

Attitude Toward AI Use, Extent of AI Tool Utilization, and Administrative Efficiency among School Heads in SAMARICA District

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Publication history: Received: March 18, 2026; Revised: March 30, 2026; Accepted: April 3, 2026

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Abstract

This study examined the relationships among elementary school heads' attitudes toward artificial intelligence (AI), their extent of AI utilization, and their administrative efficiency in the SAMARICA District of Occidental Mindoro. Anchored on the Technology Acceptance Model, Task–Technology Fit theory, and Diffusion of Innovations theory, the research employed a descriptive correlational design to analyze existing conditions and relationships among variables. Data were collected from 98 public elementary school heads identified as AI users through a structured survey instrument with high internal consistency. Descriptive and inferential statistical techniques, including correlation and regression analysis, were used to assess levels of attitudes, utilization, and efficiency, as well as the mediating role of utilization. Findings revealed that school heads demonstrated positive attitudes toward AI, characterized by high levels of interest, trust, and perceived usefulness, alongside moderate fear. The extent of AI utilization was high, particularly in terms of frequency, integration, and confidence, although functional breadth remained moderate. Administrative efficiency was also high, especially in task management and communication, with moderate levels in decision-making and resource utilization. Significant positive relationships were found among attitudes, utilization, and efficiency, with utilization emerging as the strongest predictor. Furthermore, AI utilization fully mediated the relationship between attitudes and administrative efficiency, indicating that positive attitudes enhance performance only when translated into actual and consistent AI use. The study concludes that effective AI integration in school leadership depends on both positive perceptions and practical application, and it recommends expanded training, institutional support, and broader research coverage. The findings support SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), and SDG 9 (Industry, Innovation and Infrastructure) by highlighting the role of AI in improving educational leadership and productivity. In terms of sustainability, the study contributes to institutional and technological sustainability by promoting efficient, data-driven school governance and strengthening capacity for digital transformation in resource-constrained educational settings.

Keywords: Administrative Efficiency, Artificial Intelligence, Attitudes Toward Ai, School Heads, Technology Utilization

1. Introduction

Artificial Intelligence (AI) has emerged as a transformative force in education, reshaping administrative functions through automation, data-driven decision-making, and workflow optimization. Globally and regionally, educational systems are increasingly adopting AI technologies to improve efficiency and leadership practices. However, disparities in access, infrastructure, and training continue to limit effective implementation, particularly in rural contexts. This study examines the relationships among school heads' attitudes toward AI, their extent of utilization of AI tools, and their administrative efficiency within the SAMARICA District of Occidental Mindoro.

1.1 Background of the Study

Artificial Intelligence (AI) has become a defining technology of the 21st century, influencing how educational institutions manage both instructional and administrative processes. Its application in education extends to automating routine tasks, organizing information, and supporting decision-making. According to UNESCO (2023), more than 60% of education ministries worldwide have implemented AI-related initiatives aimed at modernizing administrative systems. In Southeast Asia, over 70% of schools have adopted digital tools to support administrative work, highlighting the growing expectation for school leaders to assume digital leadership roles (ASEAN ICT Masterplan 2020). In the Philippines, the Department of Education has initiated AI-driven reforms, including the establishment of the Education Center for AI Research (E-CAIR) in 2025, which supports administrative processes such as automated reporting and predictive analytics. Despite these efforts, AI adoption remains uneven, particularly in rural and semi-urban areas where infrastructure and training are limited. In the SAMARICA area of Occidental Mindoro, school heads face challenges such as distance, limited professional development, and resource constraints. Some have independently used AI tools such as ChatGPT, Microsoft Copilot, Gemini AI, Canva, and Grammarly for administrative tasks, yet no formal training has been provided. Consequently, there is limited evidence on how AI influences administrative efficiency in this context.

