

IMPACT OF ETHICAL AI PRACTICES ON AI-ENABLED DECISION-MAKING EFFECTIVENESS: EVIDENCE FROM HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

Artificial Intelligence is increasingly used in higher education for teaching, learning, research, assessment, academic administration, and institutional decision-making. While AI-enabled systems support efficiency and innovation, their use also raises ethical concerns related to transparency, accountability, privacy protection, and human oversight. This study examines the influence of selected ethical AI practices on AI-enabled decision-making effectiveness in higher education institutions, with specific reference to commerce, economics, and management-oriented academic settings. The study adopts a quantitative research design and uses data collected from 276 respondents. AI transparency, AI accountability, privacy protection, and human oversight are considered independent variables, while AI-enabled decision-making effectiveness is treated as the dependent variable. Multiple regression analysis was applied to test the proposed relationships. The findings reveal that all four ethical AI practices have a significant positive influence on AI-enabled decision-making effectiveness. Human oversight emerged as the strongest predictor, followed by AI transparency, AI accountability, and privacy protection. The regression model explains 55.1% of the variance in AI-enabled decision-making effectiveness, indicating strong explanatory power. The study contributes to responsible AI literature by providing empirical evidence that AI-supported decisions become more effective when they are transparent, accountable, privacy-sensitive, and supported by human judgment. The findings suggest that higher education institutions should treat ethical AI adoption as a governance priority rather than a purely technological initiative.

Keywords: Ethical AI Practices; AI Transparency; AI Accountability; Privacy Protection; Human Oversight; AI-Enabled Decision-Making Effectiveness; Higher Education.

INTRODUCTION

Artificial Intelligence has become an important force in higher education, influencing teaching, learning, research, assessment, academic administration, and institutional decision-making. AI-enabled tools are now used to support academic writing, student services, data analysis, research assistance, assessment design, administrative planning, and decision-support activities. While these developments offer opportunities for efficiency, innovation, and improved institutional performance, they also raise concerns regarding the ethical use of AI in academic and managerial contexts (Turková et al., 2025; Nguyen et al., 2023; Holmes et al., 2021).

In higher education institutions, AI-supported decisions may affect students, faculty, administrators, and institutional stakeholders. Therefore, AI adoption cannot be treated only as a technological advancement; it must also be examined as a governance and decision-making issue. Ethical concerns such as transparency, accountability, privacy protection, and human oversight are particularly important because they influence how stakeholders

understand, accept, and rely on AI-supported decisions (Bleher & Braun, 2023; McCormack et al., 2025; Hauer, 2022).

Although prior studies have widely discussed ethical AI through broad themes such as fairness, trust, academic integrity, AI literacy, and responsible governance, much of the existing literature remains conceptual, policy-oriented, or framework-based. Limited empirical evidence is available on how selected ethical AI practices directly influence AI-enabled decision-making effectiveness, especially in commerce, economics, and management-oriented higher education settings (Ferrario et al., 2020; Zanolli, 2025; Brusseau, 2021; Coghlan et al., 2021).

AI-enabled decision-making effectiveness in this study refers to the usefulness, reliability, fairness, timeliness, and contextual appropriateness of AI-supported decisions. In academic and administrative environments, decision-making effectiveness should not be assessed only through speed or automation. It must also consider ethical reliability, stakeholder confidence, responsible data use, and human supervision, especially where decisions require contextual judgment and institutional responsibility (Bhardwaj, 2025; Spathopoulou et al., 2025; Lim et al., 2025; Holmes et al., 2023).

Accordingly, the present study examines the influence of AI transparency, AI accountability, privacy protection, and human oversight on AI-enabled decision-making effectiveness among 276 respondents from higher education institutions. Using a quantitative research design and multiple regression analysis, the study aims to provide empirical evidence on responsible AI adoption in commerce, economics, and management-oriented higher education. The study also offers practical insights for institutions seeking to improve AI-supported decisions through ethical governance and human-centered implementation.

