Impact of AI-Driven Decision-Making on Strategic Performance in the IT Sector: The Role of Organizational Readiness and Human–AI Collaboration

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Abstract
Artificial Intelligence (AI) is increasingly embedded in organizational decision-making within the IT sector, yet empirical evidence linking AI-driven decision-making to strategic performance remains limited, particularly regarding the roles of organizational readiness and human–AI collaboration. This study examines AI-driven decision-making and its relationship with strategic performance among respondents with academic, internship, or professional exposure to the IT sector in India. Primary data were collected using an online questionnaire developed on a 5-point Likert scale. 158 responses were analyzed using descriptive statistics, Cronbach's alpha, chi-square tests, one-way ANOVA, Pearson correlation, and linear regression. AI-driven decision-making (M = 3.80), strategic performance (M = 3.99), organizational readiness (M = 4.07), and human–AI collaboration (M = 4.03) were all rated high. Chi-square tests revealed significant associations between AI familiarity, IT exposure, and gender with perceived importance of AI-driven decision-making. ANOVA showed significant differences in all constructs by IT sector exposure and AI familiarity. AI-driven decision-making was a strong positive predictor of strategic performance ($R^2 = 0.401$, $\beta = 0.514$, $p < .001$). In the combined model, organizational readiness and human–AI collaboration jointly explained 32.1% of the variance in AI-driven decision-making effectiveness, though organizational readiness was the only statistically significant individual predictor ($\beta = 0.77$, $p = 0.003$), reflecting high collinearity between the two factors ($r = 0.921$). These results should be interpreted with caution, as the sample is predominantly composed of undergraduate students with limited direct IT work experience, and approximately 24.7% of respondents gave identical ratings across all statements.

Keywords: AI-driven decision-making, strategic performance, organizational readiness, human–AI collaboration, IT sector, chi-square, ANOVA, linear regression.

Introduction

Artificial Intelligence (AI) has become a crucial technology impacting the way information is processed, problems are solved, and decisions are made within business. As organizations have access to massive amounts of data and to technology and predictive analytics, they have also moved beyond the traditional methods of making decisions to more data- and technology-backed means. AI-based decision-making can help organisations to recognise trends, make predictive decisions, assess options, and make quicker, more informed decisions. Studies have shown that AI integration can lead to better decisions, efficiency, prediction, innovation and organization value generation (Kaggwa et al., 2024; Selvarajan, 2021).

In the Information Technology (IT) industry, which relies heavily on data and is highly dynamic, the application of AI-driven decision-making is especially significant. IT organizations are constantly reacting to advancements in technology, shifting customer needs, competition and dynamic markets. By leveraging AI for decision-making, organizations can gain insights from complex data, detect patterns and trends, enhance forecast accuracy, optimise resource deployment, and react swiftly to shifts in market conditions. AI-driven analytics and decision-making have been linked to better

decision-making speed, accuracy, strategic agility, operational efficiency, and competitive advantage (Priyanka et al., 2025; Martins, 2025).

AI-driven decision making can be linked closely to the strategic performance of the organisation. Strategic performance is the way in which an organisation performs in relation to the achievement of strategic objectives, the ability to respond to the market and enhance its competitiveness, its use of resources, and the ability to innovate and/or deliver long-term results. Existing studies have shown that AI can help with these aspects by enhancing the quality and timeliness of strategic decisions, bolstering forecasting capabilities, and empowering organizations to better adapt to evolving contexts. For instance, Saha et al. (2024) argue that AI-driven decision-making positively impacts strategic performance, and other research shows links between AI-supported decision-making and aspects of agility, innovation, resource optimization, and organizational performance.

But the power of AI-based decision-making isn't solely reliant on AI technologies. AI readiness is essential for successful AI implementation. AI adoption demands the right technological setup, trustworthy data, proficient workforce, training, management assistance, and adequate resources for organizations to seamlessly embed AI into their operations. Several challenges have been identified in the effectiveness of implementing AI, such as data quality, technological infrastructure, workforce capacity, and organizational readiness (Selvarajan, 2021; Badmus et al., 2024; Oraif, 2024).

