences, understanding difficult Computer Science topics and supporting academic performance. However, issues relating to internet access, data costs, electricity, privacy and the accuracy of AI-generated information remained relevant concerns. The study concluded that students' adoption of AI tools was largely influenced by their perceived usefulness and ease of use, while adequate technological facilities and responsible-use guidance were also important. The study recommended that the institution should provide AI awareness and training programmes, improve access to reliable internet and digital facilities, and develop appropriate guidelines for the responsible academic use of AI tools.*

***Keywords:*** *Artificial Intelligence, AI Adoption, Computer Science Students, Perceived Usefulness, Perceived Ease of Use, Facilitating Conditions.*

## 1.1 Introduction

The rapid development of Information and Communication Technology (ICT) has continued to transform the educational sector by introducing digital technologies that support teaching, learning, assessment and academic research. Among the emerging technologies that have attracted considerable attention is **Artificial Intelligence (AI)**. AI refers to computer-based systems capable of performing tasks that normally require human intelligence, including learning, reasoning, problem-solving, language processing and decision-making. In education, AI has increasingly been applied through intelligent tutoring systems, automated feedback, adaptive learning platforms, conversational agents and generative AI applications.

The emergence of generative AI tools has further expanded the possibilities for students. Applications such as ChatGPT and other AI-based systems can assist students in generating ideas, explaining difficult concepts, summarising information, supporting programming activities and providing immediate responses to academic questions. UNESCO (2023) observed that generative AI has significant potential to support education and research, but its use also raises concerns relating to academic integrity, privacy, equity and the reliability of AI-generated information. Consequently, students' willingness to adopt AI tools may depend on both the benefits they perceive and the challenges they associate with their use.

The adoption of technology is commonly influenced by factors such as perceived usefulness and perceived ease of use. The Technology Acceptance Model proposed by Davis (1989) established that users' perceptions of usefulness and ease of use are important determinants of their acceptance of information technologies. In the context of AI, students may be more willing to adopt AI tools when they believe that the tools can improve their academic activities and when they consider them easy to learn and operate. Other factors, including availability of digital devices, internet connectivity, social influence, trust and concerns about privacy and inaccurate information, may also affect students' decisions to use AI technologies.

Among Computer Science students, the issue is particularly relevant because their academic programmes involve substantial interaction with computers, software, programming environments and emerging technologies. Students may use AI tools for programming assistance, debugging, research, learning difficult concepts and completing academic tasks. However, access to AI tools and the willingness to use them may vary according to students' technical experience, available resources and perceptions of the technology.

At the **Federal College of Education, Yola**, Computer Science students represent an important group for examining AI adoption because of their regular exposure to computer-related technologies. Understanding the factors that encourage or discourage their adoption of AI tools can provide useful information for lecturers and educational administrators. It can also assist the institution in developing appropriate guidance for responsible and effective use of AI in academic activities. Therefore, this study investigated the factors influencing the adoption of Artificial Intelligence tools among Computer Science students of the Federal College of Education, Yola.

## 1.2 Statement of the Problem

Artificial Intelligence tools have become increasingly accessible to students and are being used for different academic activities. Despite their potential to support learning, the adoption of AI tools among students cannot be assumed to be uniform. Some students may adopt AI because they perceive it as useful, easy to use and capable of improving their academic performance, while others may be discouraged by factors such as inadequate internet access, cost of data,

limited digital resources, concerns about privacy, inaccurate information and uncertainty about appropriate academic use.

The increasing availability of generative AI has also created concerns about how students use these technologies in their academic work. UNESCO (2023) noted that educational institutions need appropriate policies and guidance to address the opportunities and risks associated with generative AI. Without adequate understanding of students' adoption behaviour, institutions may find it difficult to develop effective strategies for integrating AI tools into teaching and learning while maintaining academic integrity.

Although Computer Science students are expected to have relatively high exposure to digital technologies, their adoption of AI tools may still be influenced by several technological, individual and environmental factors. At the Federal College of Education, Yola, there is therefore a need to determine the factors that influence Computer Science students' adoption of AI tools and to understand the extent to which these factors affect their willingness to use and continue using AI for academic purposes.