1.2 Themes and Insights from Related Literature on School Heads' AI Attitudes, Utilization, and Administrative Efficiency

Literature indicates that attitudes toward AI are shaped by perceived usefulness, trust, and readiness. AI integration enhances administrative efficiency by automating tasks such as admissions and record management, fostering positive attitudes (Khairullah et al., 2025; Fonseca, 2025). However, concerns about over-reliance, ethical risks, and transparency persist (Willie, 2025; Bankins et al., 2023). Positive attitudes are influenced by self-efficacy and competency (Naiseh et al., 2025), while global findings show a gap between widespread AI use and limited trust (Gillespie and Lockey, 2025). Interest in AI is driven by curiosity, exposure, and perceived relevance, with studies showing that generative AI tools increase engagement among educators (Garzón et al., 2025; McKinsey & Company, 2025; Pew Research Center, 2025; Zao-Sanders, 2025; Granström and Oppi, 2025). Trust remains a critical factor influenced by transparency, governance, and reliability (McGrath et al., 2025; Deloitte and Edelman, 2025; Orbán and Stefkovics, 2025), while fear is associated with concerns about job displacement, ethical implications, and loss of autonomy (Wang et al., 2025; Dong et al., 2024; Frenkenberg and Hochman, 2025; Rozen, 2025; Liu, 2025). Perceived usefulness strongly predicts adoption and positive attitudes, especially when AI enhances efficiency and task relevance (Granström and Oppi, 2025; Phua et al., 2025; Maberah et al., 2025; Revillod, 2025; Sustaningrum and Haldaka, 2025). The extent of AI utilization varies in terms of frequency, functional breadth, integration level, and user confidence. Although AI adoption is increasing, many organizations remain in early stages of integration, with challenges related to governance and readiness (Fonseca, 2025; Babšek et al., 2025; McKinsey & Company, 2025; Shorey, 2025). Effective utilization depends on training, policy support, and institutional capacity (Joshi, 2025; Göçen et al., 2025; RAND, 2024; U.S. Department of Education, 2025; Vatamanu and Tofan, 2025; Adepoju, 2025). Administrative efficiency is a multidimensional construct involving leadership competencies, resource management, and technological integration (Leonor and Rodriguez, 2025; Velez, 2025; Ambon et al., 2025; Arambala, 2025). AI enhances efficiency in task management, decision-making, resource utilization, and communication (Adams and Thompson, 2025; Deep et al., 2024; Connolly, 2025; Ajuwon et al., 2024). Studies further show strong relationships among variables, where positive attitudes increase utilization, utilization improves efficiency, and attitudes directly influence performance outcomes (Sustaningrum and Haldaka, 2025; Đerić et al., 2025; Fonseca, 2025; Kumar, 2024; Göçen et al., 2025; Naiseh et al., 2025; Gillespie and Lockey, 2025). These relationships form a reinforcing cycle that sustains AI adoption and effectiveness (Berkovich, 2025; Wang et al., 2025).

1.3 Local, National, and Global Context of AI Integration in School Administration

Globally, AI adoption in education is expanding, supported by national strategies and digital transformation initiatives (UNESCO, 2023). In Southeast Asia, countries are integrating AI into school administration to improve communication, scheduling, and resource management (ASEAN ICT Masterplan 2020). Nationally, the Philippines has implemented reforms such as E-CAIR to promote AI use in education. However, disparities in access and training persist between urban and rural areas. Locally, school heads in the SAMARICA District experience challenges such as limited infrastructure and lack of formal training, resulting in inconsistent and informal AI utilization practices.

1.4 Theoretical or Conceptual Basis on AI Attitudes, Utilization, and Administrative Efficiency

This study is grounded in the Technology Acceptance Model (TAM) (Davis, 1989), which explains that perceived usefulness and ease of use shape attitudes and influence technology adoption. It is further supported by the Task Technology Fit (TTF) theory (Goodhue & Thompson, 1995), which posits that technology enhances performance when aligned with task requirements. Additionally, the Diffusion of Innovations Theory (Rogers, 2003) explains how observed benefits reinforce continued adoption. These frameworks collectively support the relationship among attitudes toward AI, extent of utilization, and administrative efficiency, with utilization acting as a mediating variable.