Human-AI collaboration is also a key component. AI systems can analyze vast quantities of information and detect trends with speed and accuracy, while human decision makers bring their expertise, context, judgment, and accountability. Hence, AI-generated insights can complement with human expertise for effective decision making. Attar (2025) highlights the symbiotic nature of AI-driven analysis and managerial decisions, and studies of human-AI interaction indicate that integrating AI with human expertise can improve the quality of decisions and strategic planning.

Though the literature on AI and organisational decision making is rapidly expanding, there is a need for more empirical research into the role of AI-based decision making in strategic performance in the IT industry, with a focus on the role of organizational readiness and human-AI collaboration. While many existing studies explore the uses and benefits of AI and the potential of technology, far less has been written about the interplay between AI-based decision-making and strategic performance within a particular industry. With this in mind, this research aims at investigating how the use of AI in decision-making affects strategic performance in the IT industry, taking into account the importance of human-AI collaboration and organisational readiness. The study is intended to help better understand the relationship between these factors and effective strategic decision-making in an IT organization with the support of AI.

Research Gap

Although AI (Artificial Intelligence) has become increasingly recognized as a valuable tool for the IT industry, there is limited empirical evidence to date that shows how AI-based decision making relates to organizations' strategic performance. While there is much existing work on technological use and benefits of AI, there is relatively less on the strategic implications on organizational performance. In addition, the impact of organizational readiness and human-AI interactions in facilitating effective use of AI for decision-making has not been fully investigated. Thus, more targeted research is needed that investigates the role of AI in strategic decision-making processes and analyzes the implications for IT organisations, focusing on readiness and human-AI interaction.

Conceptual Framework

The framework is based on the idea that the outcome is strategic performance (SP). AI-driven decision-making (AIDM) is treated as the independent variable, while organizational readiness (OR) and human–AI collaboration (HAC) are the two influencing factors examined for their role in strengthening the effectiveness of AI-driven decision-making.

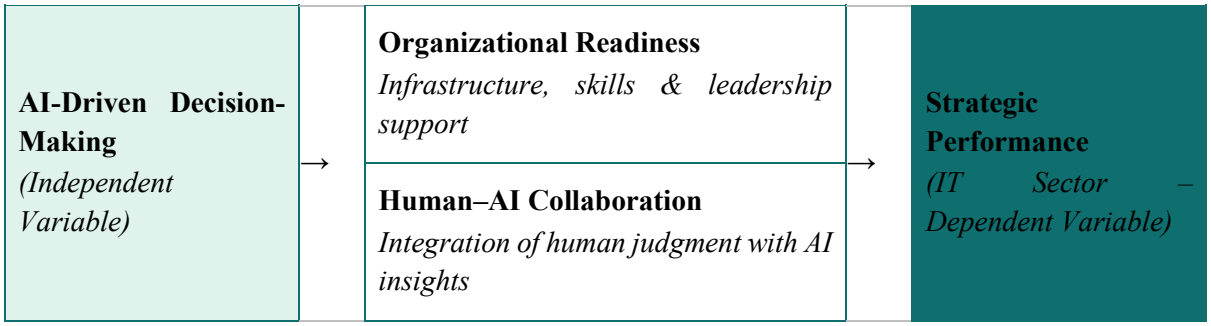


Figure 1. The study was based on the following conceptual framework

Review of Literature

Kaggwa et al. (2024) examine the impact of AI on strategic business decisions and conventional business strategies. The research correlates the incorporation of AI with business agility, company performance, strategic planning, innovation, and sustainability. The results show that AI enhances decision making, efficiency, innovation, and value creation. The study focuses on strategic orientation to organizational goals, coupled with sound management, knowledge and human engagement.

Attar (2025) explores strategic decision-making processes, combining the analytical capabilities of AI with managerial intuition and ethical considerations. This study caters to the connection between AI-driven decision-making and human experience, leadership, ethics, and conflict resolution. The results indicate that the integration of AI insights and human expertise leads to enhanced decision quality and mitigates constraints and biases. The study highlights the need for human oversight, transparency and accountability, and complementary roles of AI and humans.