The problem addressed by this study was therefore the **limited understanding of the factors influencing the adoption of Artificial Intelligence tools among Computer Science students of the Federal College of Education, Yola**. Specifically, the study examined perceived usefulness, perceived ease of use and facilitating conditions as major factors associated with students' adoption of AI tools.

### 1.3 Aim of the Study

The aim of this study was to examine the factors influencing the adoption of Artificial Intelligence tools among Computer Science students of the Federal College of Education, Yola.

**Objectives of the Study**

The study specifically sought to:

1. Examine the influence of perceived usefulness on the adoption of Artificial Intelligence tools among Computer Science students of the Federal College of Education, Yola.
2. Determine the influence of perceived ease of use on the adoption of Artificial Intelligence tools among Computer Science students of the Federal College of Education, Yola.
3. Assess the influence of facilitating conditions on the adoption of Artificial Intelligence tools among Computer Science students of the Federal College of Education, Yola.

## 2. Reviews

### 2.2 Concept of Artificial Intelligence

Artificial Intelligence refers to the development of computer systems capable of performing tasks that normally require human intelligence, such as learning, reasoning, problem-solving, language processing and decision-making. AI has become increasingly relevant in education because it can support personalised learning, information retrieval, content generation, programming assistance and other academic activities. The increasing availability of generative AI has further expanded the ways students interact with intelligent technologies. UNESCO (2023) noted that generative AI has considerable potential for teaching, learning and research but requires responsible, ethical and human-centred use. (UNESCO)

### 2.3 Artificial Intelligence Tools in Education

AI tools have increasingly been applied to support teaching and learning activities. Students can use such tools to obtain explanations, generate ideas, receive programming assistance,

summarise information and support academic tasks. However, the usefulness of AI in education depends on how students use the technology and how institutions guide its application. UNESCO (2023) emphasised the importance of ethical use, data privacy, human agency and appropriate institutional policies when AI is used in education. (UNESCO)

**2.4 Adoption of Artificial Intelligence Tools among Students**

Technology adoption refers to the decision and willingness of an individual to accept and use a technological system. In the context of this study, AI adoption refers to students' willingness and actual use of AI tools for academic activities. Adoption may be influenced by perceived benefits, ease of operation, availability of technological resources, social environment and users' confidence in the technology. Understanding these factors is important because the availability of AI tools does not automatically guarantee that students will adopt and use them effectively.

**2.5 Perceived Usefulness**

Perceived usefulness refers to the extent to which a student believes that using a technology will improve his or her academic activities or performance. Davis (1989) identified perceived usefulness as one of the fundamental determinants of technology acceptance. (DOI) In the context of AI, students are more likely to adopt AI tools when they believe that the tools can help them complete academic tasks faster, understand difficult topics, improve learning and support academic performance.

**2.6 Perceived Ease of Use**

Perceived ease of use refers to the extent to which an individual believes that using a particular technology will require little effort. Davis (1989) established perceived ease of use as another important determinant of technology acceptance. (DOI) For students, AI tools that are easy to access, understand and operate are more likely to be adopted. Complicated interfaces, lack of technical knowledge or difficulties in interacting with AI systems may discourage students from using them.

**2.7 Facilitating Conditions**

Facilitating conditions refer to the availability of resources and technical support required to use a technology. These include access to smartphones or computers, reliable internet connectivity, electricity, affordable data and adequate digital skills. Venkatesh et al. (2003) incorporated facilitating conditions into the Unified Theory of Acceptance and Use of Technology (UTAUT), recognising the importance of environmental and technical support in technology use. (DOI) In the Nigerian educational environment, limitations in internet access, electricity and affordability may therefore affect students' ability to consistently use AI tools.

**2.8 Social Influence**

Social influence refers to the extent to which an individual's decision to use a technology is affected by people who are important to the individual. These may include classmates, lecturers, friends and other students. Venkatesh et al. (2003) identified social influence as one of the major determinants of technology acceptance and use in the UTAUT framework. (DOI) Students may therefore be encouraged to adopt AI tools when their colleagues and lecturers recommend or demonstrate their academic usefulness.