REVIEW OF LITERATURE

Artificial Intelligence has become increasingly significant in higher education, academic administration, research, assessment, and institutional decision-making. Its application is no longer limited to classroom support; it now influences academic integrity, administrative efficiency, student support, research assistance, and decision-support systems. The growing use of AI has also raised ethical concerns related to transparency, accountability, privacy, fairness, bias, and human oversight. In commerce, economics, and management-oriented higher education, responsible AI should therefore be viewed not merely as a technical tool, but as a governance issue that affects institutional decisions, stakeholder confidence, and human values. Turková et al. (2025) emphasize that students' ethical understanding of AI use depends strongly on the clarity of institutional rules and guidelines. Similarly, Nguyen et al. (2023) identify transparency, accountability, privacy, security, inclusiveness, and human-centeredness as essential principles for ethical AI in education. Holmes et al. (2021) further argue that good intentions alone are insufficient because AI systems may still create ethical risks through biased data, weak accountability, or unclear pedagogical choices. These studies indicate that ethical AI practices must be embedded into institutional processes rather than treated as general policy statements. Responsible AI governance also requires the translation of ethical principles into practice. Bleher and Braun (2023) point out that AI ethics often suffers from a theory-practice gap, where principles such as fairness, transparency, and accountability are discussed conceptually but are not always operationalized in real institutional settings. McCormack et al. (2025) provide an organizational perspective, showing that trustworthy AI depends on accountability, regulatory compliance, data governance, human oversight, technological robustness, and clear responsibility structures.

Hauer (2022) also stresses that ethical AI must be human-centered, legally grounded, and technically reliable. These contributions support the selection of AI transparency, AI accountability, privacy protection, and human oversight as key independent variables in the present study. Transparency helps users understand AI processes and outputs; accountability clarifies responsibility for AI-supported outcomes; privacy protection safeguards stakeholder data; and human oversight ensures that AI supports rather than replaces human judgment.

Trust is another important concern in AI adoption. Stakeholders are more likely to accept AI-supported systems when they believe such systems are reliable, fair, transparent, and ethically governed. Ferrario et al. (2020) explain that trust in AI should be understood as a layered construct, ranging from simple reliance to reflective trust based on evidence of trustworthiness. Zanotti (2025) further argues that ethical AI debates should focus on building trustworthy AI systems rather than merely increasing user trust. This distinction is important because users may develop misplaced confidence in AI systems if they appear reliable without being transparent or accountable. Brusseau (2021) adds that users trust AI more when they can understand, contest, and responsibly use its outputs. Similarly, Coghlan et al. (2021) show that AI-based proctoring systems affect trust through fairness, privacy, transparency, accountability, and human review. These studies suggest that trust and acceptance of AI are closely connected to ethical safeguards and institutional responsibility. AI-enabled decision-making effectiveness refers to the extent to which AI-supported systems improve the quality, reliability, fairness, usefulness, and contextual appropriateness of decisions. In higher education and management, AI can support teaching, assessment, administration, student support, research, and institutional planning. Decision-making effectiveness should not be measured only through speed or automation. Bhardwaj (2025) cautions that AI lacks human faculties such as contextual judgment, tacit knowledge, and ethical reasoning; AI should support rather than replace human decision-making. Spathopoulou et al. (2025) show that AI adoption depends on faculty readiness, institutional context, and ethical confidence. Lim et al. (2025) demonstrate that ethical concerns such as fairness, privacy, explainability, accountability, and trust are directly connected to learner perceptions and assessment effectiveness. Holmes et al. (2023) also argue that AI ethics must include not only data and algorithms but also educational values, assessment validity, student agency, and institutional responsibility. AI-enabled decision-making effectiveness must be understood as a multidimensional outcome shaped by ethical governance, responsible use, and human supervision.

The reviewed studies show that ethical AI practices are essential for responsible decision-making in higher education. Limited empirical research has examined how AI transparency, AI accountability, privacy protection, and human oversight directly influence AI-enabled decision-making effectiveness. This study addresses that gap through a regression-based model in the context of commerce, economics, and management-oriented higher education.

RESEARCH GAP

The reviewed literature shows that ethical AI has been widely examined through transparency, accountability, privacy, fairness, trust, academic integrity, AI literacy, and responsible governance. However, most existing studies are conceptual, policy-oriented, or focused on broad ethical frameworks and education-specific issues. Limited empirical evidence explains how selected ethical AI practices directly influence AI-enabled decision-making effectiveness in management-oriented higher education contexts. In particular, AI transparency, AI accountability, privacy protection, and human oversight remain underexplored as measurable predictors of decision-making effectiveness. Further, limited

evidence is available from Indian higher education institutions, especially in commerce, economics, and management disciplines. The present study addresses this empirical and contextual gap by using regression analysis to examine whether selected ethical AI practices significantly influence AI-enabled decision-making effectiveness.