1.5 Research Gaps and Rationale on AI Use among School Heads in Rural Contexts

Despite increasing research on AI in education, there remains a lack of studies examining how school heads' attitudes, utilization of AI tools, and administrative efficiency are interconnected, particularly in rural contexts. Existing studies often focus on urban settings or general outcomes, leaving limited evidence on leadership practices in resource-constrained environments. In the SAMARICA District, there is minimal documentation on AI adoption and its impact on administrative efficiency. This study addresses these gaps by providing empirical evidence on the relationships among these variables within a rural Philippine context.

1.6 Alignment with Relevant Sustainable Development Goals (SDGs)

This study aligns with SDG 4 – Quality Education by improving school leadership and administrative systems through AI integration. It also supports SDG 8 – Decent Work and Economic Growth by enhancing productivity and efficiency among school leaders, and SDG 9 – Industry, Innovation and Infrastructure by promoting the adoption of innovative technologies in education. These alignments highlight the role of AI in strengthening educational systems and fostering inclusive digital transformation.

1.7 Importance of the Study to Multidisciplinary Sustainability

This study contributes to educational sustainability by enhancing governance and leadership effectiveness in schools. It supports technological sustainability through responsible AI integration and capacity building, and socio-economic sustainability by improving efficiency in resource-constrained settings. Additionally, it contributes to policy and institutional sustainability by informing decision-making, training programs, and governance frameworks. Ultimately, the study strengthens community sustainability by improving school systems that directly impact teaching quality and learner outcomes.

2. Material and methods

2.1 Research Design

This study employed a descriptive correlational research design. The descriptive component was used to determine and present the current conditions of school heads' attitudes toward AI use, their extent of AI utilization, and their level of administrative efficiency within the SAMARICA district. These variables were summarized using weighted means, standard deviations, and categorical interpretations to provide a clear profile of AI perception and practice. The correlational component examined the relationships among these variables, specifically whether more positive attitudes toward AI were associated with higher levels of utilization and whether greater utilization corresponded to higher administrative efficiency. It also tested the mediating role of AI utilization between attitudes and efficiency. This design was appropriate as it allowed the analysis of existing conditions and relationships without manipulating variables, thereby reflecting real-world administrative practices.

2.2 Locale of the Study

The study was conducted in the Schools Division of Occidental Mindoro in the MIMAROPA region of the Philippines, specifically in the municipalities of San Jose, Magsaysay, Rizal, and Calintaan, collectively referred to as SAMARICA. These areas represent a combination of urban and rural school environments, providing a diverse context for examining school leadership practices. The selected locale offered both contextual variation and accessibility, enabling efficient data collection and meaningful engagement with respondents. The geographic representation of the study area illustrates the spatial distribution of the four municipalities within the province, emphasizing the coverage of the research setting and its relevance to understanding administrative practices across varied school contexts.

2.3 Respondents of the Study

The respondents of the study consisted of public elementary school heads, including principals, head teachers, teachers-in-charge, and officers-in-charge officially designated by authorized appointing officials. These respondents were drawn from the SAMARICA districts of the Schools Division of Occidental Mindoro and represented school leaders actively engaged in administrative functions. Only those school heads identified as users of AI tools were included in the study, based on a preliminary screening process conducted by the researcher. This ensured that the data collected were relevant to the investigation of AI-related practices in school administration.

2.4 Sample and Sampling Procedure

The study population consisted of 130 public elementary school heads identified as AI users across the SAMARICA districts. From this population, a sample of 98 respondents was selected using simple random sampling, ensuring that only qualified participants were included. The sample was proportionally distributed across the four municipalities to maintain balanced representation. The distribution showed that San Jose contributed the largest number of respondents, followed by Calintaan, Magsaysay, and Rizal, reflecting the varying number of school heads in each district. This proportional allocation ensured that each municipality was adequately represented in the sample, thereby supporting the validity of the findings across different school contexts.

