EXPLORING THE PATH OF HUMAN-AI SYMBIOTIC COOPERATION IN EDUCATIONAL MANAGEMENT

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Abstract - Amid China's Education Modernization 2035 agenda, this research develops and tests a collaborative framework in which human expertise and artificial intelligence jointly inform administrative decision-making in both K–12 and higher-education settings. Grounded in the Technology Acceptance Model and classical symbiosis theory, the study employs a two-phase mixed-methods design, prioritizing qualitative insight. In the first stage, we held semi-structured interviews with thirty administrators (fifteen from primary/secondary schools and fifteen from universities) to explore their perceptions of AI-augmented workflows, uncover anticipated advantages and obstacles, and examine contextual factors affecting integration. A thematic analysis of NVivo-coded transcripts revealed three principal dimensions shaping effective collaboration: technological infrastructure readiness, cultural receptivity among practitioners, and the rigor of data-privacy safeguards.Building on these findings, the second phase comprised a survey of four hundred educational leaders. The instrument measured infrastructure maturity, stakeholder trust, perceived usefulness, perceived ease of use, and data-security confidence. Using SPSS 28, we conducted exploratory factor analysis, multiple regression, and structural path modeling to assess how these dimensions influence decision latency, predictive accuracy, and transparency. Results indicate that AI tools—particularly those for student-assessment analytics, personalized learning recommendations, workflow streamlining, and strategic planning.Further moderation analyses show that institutions with robust infrastructure and stringent data-governance practices experience the greatest improvements in decision quality, while the cultural acceptance of AI mediates the translation of technical capacity into day-to-day use. Notably, K–12 respondents emphasized intuitive interfaces and targeted professional development, whereas university participants highlighted cross-departmental data interoperability and advanced analytics.Based on these insights, we recommend: (1) fostering interoperable, campus-wide information ecosystems; (2) implementing tiered, role-specific training and change-management initiatives to cultivate trust; and (3) enhancing data-governance frameworks to secure ethical, transparent, and sustainable AI deployment.Based on these insights, we recommend:Accelerating the development of interoperable, campus-wide and inter-institutional information infrastructures to support AI deployment;Delivering tiered training and culture-building initiatives tailored to administrative roles, thereby fostering trust and uptake;Strengthening educational data-governance frameworks and privacy protocols to ensure transparent, sustainable, and equitable AI-enabled management.This research contributes a theoretically informed and practically applicable model for balancing AI-driven analytics with human-centered judgment, offering policy-makers and educational leaders a clear roadmap for responsible, high-impact AI integration in educational administration.

Keywords - Educational administration; AI-assisted decision-making; human–AI symbiosis; Technology Acceptance Model; decision-making efficiency.