OBJECTIVES OF THE STUDY

1. To examine the influence of AI transparency on AI-enabled decision-making effectiveness in higher education institutions.
2. To analyze the effect of AI accountability on AI-enabled decision-making effectiveness in higher education institutions.
3. To assess the influence of privacy protection on AI-enabled decision-making effectiveness in higher education institutions.
4. To determine the effect of human oversight on AI-enabled decision-making effectiveness in higher education institutions.
5. To evaluate the combined influence of selected ethical AI practices on AI-enabled decision-making effectiveness in commerce, economics, and management-oriented higher education settings.

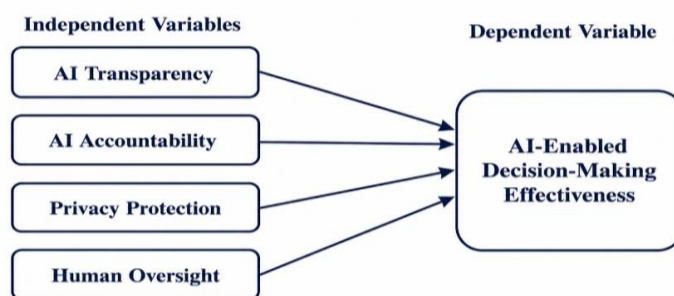
RESEARCH QUESTIONS

1. How does AI transparency influence AI-enabled decision-making effectiveness in higher education institutions?
2. How does AI accountability influence AI-enabled decision-making effectiveness in higher education institutions?
3. How does privacy protection influence AI-enabled decision-making effectiveness in higher education institutions?
4. How does human oversight influence AI-enabled decision-making effectiveness in higher education institutions?
5. What is the combined influence of AI transparency, AI accountability, privacy protection, and human oversight on AI-enabled decision-making effectiveness in commerce, economics, and management-oriented higher education settings?

CONCEPTUAL FRAMEWORK

The conceptual framework of the study explains the relationship between selected ethical AI practices and AI-enabled decision-making effectiveness in higher education institutions. The framework is developed based on the assumption that ethical dimensions of AI use play an important role in improving the quality, reliability, fairness, and acceptability of AI-supported decisions. In this model, AI transparency, AI accountability, privacy protection, and human oversight are considered as independent variables, while AI-enabled decision-making effectiveness is considered as the dependent variable. AI transparency refers to the extent to which AI processes, outputs, and usage purposes are clear and understandable to users. Transparent AI systems enable stakeholders to understand how AI-supported recommendations or decisions are generated, thereby improving confidence in the decision-making process. AI accountability refers to the presence of responsibility and answerability for AI-supported outcomes. When institutions clearly define who is responsible for AI-based decisions, users are more likely to perceive such decisions as reliable and ethically governed. Privacy protection represents the safeguarding of user data, consent, confidentiality, and

responsible data handling in AI systems. Since AI tools often rely on large volumes of academic, administrative, or personal data, privacy protection becomes essential for ethical and effective decision-making. Human oversight refers to the involvement of human judgment, review, and intervention in AI-supported decisions. This ensures that AI acts as a decision-support mechanism rather than a complete replacement for human reasoning. The dependent variable, AI-enabled decision-making effectiveness, refers to the extent to which AI-supported decisions are useful, accurate, fair, timely, reliable, and contextually appropriate. The framework proposes that ethical AI practices improve decision-making effectiveness by ensuring that AI-supported decisions are not only efficient but also transparent, accountable, privacy-sensitive, and human-supervised.



Source: Author's Own Work

HYPOTHESES DEVELOPMENT

The hypotheses of the study are developed based on the conceptual framework, which proposes that selected ethical AI practices influence AI-enabled decision-making effectiveness in higher education institutions. In the present study, AI transparency, AI accountability, privacy protection, and human oversight are considered as independent variables, while AI-enabled decision-making effectiveness is considered as the dependent variable. The hypotheses are framed to examine whether each ethical AI practice significantly contributes to the quality, reliability, fairness, and usefulness of AI-supported decisions.