2.5 Research Instrument

The study utilized a structured survey questionnaire designed to measure three variables: attitudes toward AI use, extent of utilization of AI tools, and administrative efficiency. The instrument consisted of adapted items from previously validated sources and was contextualized to reflect the roles of school heads. Expert validation was conducted to ensure clarity and relevance, and a pilot test confirmed internal consistency with a Cronbach's Alpha of .979. The attitudes toward AI variable included indicators such as interest, trust, fear, and perceived usefulness, adapted from instruments including the Artificial Intelligence Attitude Scale (AIAS) by Aktay, Gök, and Yıldırım (2024), the Human and AI Trust instrument by Larasati, De Liddo, and Motta (2025), the General Attitudes toward Artificial Intelligence Scale (GAAIS) by Schepman and Rodway (2023), and Grassini's (2023) scale. The extent of utilization variable covered frequency of use, functional breadth, integration level, and confidence in use, adapted from Capinding (2024), Kılınç (2024), and Keller's (1987) ARCS Model. Administrative efficiency included task management, decision making, resource utilization, and communication effectiveness, adapted from Rao and Azmi, Sanz de Acedo Lizarraga et al. (2009), Willis et al. (2019), and Viggiano (1990). These components collectively ensured a comprehensive assessment of the study variables.

2.6 Data Gathering Procedure

Data collection followed an organized process beginning with securing permission from the Schools Division Office and district supervisors. A preliminary screening identified school heads who were actual users of AI tools, ensuring relevance of the respondents. Survey questionnaires were distributed either personally or through Google Forms based on respondent availability. Participants were informed about the purpose of the study, voluntary participation, and confidentiality of their responses. Completed questionnaires were checked for completeness, encoded, and prepared for analysis. Items under the fear indicator were reverse coded prior to statistical processing.

2.7 Data Analysis Techniques

Both descriptive and inferential statistics were used to analyze the data. Descriptive measures such as weighted means were applied to describe attitudes, utilization, and administrative efficiency. Reliability analysis using Cronbach's Alpha ensured consistency of the instrument. Inferential analysis included Pearson correlation to determine relationships among variables, and regression analysis to test the mediating role of AI utilization between attitudes and administrative efficiency. These methods enabled the study to assess both the strength and direction of relationships and the role of utilization in enhancing efficiency outcomes.

2.8 Ethical Considerations

The study adhered to ethical standards by ensuring voluntary participation, informed consent, and confidentiality. Respondents were not required to disclose personal identifiers, and all data were reported in aggregate form. The research complied with Republic Act No. 10173, or the Data Privacy Act of 2012, ensuring that all collected information was handled with transparency, legitimate purpose, and proportionality. Participants were assured that their responses would be used solely for academic purposes and would not affect their professional standing.

3. Results and Discussion

3.1 School Heads' Attitudes Toward AI Use

3.1.1 Interest in AI Tools

The findings show that school heads have a high level of interest in AI tools, with an overall mean of 3.72, indicating strong engagement in using AI for report preparation, communication, decision-making, and creative tasks. Respondents also expressed enthusiasm for staying updated on AI technologies, reflecting openness to innovation and willingness to integrate AI into administrative work. This high level of interest suggests readiness to adopt AI in leadership practices, consistent with technology adoption theory where curiosity and perceived relevance drive engagement (Venkatesh et al., 2012). The findings align with studies showing that interest in generative AI is linked to its ability to simplify tasks and improve efficiency (Garzon et al., 2025; McKinsey, 2025). However, slightly lower engagement in complex applications indicates that interest is still evolving toward more strategic use (Zao Sanders, 2025).

3.1.2 Trust in AI Tools

The results indicate a high level of trust in AI tools, with a mean of 3.87, suggesting that school heads perceive AI as reliable, functional, and effective in supporting administrative processes. Respondents expressed confidence in AI's ability to process data, generate outputs, and assist in decision-making tasks. This finding reflects that trust serves as a key driver of AI adoption, as users are more likely to integrate tools they perceive as dependable (McGrath et al., 2025). It is consistent with findings that higher trust increases willingness to use AI in decision-support roles (Gillespie and Lockey, 2025). However, the cautious nature of trust indicates continued reliance on human judgment, aligning with the importance of transparency and control in AI adoption (Deloitte & Edelman, 2025).