Selvarajan (2021) explores the benefits of AI-driven analytics in optimizing and guiding industry-specific decision-making. The study correlates AI analytics with predictive decision making, operational efficiency, resource optimization, customer management and risk control. The results suggest better prediction, cost savings, efficiency and strategic foresight. The research highlights the importance of AI readiness, employee training, change management, and appropriate implementation practices.

Dhobale et al. (2025) the authors explore the impact of AI in reshaping strategic decision-making and revolutionizing business models for sustainable growth. The study will link AI to data-driven insights, resource allocation, market analysis, risk assessment, supply-chain optimization, and innovation. The results indicate that the use of AI can benefit organizations in terms of agility, resilience, scalability, and responsiveness. The research highlights the need for strategic foresight, adaptability, and a human-centered approach.

Prakash (2025) the study is focusing on the changing landscape of corporate strategy, driven by the power of AI, with a particular emphasis on the transformative capabilities of machine learning, predictive analytics, and intelligent automation. The study links AI to strategic planning, competitive positioning, risk management, resource allocation, innovation and agility. Results suggest that AI enhances prediction accuracy, responsiveness, and adaptability. The study highlights the need for a well-rounded approach, weighing both algorithmic intelligence and human judgment and organizational readiness.

Alsaggad & Konyalılar (2025) the authors explore the potential of AI in strategic management, specifically its role in data-driven decision-making and organizational transformation. The study relates AI to decision-support systems, analytics, data integration, customer experience, resource allocation, and strategic management. Results show the benefits of increased efficiency and effective strategic decisions, as well as concerns about privacy, bias, job loss, and skills. The key aspects of the proposed framework include data integration, analytics, responsible implementation, and strategic alignment.

Chandana Charitha & Hemaraju (2023) explore the impact of AI in organizational decision-making, including the benefits and challenges. The research links AI decision-making to data analysis, productivity, accuracy, risk management, innovation and strategic planning. The results show that AI enhances pattern detection, risk evaluation,

resource management and decision-making. Transparency, accountability, data privacy and ongoing human involvement are all stressed.

Nalini & Maria John Joesph (2025) explore the benefits of AI-driven strategy management, including decision-making, operational efficiency, and innovation. The study relates the new technology of AI-based analysis and predictive insights to risk management, customer personalization, resource allocation, and innovation. Results show that AI aids in strategic decisions, market predictability, workflow efficiency, and growth potential. The study emphasizes on data driven management for competitiveness, agility, productivity and customer satisfaction.

Rahate et al. (2025) analyze how AI can influence business tactics and decision-making using data-driven insights, forecasting analytics, and automation. The research relates AI adoption to decision making time, speed, accuracy, efficiency, risk reduction, competitive advantage, and organizational performance. The results show that there is a significant improvement in forecasting, resource allocation, risk assessment and strategic responsiveness. Accessibility of data, organizational culture, expertise, and collaboration between humans and AI are all critical to successful adoption.

Zhu (2025) researches the use of AI in strategic management and how it impacts efficiency in decision-making within organizations and industries. The study correlates the adoption of AI with data infrastructure, readiness, strategic alignment, and resource optimization. Results indicate better decision making, prediction and efficiency. The study highlights the need for the synergy of human intelligence and the role of AI, as well as organizational preparedness and strategic alignment.

Saha et al. (2023) discuss how AI influences business strategy and decision-making. The study aligns AI integration with strategic alignment, operational efficiency, innovation, resource optimization, and data-driven decisions. Results show a better accuracy, speed, productivity and competitive advantage in the decision making. The study identifies ethical issues, data privacy, organizational resistance, skills shortages and the need for human oversight.

Wang (2024) discusses how AI can be used for business strategies and how it can contribute to competitiveness and organizational performance. The study examines the intersection of predictive analytics, machine learning, NLP, and automation in forecasting, customer management, product development, and operational efficiency. Data indicates that AI contributes to decision-making, optimizing resources, enhancing customer experiences, and fostering innovation. The study highlights the importance of privacy, skilled staff, investment needs, and efficient data management.

Saha et al. (2024) analyze the impact of AI decision making on strategic performance with regards to efficiencies, competitiveness and long term value creation. The study builds the link between AI-based decision-making and the Resource Based View, Dynamic Capabilities Theory, organizational readiness and trust in AI. The results suggest that readiness and managerial trust have a positive effect on strategic performance, making it more effective. Technological infrastructure, skilled human resources, human trust are highlighted by the study.