### 2.9 Trust and Concerns about AI Tools

Trust is an important consideration in the adoption of AI because students must have confidence in the information and services provided by AI systems. At the same time, concerns about inaccurate information, privacy and inappropriate use may discourage adoption. UNESCO (2023) highlighted data privacy, ethical risks and the need for human-centred approaches to the use of generative AI in education. (UNESCO) Students therefore need to critically evaluate AI-generated information rather than accepting every response without verification.

## 2.2 Theoretical Review

### 2.2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model was developed by Davis (1989) to explain users' acceptance of information technology. The model emphasises two major factors: **perceived usefulness** and **perceived ease of use**. The model proposes that when users believe that a technology is useful and easy to use, they are more likely to develop a positive intention toward using it. (DOI) TAM was considered relevant to this study because perceived usefulness and perceived ease of use were among the major factors investigated in relation to students' adoption of AI tools.

### 2.2.2 Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT was developed by Venkatesh et al. (2003) by integrating elements from several existing technology acceptance theories. The model identifies performance expectancy, effort expectancy, social influence and facilitating conditions as important determinants of technology acceptance and use. (DOI) The theory was relevant to this study because it provided a broader explanation of how students' perceptions, social environment and available technological resources could influence their adoption of AI tools.

## 2.3 Empirical Review

Tiwari et al. (2024) investigated the factors that influenced students' adoption and use of ChatGPT for educational purposes. The study employed the Technology Acceptance Model (TAM) and empirically tested the proposed model using data obtained from 375 students. The findings showed that perceived usefulness, social presence, legitimacy, enjoyment and motivation contributed significantly to students' favourable attitudes toward using ChatGPT in learning environments. The study demonstrated that students were more likely to adopt AI tools when they perceived them as useful and beneficial to their learning. The study was relevant to the present research because it established perceived usefulness as an important determinant of students' adoption of AI tools. However, the study focused specifically on ChatGPT, whereas the present study considered AI tools more broadly among Computer Science students at FCE Yola.

Abdaljaleel et al. (2024) examined factors influencing university students' attitudes and use of ChatGPT across five Arab countries. The researchers collected data from 2,240 participants using the TAME-ChatGPT instrument. The findings indicated that ease of use, positive attitudes toward technology, social influence, perceived usefulness, behavioural and cognitive factors, low perceived risks and low anxiety were associated with positive attitudes and usage of ChatGPT. The study also showed that social influence and students' readiness to accept new technologies played important roles in adoption. The study was significant to the present research because it demonstrated that both technological and social factors could influence students' adoption of AI tools. Nevertheless, its multinational Arab-country setting differed from the Nigerian educational context of the present study.

Polyportis and Pachos-Fokialis (2024) investigated students' adoption of ChatGPT in higher education by extending the meta-UTAUT framework with factors such as anthropomorphism, trust, design novelty and institutional policy. The researchers used structural equation modelling with data obtained from 355 students in Dutch higher education institutions. The findings showed that attitude and behavioural intention significantly predicted students' actual ChatGPT use. Behavioural intention was positively influenced by attitude, performance expectancy, social influence and facilitating conditions. The study further found that trust, design novelty, anthropomorphism, performance expectancy and effort expectancy contributed positively to students' attitudes toward ChatGPT. The study was relevant to the present research because it confirmed the importance of facilitating conditions, social influence, perceived usefulness and trust in explaining students' adoption of AI technologies.

Raman et al. (2024) examined university students' adoption of ChatGPT using the Diffusion of Innovation Theory and sentiment analysis. The study considered relative advantage, compatibility, ease of use, observability and trialability as factors that could influence students' behavioural intentions toward ChatGPT. By combining quantitative and qualitative approaches, the researchers examined how students perceived and responded to the emerging AI technology. The study provided evidence that technological characteristics and students' perceptions of the innovation were important in understanding adoption behaviour. Its findings supported the argument that students were more likely to adopt AI technologies when they perceived clear advantages and found the technology compatible with their learning needs. This was relevant to the present study because perceived usefulness and ease of use were also examined as major factors influencing AI adoption among Computer Science students.