AI TRANSPARENCY AND AI-ENABLED DECISION-MAKING EFFECTIVENESS

AI transparency refers to the extent to which AI processes, purposes, recommendations, and outputs are clear and understandable to users. In higher education institutions, transparent AI systems help stakeholders understand how AI-supported decisions are generated and how such outputs should be interpreted. When AI systems are transparent, users are more likely to evaluate the logic, limitations, and relevance of AI-generated recommendations. Transparency also reduces uncertainty and supports informed decision-making because faculty members, students, and administrators can better understand the basis of AI-assisted outcomes. In management-oriented higher education settings, where AI may support academic planning, assessment, research, and administrative decisions, transparency becomes essential for improving the credibility and usefulness of AI-supported decisions. The study proposes that AI transparency positively influences AI-enabled decision-making effectiveness.

H1: AI transparency has a significant positive influence on AI-enabled decision-making effectiveness in higher education institutions.

AI ACCOUNTABILITY AND AI-ENABLED DECISION-MAKING EFFECTIVENESS

AI accountability refers to the presence of responsibility, answerability, and institutional control over AI-supported decisions. In higher education institutions, accountability becomes important because AI outputs may influence academic evaluation, administrative planning, student support, research assistance, and institutional governance. When responsibility for AI-based outcomes is clearly defined, users are more likely to perceive AI-supported decisions as reliable and ethically governed. Accountability also ensures that errors, biases, or unintended consequences can be reviewed and corrected through responsible institutional mechanisms. In the absence of accountability, AI-supported decision-making may become uncertain, opaque, or difficult to challenge. Clear accountability structures can strengthen decision-making effectiveness by ensuring that AI is used responsibly, ethically, and under institutional supervision.

H2: AI accountability has a significant positive influence on AI-enabled decision-making effectiveness in higher education institutions.

PRIVACY PROTECTION AND AI-ENABLED DECISION-MAKING EFFECTIVENESS

Privacy protection refers to the safeguarding of personal, academic, administrative, and institutional data used in AI systems. Since AI tools often depend on large volumes of user data, responsible data handling is essential for ethical and effective decision-making. In higher education institutions, privacy concerns may arise in relation to student records, academic performance, research data, assessment information, and administrative data. When users believe that their data is collected, stored, and used responsibly, they are more likely to accept AI-supported decisions. Privacy protection also improves decision-making effectiveness by reducing ethical risks, increasing stakeholder confidence, and ensuring that AI systems operate within acceptable institutional and legal boundaries. Privacy protection is expected to play an important role in strengthening the effectiveness of AI-enabled decision-making.

H3: Privacy protection has a significant positive influence on AI-enabled decision-making effectiveness in higher education institutions.

HUMAN OVERSIGHT AND AI-ENABLED DECISION-MAKING EFFECTIVENESS

Human oversight refers to the involvement of human judgment, review, monitoring, and intervention in AI-supported decisions. Although AI can process large volumes of data and provide useful recommendations, it may lack contextual understanding, ethical reasoning, and sensitivity to complex human situations. In higher education institutions, decisions related to students, faculty, assessment, academic planning, and institutional management often require human interpretation and professional judgment. Human oversight ensures that AI functions as a decision-support system rather than a complete replacement for human reasoning. It also allows users to verify AI outputs, correct errors, identify bias, and ensure that decisions remain fair, contextually appropriate, and ethically acceptable. Human oversight is expected to improve the effectiveness of AI-enabled decision-making.

H4: Human oversight has a significant positive influence on AI-enabled decision-making effectiveness in higher education institutions.

RESEARCH METHODOLOGY

The study adopts a quantitative research design to examine the influence of selected ethical AI practices on AI-enabled decision-making effectiveness. Since the study tests the effect of four independent variables on one dependent variable, a multiple regression approach is appropriate. The population of the study consists of stakeholders from higher education institutions, particularly from commerce, economics, and management disciplines. The respondents include faculty members, postgraduate students, research scholars, and academic administrators who have basic awareness or exposure to AI-enabled tools used in academic, research, or administrative activities. The sample size of the study is 276 respondents. Data will be collected using a structured questionnaire based on a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The questionnaire measures five constructs: AI transparency, AI accountability, privacy protection, human oversight, and AI-enabled decision-making effectiveness. The study uses AI transparency, AI accountability, privacy protection, and human oversight as independent variables, while AI-enabled decision-making effectiveness is treated as the dependent variable. The collected data will be analyzed using descriptive statistics, reliability analysis, correlation analysis, and multiple regression analysis.