Rakhimova & Azamov (2025) analyze AI-based decision support systems for strategic planning in various areas of management, with AHP and regression–correlation analysis. The study recognizes uses in investment assessment, resource planning, performance tracking and future planning. The findings reveal 47 managerial applications and there is a high positive correlation ($r = 0.82$) between regression forecasting and AHP prioritization. The study highlights managerial judgement, technological readiness, competence and organizational adaptability.

Priyanka et al. (2025) examine the role of AI in business analytics for informed decision-making in the IT Industry. The study reviews applications of AI in planning and forecasting and how they impact decision quality. Research from IT professionals suggests that AI is improving decision accuracy, forecasting, planning efficiency, and decision speed, but that readiness of the workforce is an issue. Predictive analytics is used especially in resource allocation, budgeting and market forecasting.

Objectives and Hypotheses

Objectives

- 1. To gain conceptual knowledge about the impact of AI decision making on organization's strategic performance including organizational readiness and human-AI collaboration.

- 2. To understand how Artificial Intelligence-based decision making affects the organizational strategic performance in the IT industry.
- 3. To investigate how organizational readiness and human-AI collaboration affect the effectiveness of decision-making using AI in the IT industry.

Hypotheses

- H1: AI decision making is not related to strategic performance in the IT industry (Null); improved strategic performance in the IT sector can be significantly attributed to the use of AI in decision-making (Alternative).
- H2: Organizational readiness and human–AI collaboration do not have a significant influence on the effectiveness of AI-driven decision-making in the IT sector (Null); organizational readiness and human–AI collaboration have a significant positive influence on the effectiveness of AI-driven decision-making in the IT sector (Alternative).

Research Methodology

Research design

The study is a quantitative, descriptive-cum-analytical cross-sectional survey design. The primary data were gathered directly from respondents with academic, internship, or professional exposure to the IT sector, using a structured, self-administered questionnaire made available online.

Data collection and sampling

The sampling technique used was convenience sampling, in which respondents were chosen based on their availability and willingness to participate. A total of 158 valid responses were received through the online form and retained for analysis. The findings of this study cannot be generalised to all IT sector professionals, as the sample is non-random and predominantly composed of students.

Instrument

This questionnaire consists of two sections. Part A gathers demographic and professional profile data — age, gender, educational qualification, area of specialization, exposure to the IT sector, familiarity with AI, prior use of AI-based tools, and perceived importance of AI-driven decision-making. Part B consists of 30 statements rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), organized into four constructs:

- AI-Driven Decision-Making (AIDM): 8 items — support, reliability, speed, accuracy, and future use of AI in decisions.
- Organizational Strategic Performance (SP): 8 items — strategic goals, competitiveness, resource utilization, innovation, operational efficiency, and long-term outcomes.
- Organizational Readiness (OR): 7 items — infrastructure, data reliability, employee skills, training, management support, and resource adequacy.
- Human–AI Collaboration (HAC): 7 items — combining AI insights with judgment, critical evaluation, retained responsibility, and complementary human expertise.

Construct score is an average of its items (range 1–5). A score below 2.50 is considered Low, 2.50–3.49 is considered Moderate, and 3.50 or higher is considered High.

Statistical tools

Data preparation and analysis were performed using Python (pandas, SciPy, statsmodels). Cronbach's alpha was used to test reliability. Chi-square tests of independence, one-way ANOVA, Pearson correlation, and ordinary least squares regression were used at the 5% significance level. Variance Inflation Factor (VIF), Durbin–Watson, and Shapiro–Wilk diagnostics were used to check regression assumptions.

Period of Study

Data collection was conducted between August 31 and September 15, 2026.