Foroughi et al. (2024) investigated the determinants of ChatGPT adoption among higher education students and examined the moderating role of trust. The study used the Technology Acceptance Model and Information Systems Success Model and analysed 406 usable responses obtained from university students in Malaysia using partial least squares analysis. The findings confirmed significant relationships among perceived usefulness, perceived ease of use, attitude and intention to use ChatGPT. The study also found that system quality influenced perceived usefulness and perceived ease of use, while trust in information moderated the relationships between these variables and students' attitudes. The study was particularly relevant to the present research because it demonstrated that usefulness, ease of use, system quality and trust could influence students' adoption of AI tools. However, the Malaysian university setting differed from the context of Computer Science students at FCE Yola, thereby providing justification for the present study.

## 3. Methodology

### 3.1 Research Design

The study adopted a **descriptive survey research design**. The design was considered appropriate because the study examined the factors that influenced the adoption of Artificial Intelligence (AI) tools among students. It enabled the researcher to obtain information directly from the respondents through a structured questionnaire without manipulating the variables under investigation. The design also provided an opportunity to describe the respondents' experiences, perceptions and attitudes towards the use of AI tools for academic activities.

### 3.2 Area of the Study

The study was conducted at the **Computer Science Department, Federal College of Education (FCE), Yola, Adamawa State, Nigeria**. The department was selected as the area of the study because Computer Science students were exposed to computers, digital technologies, programming and other information and communication technologies. This made the department suitable for investigating the factors influencing students' adoption and use of Artificial Intelligence (AI) tools for academic activities.

### 3.3 Population of the Study

The population of the study consisted of **Computer Science students of the Federal College of Education (FCE), Yola**. The students were selected because their academic programmes involved regular interaction with computers and digital technologies, making them relevant to the investigation of AI adoption. The study considered students across the relevant levels of the Computer Science programme.

### 3.4 Sample and Sampling Technique

A sample of Computer Science students was selected from the Federal College of Education, Yola. The respondents were selected using an appropriate sampling technique to provide students with an opportunity to participate in the study. A total of **87 valid responses** were obtained and used for the analysis. The respondents provided information concerning their experiences, perceptions and use of AI tools for academic purposes.

### 3.5 Instrument for Data Collection

A structured questionnaire was used to collect data from the **Computer Science students of FCE Yola**. The questionnaire contained items covering demographic characteristics, previous experience with AI tools, perceived usefulness, perceived ease of use, facilitating conditions, social influence, trust and concerns, and students' intention to continue using AI tools.

### 3.6 Measurement Scale

The questionnaire items were measured using a five-point Likert scale. The response options consisted of **Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), and Strongly Disagree (1)**. The scale was used to measure the degree to which respondents agreed or disagreed with statements concerning the adoption and use of AI tools. A criterion mean of **3.00** was used for interpreting the responses. Mean scores of 3.00 and above were considered agreement, while mean scores below 3.00 were considered disagreement.

### 3.7 Validity of the Instrument

The questionnaire was subjected to face and content validation. The items were examined to ensure that they were relevant to the objectives of the study and adequately covered the factors being investigated. Necessary corrections were made to the wording, arrangement and clarity of the questionnaire items before the instrument was administered to the respondents.

### 3.8 Reliability of the Instrument

The reliability of the instrument was considered by examining the consistency of the questionnaire items in measuring the factors under investigation. The items were structured clearly and consistently to reduce ambiguity and improve the reliability of the responses obtained

from the respondents.

### 3.9 Procedure for Data Collection

The questionnaire was administered to the selected students through an online data-collection format. The respondents were informed of the purpose of the study and were encouraged to provide honest responses. The completed responses were collected electronically and subsequently organised into a dataset for analysis. A total of **87 responses** were obtained from the respondents.

### 3.10 Method of Data Analysis

The data collected were organised and analysed using descriptive statistical techniques. **Frequency counts and percentages** were used to present the demographic characteristics and categorical responses of the respondents. **Mean scores** were used to determine the level of agreement with the statements relating to the factors influencing AI adoption. The findings were presented in tables and interpreted according to the objectives of the study.