The regression model proposed for the study is:

$$AIDME = \beta_0 + \beta_1(AIT) + \beta_2(AIA) + \beta_3(PP) + \beta_4(HO) + \epsilon$$

Where AIDME represents AI-enabled decision-making effectiveness, AIT represents AI transparency, AIA represents AI accountability, PP represents privacy protection, and HO represents human oversight. The model will examine whether the selected ethical AI practices significantly influence AI-enabled decision-making effectiveness in higher education institutions.

MEASUREMENT OF VARIABLES

The study measures five constructs using a structured questionnaire based on a five-point Likert scale. AI Transparency is measured through statements related to the clarity, understandability, and visibility of AI processes, outputs, and recommendations. This construct captures whether users are able to understand how AI-supported decisions are generated and how such decisions should be interpreted. AI Accountability is measured through items that assess responsibility, answerability, and institutional control over AI-supported outcomes. It focuses on whether higher education institutions clearly define who is responsible for AI-based decisions, errors, and consequences. Privacy Protection is measured through statements related to data confidentiality, consent, secure handling of personal and academic information, and responsible use of user data in AI systems. This construct reflects the extent to which stakeholders believe their data is protected while using AI-enabled tools. Human Oversight is measured through items that examine the role of human judgment, review, monitoring, and intervention in AI-supported decision-making. It captures whether AI is used as a decision-support mechanism rather than as a complete replacement for human reasoning.

AI-Enabled Decision-Making Effectiveness is measured through statements related to the usefulness, accuracy, reliability, fairness, timeliness, and contextual appropriateness of AI-supported decisions. This dependent variable reflects the extent to which AI improves decision quality in academic, research, administrative, and institutional contexts.

RESULTS AND ANALYSIS

The study examined the influence of AI Transparency, AI Accountability, Privacy Protection, and Human Oversight on AI-Enabled Decision-Making Effectiveness among 276 respondents from higher education institutions. Multiple regression analysis was applied to test the proposed model.

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.742	0.551	0.544	0.423

The model summary indicates a strong relationship between ethical AI practices and AI-enabled decision-making effectiveness. The R value of 0.742 shows a strong positive association between the independent variables and the dependent variable. The R Square value of 0.551 indicates that 55.1% of the variance in AI-enabled decision-making effectiveness is explained by AI transparency, AI accountability, privacy protection, and human oversight. The adjusted R Square value of 0.544 confirms that the model has strong explanatory power even after adjusting for the number of predictors.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	59.52	4	14.88	83.142	0.00
Residual	48.5	271	0.179		
Total	108.02	275			

The ANOVA result shows that the overall regression model is statistically significant, $F(4, 271) = 83.142$, $p < 0.001$. This means that the selected ethical AI practices jointly have a significant influence on AI-enabled decision-making effectiveness. The regression model is suitable for explaining the impact of AI transparency, AI accountability, privacy protection, and human oversight on decision-making effectiveness.

REGRESSION COEFFICIENTS

Predictor Variable	Unstandardized Beta (B)	Std. Error	Standardized Beta	t-value	Sig.
Constant	0.612	0.201	—	3.045	0.003
AI Transparency	0.228	0.047	0.243	4.851	0.000
AI Accountability	0.196	0.05	0.207	3.92	0.000
Privacy Protection	0.151	0.044	0.168	3.432	0.001
Human Oversight	0.287	0.046	0.315	6.239	0.000

The regression coefficients show that all four independent variables have a positive and statistically significant influence on AI-enabled decision-making effectiveness. Human oversight has the strongest effect with the highest standardized beta value of $\beta = 0.315$, indicating that human review, monitoring, and intervention play the most important role in strengthening AI-supported decision-making. AI transparency is the second strongest predictor with $\beta = 0.243$, showing that clear and understandable AI processes improve the effectiveness of AI-enabled decisions. AI accountability also has a significant positive effect with $\beta = 0.207$, suggesting that clearly defined responsibility for AI-supported outcomes

improves decision reliability and institutional confidence. Privacy protection has a significant positive influence with $\beta = 0.168$, indicating that responsible data handling and confidentiality contribute to the acceptance and effectiveness of AI-supported decisions.