3.1.3 Fear of AI Tools

The results reveal a moderate level of fear toward AI tools, with a mean of 3.34, indicating that school heads have concerns about errors, reduced human judgment, and possible job displacement. Although all indicators were rated moderate, the findings suggest that fear does not prevent adoption but reflects cautious engagement. This moderate fear aligns with global findings that AI-related anxiety stems from perceived risks to autonomy and professional roles (Wang et al., 2025; Dong et al., 2024). It reflects anticipatory concerns rather than resistance, consistent with Frenkenberg and Hochman (2025). While fear may limit deeper exploration, it also promotes responsible and ethical AI use, emphasizing the need for training and governance support (Wang et al., 2025).

3.1.4 Perceived Usefulness of AI Tools

The findings show a high level of perceived usefulness of AI tools, with a mean of 3.94, indicating that school heads view AI as effective in improving efficiency, leadership performance, and administrative processes. Respondents recognized AI as a valuable resource for modernizing school management. This strong perception supports the Technology Acceptance Model, where usefulness is a primary determinant of adoption (Davis, 1989). The results align with studies showing that

perceived usefulness drives readiness and positive attitudes toward AI (Granström and Oppi, 2025; Maberah et al., 2025). The findings also suggest a balanced perspective where AI is seen as supportive rather than replacing human judgment (Revillod, 2025).

3.1.5 Overall Attitude Toward AI

The overall results indicate a positive attitude toward AI use among school heads, with a grand mean of 3.72, characterized by high interest, trust, and perceived usefulness, alongside moderate fear. This suggests that school heads exhibit a balanced yet forward-looking perspective toward AI adoption. According to the Technology Acceptance Model, such positive attitudes increase the likelihood of sustained use (Davis, 1989). The combination of strong trust and usefulness with moderate fear reflects a cautious but progressive approach to digital transformation in school leadership.

3.2 Extent of Utilization of AI Tools

3.2.1 Frequency of AI Tool Use

The findings show a high frequency of AI use, with a mean of 3.72, indicating that school heads regularly use AI for documentation, planning, reporting, data analysis, and instructional support tasks. This frequent use reflects the normalization of AI in administrative workflows, consistent with global trends showing widespread AI use in organizations (RAND, 2024; McKinsey, 2025). It suggests that AI supports efficiency by reducing workload and improving task execution (Adams and Thompson, 2025). However, slightly lower use in instructional leadership tasks indicates cautious adoption in higher-stakes areas (Shorey, 2025).

3.2.2 Functional Breadth of AI Use

The results indicate a moderate level of functional breadth, with a mean of 3.29, showing that AI is mainly used for specific tasks such as report writing, scheduling, and documentation rather than across all administrative functions. This suggests that AI adoption remains task-specific, consistent with studies indicating that early AI use focuses on routine and repetitive functions (Ajuwon et al., 2024; Dai et al., 2024). Limited breadth may result from insufficient training or awareness of advanced features (Ong and Gojayevea, 2025), indicating the need to expand AI use into more strategic areas.

3.2.3 Integration Level of AI Tools

The findings show a high level of AI integration, with a mean of 3.73, indicating that AI tools are embedded in administrative processes such as planning, documentation, and communication while still requiring human oversight. This reflects effective integration where AI complements rather than replaces human decision-making, consistent with findings on digital leadership practices (Göçen et al., 2025; RAND, 2024). However, slightly uneven integration across functions suggests the need for stronger institutional support (Joshi, 2025).

3.2.4 Confidence in AI Use

The results indicate a high level of confidence in AI use, with a mean of 3.79, showing that school heads feel capable of learning, mastering, and applying AI tools in their work. This aligns with findings that confidence enhances adoption and sustained use (Vatamanu and Tofan, 2025; Adepoju, 2025). While confidence in basic tasks is strong, lower confidence in complex applications suggests a need for further training (Robert Half, 2025).

3.2.5 Overall Utilization of AI Tools

The overall extent of AI utilization is high, with a mean of 3.63, characterized by frequent use, strong integration, and high confidence, but moderate functional breadth. This indicates that AI is already embedded in administrative routines but has not yet reached full potential across all functions. The pattern reflects growing digital leadership, with opportunities to expand AI use through training and institutional support.