## 4. Result

### Data Presentation, Analysis and Interpretation

### 4.2 Demographic Characteristics of Respondents

**Table 4.1: Distribution of Respondents by Gender**

| Gender | Frequency | Percentage (%) |
|---|---|---|
| Male | 26 | 32.5 |
| Female | 54 | 67.5 |
| **Total** | **80** | **100.0** |

**Source: Field Survey, 2026**

Table 4.1 shows that 54 respondents, representing 67.5%, were female, while 26 respondents, representing 32.5%, were male. This indicates that female students constituted the larger proportion of the valid respondents.

**Table 4.2: Distribution of Respondents by Age**

| Age | Frequency | Percentage (%) |
|---|---|---|
| Below 18 years | 11 | 13.6 |
| 18–25 years | 66 | 81.5 |
| 26–30 years | 3 | 3.7 |
| Above 30 years | 1 | 1.2 |
| **Total** | **81** | **100.0** |

**Source: Field Survey, 2026**

Table 4.2 indicates that the majority of the respondents, 66 (81.5%), were between 18 and 25 years of age. Respondents below 18 years constituted 13.6%, while 3.7% were between 26 and 30 years and only 1.2% were above 30 years. The findings therefore indicate that the respondents

were predominantly young students.

**Table 4.3: Distribution of Respondents by Level of Study**

| Level of Study | Frequency | Percentage (%) |
|---|---|---|
| NCE I | 20 | 25.0 |
| NCE II | 13 | 16.2 |
| NCE III | 47 | 58.8 |
| **Total** | **80** | **100.0** |

**Source: Field Survey, 2026**

Table 4.3 shows that NCE III students constituted the largest group of respondents, with 47 (58.8%), followed by NCE I with 20 (25.0%) and NCE II with 13 (16.2%). Thus, the responses were dominated by students in NCE III.

**Table 4.4: Previous Use of AI Tools**

| Previous Use of AI Tools | Frequency | Percentage (%) |
|---|---|---|
| Yes | 65 | 82.3 |
| No | 14 | 17.7 |
| **Total** | **79** | **100.0** |

**Source: Field Survey, 2026**

Table 4.4 reveals that 65 respondents (82.3%) had previously used AI tools, while only 14 (17.7%) had not. This demonstrates a high level of prior exposure to artificial intelligence tools among the respondents.

**Table 4.5: Most Frequently Used AI Tool**

| AI Tool | Frequency | Percentage (%) |
|---|---|---|
| ChatGPT | 63 | 80.8 |
| AI Coding Tools | 6 | 7.7 |
| Google Gemini | 6 | 7.7 |
| Microsoft Copilot | 3 | 3.8 |
| **Total** | **78** | **100.0** |

**Source: Field Survey, 2026**

Table 4.5 shows that ChatGPT was by far the most frequently used AI tool, accounting for 63 respondents (80.8%). AI coding tools and Google Gemini each accounted for 7.7%, while Microsoft Copilot accounted for 3.8%. This suggests that ChatGPT was the dominant AI platform among the students surveyed.

### 4.3 Analysis Based on the Research Objectives

#### 4.3.1 Perceived Usefulness of AI Tools

The first factor examined was the perceived usefulness of AI tools in students' academic activities.

**Table 4.6: Perceived Usefulness of AI Tools**

| S/N | Statement | SA | A | U | D | SD | Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | AI tools help me complete my academic work faster. | 26 (32.9%) | 42 (53.2%) | 4 (5.1%) | 4 (5.1%) | 3 (3.8%) | 4.06 | Agree |
| 2 | AI tools improve my learning experience. | 29 (37.2%) | 44 (56.4%) | 0 (0.0%) | 2 (2.6%) | 3 (3.8%) | 4.21 | Agree |
| 3 | AI tools help me understand difficult Computer Science topics. | 28 (35.9%) | 40 (51.3%) | 3 (3.8%) | 4 (5.1%) | 3 (3.8%) | 4.10 | Agree |
| 4 | AI tools improve my academic performance. | 22 (28.6%) | 45 (58.4%) | 4 (5.2%) | 4 (5.2%) | 2 (2.6%) | 4.05 | Agree |
| | **Grand Mean** | | | | | | **4.11** | **Agree** |

**Source: Field Survey, 2026**

Table 4.6 indicates that respondents generally agreed that AI tools are useful for academic activities. The highest mean score of 4.21 was recorded for the statement that AI tools improve the learning experience. This was followed by the statement that AI tools help students understand difficult Computer Science topics, with a mean of 4.10. The statement concerning completion of academic work faster recorded a mean of 4.06, while improvement in academic performance recorded 4.05.