REGRESSION EQUATION

Based on the unstandardized beta values, the regression equation is:

$$AIDME = 0.612 + 0.228(AIT) + 0.196(AIA) + 0.151(PP) + 0.287(HO)$$

Where:

AIDME = AI-Enabled Decision-Making Effectiveness

AIT = AI Transparency

AIA = AI Accountability

PP = Privacy Protection

HO = Human Oversight

This equation indicates that a one-unit increase in AI transparency increases AI-enabled decision-making effectiveness by 0.228 units, while a one-unit increase in AI accountability increases it by 0.196 units. Similarly, a one-unit increase in privacy protection increases decision-making effectiveness by 0.151 units, and a one-unit increase in human oversight increases it by 0.287 units, assuming other variables remain constant.

Hypothesis Testing Summary

Hypothesis	Relationship Tested	Beta Value	Sig.	Decision
H1	AI Transparency → AI-Enabled Decision-Making Effectiveness	0.243	0.00	Supported
H2	AI Accountability → AI-Enabled Decision-Making Effectiveness	0.207	0.00	Supported
H3	Privacy Protection → AI-Enabled Decision-Making Effectiveness	0.168	0.001	Supported
H4	Human Oversight → AI-Enabled Decision-Making Effectiveness	0.315	0.00	Supported

The hypothesis testing results confirm that all four proposed hypotheses are supported. AI transparency, AI accountability, privacy protection, and human oversight significantly and positively influence AI-enabled decision-making effectiveness.

DISCUSSION OF FINDINGS

The findings of the study reveal that ethical AI practices significantly influence AI-enabled decision-making effectiveness in higher education institutions. The regression results confirm that AI transparency, AI accountability, privacy protection, and human oversight positively contribute to the quality, reliability, fairness, and usefulness of AI-supported decisions. This indicates that AI-enabled decision-making cannot be evaluated only in terms of automation, speed, or technological efficiency; rather, it must be assessed through ethical and governance-oriented dimensions.

AI transparency was found to have a significant positive influence, suggesting that stakeholders are more likely to perceive AI-supported decisions as effective when AI processes, outputs, and recommendations are clear and understandable. This supports the

view that transparency reduces uncertainty and improves confidence in AI-enabled decisions. AI accountability also showed a significant positive effect, indicating that clearly defined responsibility for AI outcomes strengthens institutional trust and improves the credibility of AI-supported decision-making.

Privacy protection emerged as another significant factor, showing that responsible data handling is essential in higher education contexts where AI systems may use academic, personal, administrative, and institutional data. When stakeholders believe that their data is protected, they are more likely to accept AI-enabled decisions as ethical and reliable.

Among all predictors, human oversight showed the strongest influence on AI-enabled decision-making effectiveness. This finding indicates that stakeholders value AI most when it supports, rather than replaces, human judgment. In academic and administrative contexts, decisions often require contextual understanding, ethical reasoning, and professional experience. Human review and intervention remain essential for ensuring fair and responsible AI-supported decisions.

The study confirms that ethical AI practices are not merely policy ideals but practical requirements for effective decision-making. For commerce, economics, and management-oriented higher education institutions, responsible AI governance should include transparent systems, clear accountability, strong privacy safeguards, and continuous human supervision.

FINDINGS OF THE STUDY

The study produced the following major findings:

1. AI transparency has a significant positive influence on AI-enabled decision-making effectiveness. This indicates that when AI processes, outputs, and recommendations are clear and understandable, stakeholders perceive AI-supported decisions as more reliable and useful.
2. AI accountability has a significant positive influence on AI-enabled decision-making effectiveness. This shows that clearly defined responsibility for AI-supported outcomes strengthens institutional confidence and improves the reliability of AI-enabled decisions.
3. Privacy protection significantly improves AI-enabled decision-making effectiveness. The finding indicates that responsible handling of personal, academic, administrative, and institutional data is essential for stakeholder confidence in AI-supported decisions.
4. Human oversight has the strongest influence on AI-enabled decision-making effectiveness. This suggests that stakeholders value AI most when it supports human judgment rather than replacing human decision-makers.
5. The overall regression model is statistically significant. The selected ethical AI practices jointly explain a substantial proportion of variation in AI-enabled decision-making effectiveness, confirming the relevance of ethical AI governance in higher education institutions.
6. Ethical AI practices are practical contributors to decision-making effectiveness. The findings show that responsible AI use is not only a policy or ethical concern but also a managerial requirement for improving AI-supported decisions in commerce, economics, and management-oriented higher education settings.