Data Analysis and Interpretation

Respondent profile

Table 1. Profile of respondents (N = 158)

Age

Category	Frequency	Percentage
18-20 years	125	79.1%
21-23 years	29	18.4%
Above 26 years	4	2.5%

Gender

Category	Frequency	Percentage
Male	118	74.7%
Female	40	25.3%

Educational Qualification

Category	Frequency	Percentage
Undergraduate	130	82.3%
Postgraduate	10	6.3%
Professional Certification	9	5.7%
12th	5	3.2%
Doctorate	4	2.5%

Area of Specialization

Category	Frequency	Percentage
Business Analytics / Data Analytics	67	42.4%
Computer Science	34	21.5%
Artificial Intelligence / Machine Learning	14	8.9%
Information Technology	10	6.3%
Finance	5	3.2%
Logistics	5	3.2%
Electrical	5	3.2%
Accounting	5	3.2%
Human Resource Management	5	3.2%
AI&DS	5	3.2%
Commerce	3	1.9%

Exposure to IT Sector

Category	Frequency	Percentage
No prior exposure	66	41.8%
Academic exposure	54	34.2%
Internship / Training	29	18.4%
Work experience	9	5.7%

Familiarity with AI

Category	Frequency	Percentage
Moderate	64	40.5%
High	54	34.2%
Low	24	15.2%
Very High	13	8.2%
Very Low	3	1.9%

Used AI-based tools

Category	Frequency	Percentage
Yes	140	88.6%
No	18	11.4%

Perceived importance of AI-DM

Category	Frequency	Percentage
Very Important	74	46.8%
Extremely Important	46	29.1%
Moderately Important	33	20.9%
Not at all Important	5	3.2%

Source: Survey data. Percentages may not sum to 100 due to rounding.

Reliability

Table 2. Descriptive statistics and reliability of the constructs

Construct	No. of Items	Cronbach's Alpha
AI-Driven Decision-Making	8	0.95
Strategic Performance	8	0.938
Organizational Readiness	7	0.891
Human-AI Collaboration	7	0.913

All four constructs have Cronbach's Alpha scores well above the typical .70 criterion, indicating strong internal consistency. Values above .90 may also indicate that items are highly similar or that respondents answered them in a similar manner, which is examined further in Section 7.8.

Levels of AI-driven decision-making, readiness and collaboration

Table 3. Respondents classified by construct level

Construct	Low	Moderate	High
AI-Driven Decision-Making	8 (5.1%)	30 (19%)	120 (75.9%)
Strategic Performance	4 (2.5%)	25 (15.8%)	129 (81.6%)
Organizational Readiness	0 (0%)	25 (15.8%)	133 (84.2%)
Human-AI Collaboration	0 (0%)	24 (15.2%)	134 (84.8%)

Low < 2.50; Moderate 2.50–3.49; High ≥ 3.50.

The majority of respondents fall in the High level across all four constructs. Organizational readiness (84.2% High) and human–AI collaboration (84.8% High) show the strongest favorable perceptions, followed by strategic performance (81.6% High) and AI-driven decision-making (75.9% High).

Correlation

Table 4. Pearson correlation matrix (N = 158)

Construct	AIDM	SP	OR	HAC
AI-Driven Decision-Making	1.000	0.633	0.566	0.530
Strategic Performance	0.633	1.000	0.669	0.495
Organizational Readiness	0.566	0.669	1.000	0.921
Human–AI Collaboration	0.530	0.495	0.921	1.000

All correlations are significant at p < .001 (two-tailed).

There is a strong, positive correlation among all constructs. Strategic performance correlates most strongly with organizational readiness (r = 0.669), followed by AI-driven decision-making (r = 0.633) and human–AI collaboration (r = 0.495). Notably, organizational readiness and human–AI collaboration are very highly correlated with each other (r = 0.921), which is examined further for multicollinearity in Section 7.7.

Chi-square tests of independence

Table 5. Chi-square test results

Variables Tested	χ^2	df	p-value	Cramer's V	Result
Gender × Have you used AI-based tools	0	1	1.000	0	Not significant
Familiarity with AI × Perceived importance of AI-DM	64.108	12	< .001	0.368	Significant
IT Sector exposure × Perceived importance of AI-DM	50.775	9	< .001	0.327	Significant
Gender × Perceived importance of AI-DM	13.965	3	0.003	0.297	Significant

Familiarity with AI, exposure to the IT sector, and gender are each significantly associated with respondents' perceived importance of AI-driven decision-making (p < .05). No significant association was found between gender and prior use of AI-based tools.