The grand mean of **4.11** indicates a high level of agreement that perceived usefulness is an important factor influencing students' adoption of AI tools.

#### 4.3.2 Perceived Ease of Use of AI Tools

**Table 4.7: Perceived Ease of Use of AI Tools**

| S/N | Statement | SA | A | U | D | SD | Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | AI tools are easy for me to use. | 31 (39.7%) | 40 (51.3%) | 4 (5.1%) | 2 (2.6%) | 1 (1.3%) | 4.26 | Agree |
| 2 | I can learn how to use new AI tools easily. | 17 (22.1%) | 47 (61.0%) | 6 (7.8%) | 5 (6.5%) | 2 (2.6%) | 3.94 | Agree |
| 3 | AI tools are easy to access and operate. | 18 (23.1%) | 52 (66.7%) | 2 (2.6%) | 2 (2.6%) | 4 (5.1%) | 4.00 | Agree |
| 4 | I can use AI tools without much assistance from others. | 25 (32.5%) | 41 (53.2%) | 4 (5.2%) | 6 (7.8%) | 1 (1.3%) | 4.08 | Agree |
| | **Grand Mean** | | | | | | **4.07** | **Agree** |

**Source: Field Survey, 2026**

Table 4.7 shows that respondents generally found AI tools easy to use. The highest mean score was 4.26 for the statement that AI tools are easy to use. Similarly, respondents agreed that they could use AI tools without much assistance, with a mean of 4.08. The ability to learn new AI tools recorded a mean of 3.94, while ease of access and operation recorded 4.00.

The grand mean of **4.07** indicates that perceived ease of use is a strong factor influencing students' adoption of AI tools.

### 4.3.3 Facilitating Conditions Affecting AI Tool Adoption

**Table 4.8: Facilitating Conditions**

| S/N | Statement | SA | A | U | D | SD | Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | I have access to a smartphone or computer for using AI tools. | 15 (19.2%) | 50 (64.1%) | 4 (5.1%) | 7 (9.0%) | 2 (2.6%) | 3.88 | Agree |
| 2 | I have reliable internet access for using AI tools. | 13 (16.7%) | 47 (60.3%) | 8 (10.3%) | 8 (10.3%) | 2 (2.6%) | 3.78 | Agree |
| 3 | The cost of internet data affects my use of AI tools. | 19 (24.4%) | 29 (37.2%) | 2 (2.6%) | 23 (29.5%) | 5 (6.4%) | 3.44 | Agree |
| 4 | Availability of electricity affects my ability to use AI tools. | 11 (14.1%) | 28 (35.9%) | 6 (7.7%) | 29 (37.2%) | 4 (5.1%) | 3.17 | Agree |
| | **Grand Mean** | | | | | | **3.57** | **Agree** |

**Source: Field Survey, 2026**

Table 4.8 demonstrates that facilitating conditions also influence the use of AI tools. Access to smartphones or computers recorded a mean of 3.88, while reliable internet access recorded 3.78. The cost of internet data had a mean of 3.44, indicating that data cost constitutes a noticeable constraint. Electricity availability recorded the lowest mean of 3.17 within this factor.

The grand mean of **3.57** indicates that facilitating conditions have a moderate positive influence on AI tool adoption among the respondents.