MANAGERIAL AND INSTITUTIONAL IMPLICATIONS

The findings of the study offer important implications for higher education institutions, particularly those operating in commerce, economics, and management disciplines. Since AI transparency, AI accountability, privacy protection, and human oversight significantly influence AI-enabled decision-making effectiveness, institutions should treat responsible AI adoption as a governance priority rather than a purely technological initiative.

First, institutions should establish clear AI transparency practices. Stakeholders must be informed about where AI is used, how AI-supported recommendations are generated, and what limitations exist in AI outputs. Transparent communication can reduce uncertainty and improve acceptance of AI-enabled decisions in academic, administrative, and research-related activities.

Second, higher education institutions should create clear accountability structures for AI-supported decisions. Responsibility should be assigned for monitoring AI tools, reviewing AI-generated outputs, correcting errors, and addressing unintended consequences. This is especially important in areas such as student evaluation, academic planning, institutional reporting, and administrative decision-making.

Third, institutions must strengthen privacy protection and data governance. Since AI systems often depend on personal, academic, and institutional data, strict measures are required for data confidentiality, consent, secure storage, and responsible use. Privacy safeguards can improve stakeholder confidence and reduce ethical risks associated with AI adoption.

Fourth, the strong influence of human oversight shows that AI should be used as a decision-support system, not as a replacement for human judgment. Faculty members, administrators, and academic leaders should retain final decision-making authority, especially in cases involving students, assessment, research integrity, and institutional policy.

The study suggests that effective AI adoption requires a balanced approach where innovation is supported by ethical control. Institutions that integrate transparency, accountability, privacy protection, and human supervision into their AI practices are more likely to achieve reliable, fair, and contextually appropriate decision-making outcomes.

CONCLUSION

The study examined the influence of selected ethical AI practices on AI-enabled decision-making effectiveness in higher education institutions. The findings confirm that AI transparency, AI accountability, privacy protection, and human oversight have a significant positive impact on AI-enabled decision-making effectiveness. Among these, human oversight emerged as the strongest predictor, indicating that AI is most effective when it supports human judgment rather than replacing it.

The study contributes to responsible AI literature by providing regression-based empirical evidence in the context of commerce, economics, and management-oriented higher education. It highlights that effective AI adoption depends not only on technological capability but also on ethical governance. Institutions should ensure transparent AI processes, clear accountability, strong privacy safeguards, and continuous human supervision to improve the reliability, fairness, and usefulness of AI-supported decisions.

LIMITATIONS AND FUTURE SCOPE

The study has certain limitations that should be considered while interpreting the findings. First, the study is limited to higher education institutions, particularly in the context of

commerce, economics, and management-oriented disciplines. The findings may not be fully generalizable to other academic disciplines or non-educational sectors. Second, the study is based on responses from 276 respondents, which is adequate for regression analysis; A larger and more diverse sample could provide broader insights. Third, the study uses a cross-sectional survey design, where data are collected at one point in time. It does not capture changes in perceptions of ethical AI practices over a longer period.

Another limitation is that the study is based on self-reported perceptions. Respondents' answers may be influenced by their level of AI awareness, personal experience, institutional exposure, or subjective understanding of AI-enabled decision-making. Further, the study examines only four ethical AI practices: AI transparency, AI accountability, privacy protection, and human oversight. Other relevant factors such as fairness, explainability, AI literacy, institutional readiness, trust in AI, and regulatory compliance were not included in the regression model.

Future studies can extend this research by including a larger sample across different states, disciplines, and types of higher education institutions. Comparative studies between faculty, students, administrators, and research scholars may also provide deeper stakeholder-specific insights. Future researchers may also use Structural Equation Modeling to examine mediating or moderating effects, such as the role of trust in AI, AI literacy, or institutional readiness. Longitudinal studies can further help understand how perceptions of responsible AI practices evolve over time. Additionally, future research may compare higher education institutions with corporate, public-sector, or technology-driven organizations to understand ethical AI-enabled decision-making in broader management contexts.

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