One-way ANOVA

Table 6. One-way ANOVA of study constructs by demographic/professional group

Grouping Variable	Dependent Variable	F-value	p-value	Result
IT Sector Exposure	AI-Driven Decision-Making	11.417	< .001	Significant
IT Sector Exposure	Strategic Performance	4.311	0.006	Significant
IT Sector Exposure	Organizational Readiness	3.579	0.015	Significant
IT Sector Exposure	Human-AI Collaboration	5.677	0.001	Significant
Familiarity with AI	AI-Driven Decision-Making	7.329	< .001	Significant
Familiarity with AI	Strategic Performance	25.058	< .001	Significant
Familiarity with AI	Organizational Readiness	15.782	< .001	Significant
Familiarity with AI	Human-AI Collaboration	13.216	< .001	Significant
Gender	AI-Driven Decision-Making	2.837	0.094	Not significant
Gender	Strategic Performance	0.599	0.440	Not significant

All four constructs differed significantly across levels of IT sector exposure and familiarity with AI ($p < .05$), indicating that greater exposure and familiarity are associated with more favorable perceptions. No significant gender-based differences were found for AI-driven decision-making or strategic performance.

Linear regression

Model 1: simple regression. Strategic performance was regressed on AI-driven decision-making.

Table 7. Simple linear regression (dependent variable: Strategic Performance)

Model Summary	Value
R^2	0.401
Adjusted R^2	0.397
F-statistic	104.531
Sig. (p-value)	< .001
Durbin–Watson	2.27

Predictor	B	Std. Error	t	Sig.
(Constant)	2.034	—	—	< .001
AI-Driven Decision-Making	0.514	0.05	10.224	< .001

AI-driven decision-making is a strong, significant positive predictor of strategic performance. A one-point increase in the AI-driven decision-making score is associated with a 0.514-point increase in the strategic performance score, and AI-driven decision-making alone accounts for 40.1% of its variance ($R^2 = 0.401$, $F(1, 156) = 104.531$, $p < .001$). H1 is supported.

Model 2: multiple regression. Organizational readiness and human–AI collaboration were entered together to predict AI-driven decision-making.

Table 8. Multiple linear regression (dependent variable: AI-Driven Decision-Making)

Model Summary	Value
R^2	0.321
Adjusted R^2	0.312

Model Summary					Value
F-statistic					36.58
Sig. (p-value)					< .001
Durbin–Watson					1.226
Predictor	**B**	**Std. Error**	**t**	**Sig.**	**VIF**
(Constant)	0.31	—	—	0.460	—
Organizational Readiness	0.77	0.256	3.006	0.003	6.63
Human–AI Collaboration	0.088	0.26	0.34	0.734	6.63

The model is significant and accounts for 32.1% of the variance in AI-driven decision-making ($F(2, 155) = 36.58$, $p < .001$). Organizational readiness is a significant positive predictor ($\beta = 0.77$, $p = 0.003$), while human–AI collaboration is not significant once readiness is included ($\beta = 0.088$, $p = 0.734$). H2 is partially supported: diagnostics show VIF values of 6.63 for both predictors, above the common cut-off of 5, indicating substantial collinearity between organizational readiness and human–AI collaboration (consistent with their $r = 0.921$ correlation in Section 7.4). The Durbin–Watson statistic (1.226) shows no strong evidence of autocorrelation. Residuals depart from normality (Shapiro–Wilk $p < .001$ for both models), which is expected with bounded Likert-scale data clustered near the top of the scale; coefficient estimates should therefore be considered approximate.

Robustness and data-quality check

24.7% of respondents (39) answered with the same score on all 30 statements, indicating that some may not have read the statements carefully. These respondents were excluded and the regressions were repeated ($n = 119$). The simple regression remains strong and significant ($R^2 = 0.299$, $\beta = 0.425$, $p < .001$), confirming H1. In the multiple regression, organizational readiness remains a significant predictor ($\beta = 0.799$, $p = 0.007$), while human–AI collaboration remains non-significant ($\beta = -0.013$, $p = 0.965$). The core findings are therefore not an artefact of inattentive responding.