### 4.3.4 Social Influence on AI Tool Adoption

**Table 4.9: Social Influence**

| S/N | Statement | SA | A | U | D | SD | Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | My classmates encourage me to use AI tools. | 13 (16.7%) | 37 (47.4%) | 5 (6.4%) | 16 (20.5%) | 7 (9.0%) | 3.42 | Agree |
| 2 | My lecturers encourage the use of AI tools for learning. | 12 (15.4%) | 38 (48.7%) | 5 (6.4%) | 16 (20.5%) | 7 (9.0%) | 3.41 | Agree |
| 3 | I use AI tools because many students around me use them. | 8 (10.3%) | 33 (42.3%) | 11 (14.1%) | 21 (26.9%) | 5 (6.4%) | 3.23 | Agree |
| 4 | Recommendations from friends influence my decision to use AI tools. | 6 (7.8%) | 43 (55.8%) | 6 (7.8%) | 15 (19.5%) | 7 (9.1%) | 3.34 | Agree |
| | **Grand Mean** | | | | | | **3.35** | **Agree** |

**Source: Field Survey, 2026**

Table 4.9 shows that social influence has a positive but comparatively moderate influence on students' adoption of AI tools. Classmate encouragement recorded a mean of 3.42, while lecturer encouragement recorded 3.41. Recommendations from friends recorded a mean of 3.34, and the influence of other students' usage recorded 3.23.

The grand mean of **3.35** indicates that social influence contributes to students' decisions to use AI tools, although its influence is weaker than perceived usefulness and ease of use.

### 4.3.5 Trust and Concerns Regarding AI Tools

**Table 4.10: Trust and Concerns**

| S/N | Statement | SA | A | U | D | SD | Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | I trust the information provided by AI tools. | 15 (19.2%) | 49 (62.8%) | 5 (6.4%) | 6 (7.7%) | 3 (3.8%) | 3.86 | Agree |
| 2 | I am concerned that AI tools may provide incorrect information. | 7 (9.2%) | 34 (44.7%) | 7 (9.2%) | 21 (27.6%) | 7 (9.2%) | 3.17 | Agree |
| 3 | I am concerned about the privacy of information entered into AI tools. | 6 (7.7%) | 42 (53.8%) | 10 (12.8%) | 13 (16.7%) | 7 (9.0%) | 3.35 | Agree |
| 4 | My concerns about AI affect my willingness to use AI tools. | 5 (6.4%) | 38 (48.7%) | 11 (14.1%) | 22 (28.2%) | 2 (2.6%) | 3.28 | Agree |
| | **Grand Mean** | | | | | | **3.42** | **Agree** |

**Source: Field Survey, 2026**

Table 4.10 indicates that trust and concerns play a role in students' adoption of AI tools. The highest mean score of 3.86 was recorded for trust in information provided by AI tools. Respondents also expressed concerns about privacy, with a mean of 3.35, while concerns about AI-generated incorrect information recorded 3.17.

The grand mean of **3.42** suggests that trust and concerns constitute a relevant factor in AI adoption. Although students generally trust AI tools, they remain aware of possible inaccuracies and privacy issues.

### 4.3.6 Adoption and Continued Use of AI Tools

**Table 4.11: Adoption and Continued Use of AI Tools**

| S/N | Statement | SA | A | U | D | SD | Mean | Decision |
|---|---|---|---|---|---|---|---|---|
| 1 | I regularly use AI tools for academic activities. | 19 (25.3%) | 44 (58.7%) | 3 (4.0%) | 6 (8.0%) | 3 (4.0%) | 3.93 | Agree |
| 2 | I intend to continue using AI tools in my studies. | 15 (19.5%) | 51 (66.2%) | 4 (5.2%) | 5 (6.5%) | 2 (2.6%) | 3.94 | Agree |
| 3 | I would recommend useful AI tools to other students. | 11 (14.1%) | 45 (57.7%) | 9 (11.5%) | 12 (15.4%) | 1 (1.3%) | 3.68 | Agree |
| 4 | I am willing to learn and use new AI tools in the future. | 25 (32.5%) | 38 (49.4%) | 7 (9.1%) | 5 (6.5%) | 2 (2.6%) | 4.03 | Agree |
| | **Grand Mean** | | | | | | **3.89** | **Agree** |

**Source: Field Survey, 2026**

Table 4.11 reveals a generally positive level of AI adoption among the respondents. The highest mean score was 4.03 for willingness to learn and use new AI tools in the future. The intention to continue using AI tools recorded 3.94, while regular academic use recorded 3.93. The

willingness to recommend useful AI tools to other students recorded 3.68.
The grand mean of **3.89** demonstrates that respondents generally have a positive intention toward continued adoption and use of AI tools.

### 4.4 Summary of Major Factors Influencing AI Adoption

**Table 4.12: Summary of Factors Influencing AI Tool Adoption**

| S/N | Factor | Grand Mean | Rank | Decision |
|---|---|---|---|---|
| 1 | Perceived Usefulness | 4.11 | 1st | Agree |
| 2 | Perceived Ease of Use | 4.07 | 2nd | Agree |
| 3 | Adoption and Continued Use | 3.89 | 3rd | Agree |
| 4 | Facilitating Conditions | 3.57 | 4th | Agree |
| 5 | Trust and Concerns | 3.42 | 5th | Agree |
| 6 | Social Influence | 3.35 | 6th | Agree |

**Source: Field Survey, 2026**

Table 4.12 provides a summary of the major factors examined in the study. Perceived usefulness ranked first, with a grand mean of **4.11**, indicating that students' perception of the academic benefits of AI tools is the strongest factor associated with their adoption. Perceived ease of use ranked second with a mean of **4.07**, showing that students are more inclined to use AI tools when they find them simple to operate.
Adoption and continued use recorded a mean of **3.89**, indicating a generally positive level of adoption. Facilitating conditions ranked fourth with a mean of **3.57**, suggesting that access to devices, internet services, electricity and affordable data contributes to adoption. Trust and concerns recorded 3.42, while social influence ranked sixth with a mean of 3.35.

### 4.5 Discussion of Findings

The findings indicate that students generally have a positive attitude toward the adoption and use of artificial intelligence tools for academic purposes. The high mean score for perceived usefulness shows that students consider AI tools valuable in completing academic work, improving learning experiences, understanding difficult Computer Science topics and enhancing academic performance.
The findings further reveal that ease of use is an important factor. Students generally agreed that AI tools are easy to use, easy to access and operate, and can be learned without considerable assistance. This suggests that students are more likely to adopt AI technologies when the technologies do not require extensive technical expertise.
Facilitating conditions also influenced adoption. Although most students reported having access to smartphones or computers and internet services, the findings show that the cost of internet data and electricity availability remain relevant challenges. These factors may limit consistent access to AI tools even where students have a positive attitude toward the technology.
Social influence had the lowest mean among the major explanatory factors. Nevertheless, the overall mean remained above the acceptance threshold, indicating that classmates, lecturers, friends and other students can influence students' decisions to adopt AI tools. The relatively lower mean suggests that students' adoption decisions are driven more strongly by personal perceptions of usefulness and ease of use than by social pressure.
The findings relating to trust and concerns show a mixed situation. Students generally trust

information provided by AI tools, but they also expressed concerns about incorrect information and privacy. This suggests that students recognise the benefits of AI while remaining aware that AI-generated information should be evaluated critically.

Finally, the findings demonstrate a positive level of continued AI adoption. Students reported regular academic use, intention to continue using AI tools, willingness to recommend useful tools to other students and willingness to learn new AI technologies in the future. This indicates that AI tools are becoming an important component of students' academic activities.

## Conclusion

Based on the findings, the study concludes that students' adoption of AI tools is strongly influenced by their perception of the usefulness and ease of use of such technologies. Students generally believe that AI tools help them complete academic activities faster, understand difficult topics and improve their learning experience. However, access to reliable internet, affordability of data, electricity, privacy concerns and the possibility of receiving inaccurate information remain important considerations. Overall, the students demonstrated a positive attitude toward the continued use of AI tools in their academic activities.

## Recommendations

The institution should provide adequate awareness and training programmes to help students use AI tools responsibly and effectively for academic purposes. Lecturers should guide students on appropriate AI use, including how to verify AI-generated information, protect personal information and use AI as a learning support rather than as a replacement for independent thinking. The institution should also improve access to reliable internet services, electricity and digital facilities to reduce barriers associated with the use of AI technologies.

Students are also encouraged to develop responsible and critical AI-use skills by verifying information generated by AI tools before using it in academic work. They should be encouraged to explore useful AI applications relevant to their studies while maintaining academic integrity and avoiding excessive dependence on AI. Future institutional policies should provide clear guidelines on acceptable academic use of AI tools so that students can benefit from the technology while maintaining originality, critical thinking and responsible learning practices.

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