Summary of Findings

- AI-driven decision-making (M = 3.80), strategic performance (M = 3.99), organizational readiness (M = 4.07), and human–AI collaboration (M = 4.03) were all rated High on average.
- Familiarity with AI, IT sector exposure, and gender are each significantly associated with perceived importance of AI-driven decision-making; gender is not associated with prior AI tool use.
- All four constructs differ significantly by IT sector exposure and AI familiarity; no significant gender differences were found for AI-driven decision-making or strategic performance.
- AI-driven decision-making is a significant predictor of strategic performance, accounting for 40.1% of its variance ($\beta = 0.514$). H1 is supported.
- Organizational readiness and human–AI collaboration jointly account for 32.1% of the variance in AI-driven decision-making, but only organizational readiness is independently significant ($\beta = 0.77$), due to high collinearity between the two predictors ($r = 0.921$).
- The relationships hold after removing respondents who gave identical answers throughout the questionnaire, indicating the findings are not solely an artefact of inattentive responding.

Discussion

This finding corroborates prior literature indicating that AI-driven decision-making positively influences strategic performance (Saha et al., 2024; Zhu, 2025). The very high correlation between organizational readiness and human–AI collaboration ($r = 0.921$) suggests that, in this sample, the two factors may be capturing closely related or overlapping underlying perceptions — respondents who view their organization as technologically and managerially ready also tend to report strong human–AI collaboration, and vice versa. This is broadly consistent with Attar (2025) and Barnea (2020), who frame human–AI collaboration as complementary to, rather than independent of, organizational capability.

The lack of significant gender differences in AI-driven decision-making and strategic performance suggests fairly consistent perceptions across respondents in this sample, while the significant role of IT sector exposure and AI familiarity indicates that direct exposure meaningfully shapes how respondents perceive AI's strategic value — consistent with Priyanka et al. (2025), who note that workforce readiness and familiarity remain key challenges for realizing AI's benefits in IT settings.

Suggestions and Implications

- IT organizations should prioritize investment in technological infrastructure, employee AI skills training, and leadership support to strengthen organizational readiness, which this study identifies as the stronger, more direct enabler of AI-driven decision-making effectiveness.
- Organizations should design structured processes for integrating AI-generated insights with human judgment, rather than treating human–AI collaboration as incidental to readiness.
- Given that greater IT sector exposure and AI familiarity are linked to more favorable perceptions, onboarding and training programs should build direct, hands-on exposure to AI tools early.
- Future research should extend this study using probability sampling among working IT professionals and longitudinal designs to disentangle the overlapping effects of readiness and collaboration.

Limitations and Future Research

There are some limitations of the study. The sample was drawn using convenience sampling and is predominantly composed of undergraduate students with varying levels of direct IT sector work experience, which may limit generalizability to senior IT decision-makers. Data were self-reported and cross-sectional, capturing perceptions at a single point in time, which limits causal interpretation. The very high correlation between organizational readiness and human–AI collaboration (multicollinearity, VIF ≈ 6.63) makes it difficult to separate their independent contributions in this sample. Approximately 24.7% of respondents gave identical ratings across all statements, suggesting some inattentive responding, though the core findings held after excluding these cases. The study focused on two influencing factors; other variables such as data governance and organizational culture were not examined.

Future studies should employ a larger, random, multi-sector sample of working IT professionals, incorporate an objective measure of AI readiness rather than self-report alone, and consider structural equation modelling or other techniques capable of disentangling closely related constructs such as organizational readiness and human–AI collaboration.

Conclusion

This study examined the impact of AI-driven decision-making on strategic performance in the IT sector, with attention to organizational readiness and human–AI collaboration, using data from 158 respondents. AI-driven decision-making, strategic performance, organizational readiness, and human–AI collaboration were all rated high, with strong positive correlations among all four constructs. AI-driven decision-making accounted for a substantial share of the variance in strategic performance, while organizational readiness emerged as the stronger, more direct enabler of AI-driven decision-making effectiveness compared to human–AI collaboration, whose independent effect could not be clearly separated from readiness in this sample. Considering the sample size, convenience sampling, and self-reported measures, with the limitations noted above, these results should be considered preliminary and further validated in a larger, more representative sample of IT sector professionals.

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