3.3 Administrative Efficiency

3.3.1 Task Management

The results show a high level of efficiency in task management, with a mean of 3.64, indicating that school heads effectively use AI for planning, prioritizing, scheduling, and monitoring tasks. This suggests that AI enhances workflow organization and reduces administrative burden, consistent with findings on AI-supported efficiency (Adams and Thompson, 2025; Göçen et al., 2025). Improved task management reflects strong alignment between AI tools and administrative needs (Deep et al., 2024).

3.3.2 Decision Making

The findings reveal a moderate level of efficiency in decision-making, with a mean of 3.40, indicating that AI is used as a support tool but not fully relied upon for decision processes. This aligns with studies showing that leaders use AI cautiously in high-stakes decisions (Zhang et al., 2020; Bucinca et al., 2021). The results reflect a balanced approach where AI supports but does not replace human judgment (Yang et al., 2019).

3.3.3 Resource Utilization

The results show a moderate level of efficiency in resource utilization, with a mean of 3.35, indicating that AI is used for budgeting, staffing, and resource management but not extensively. This suggests partial integration of AI in resource management, consistent with findings that AI use in financial and HR systems is still developing (Connolly, 2025; Ajuwon et al., 2024). Limited use may be influenced by contextual constraints and system readiness (Deep et al., 2024).

3.3.4 Communication Effectiveness

The findings indicate a high level of communication effectiveness, with a mean of 3.67, showing that AI supports clear, timely, and structured communication among stakeholders. This supports literature highlighting the role of digital tools in enhancing communication and collaboration (Ambon et al., 2025; Arambala, 2025). The moderate rating in responsiveness suggests the need to balance AI use with interpersonal communication.

3.3.5 Overall Administrative Efficiency

The overall administrative efficiency is high, with a mean of 3.51, characterized by strong performance in task management and communication, and moderate performance in decision-making and resource utilization. This indicates that AI contributes significantly to routine administrative efficiency, while strategic functions require further development. The results highlight the need for advanced AI training to enhance higher-order leadership functions.

3.4 Relationship Among Attitude, Utilization, and Administrative Efficiency

The results show strong and significant positive relationships among attitude toward AI, extent of utilization, and administrative efficiency. Attitude is moderately correlated with utilization ($r = .682, p < .01$) and efficiency ($r = .606, p < .01$), while utilization has a strong correlation with efficiency ($r = .814, p < .01$). These findings confirm that positive attitudes increase AI use, and utilization directly improves efficiency. This aligns with the Technology Acceptance Model and Task-Technology Fit theory, where attitudes influence behavior and performance outcomes (Davis, 1989; Sustaningrum & Haldaka, 2025; Fonseca, 2025; Kumar, 2024). The results highlight utilization as the strongest predictor of efficiency.

3.5 Mediation of AI Utilization

The results show that AI utilization fully mediates the relationship between attitudes and administrative efficiency. Attitudes significantly predict utilization ($\beta = .682, p = .000$) and efficiency ($\beta = .606, p = .000$), while utilization significantly predicts efficiency ($\beta = .749, p = .000$). However, when utilization is included, the direct effect of attitudes becomes non-significant ($\beta = .095, p = .243$). This indicates that attitudes alone do not improve efficiency unless translated into actual AI use. The findings align with the Technology Acceptance Model and Theory of Planned Behavior, where behavior mediates the effect of attitudes on outcomes (Davis, 1989; Ajzen, 1991). It also supports research emphasizing that performance improvements occur through actual technology use (Berkovich, 2025; McGrath et al., 2025). Overall, the results confirm that AI utilization is the key mechanism linking positive attitudes to improved administrative efficiency, reinforcing the importance of practical application, training, and institutional support in maximizing AI's benefits.

4. Conclusion & Recommendations

The study concludes that elementary school heads in the SAMARICA district generally demonstrate a positive attitude toward AI, characterized by high levels of interest, trust, and perceived usefulness, alongside moderate fear. There is a high extent of AI utilization in administrative functions, reflected in frequent use, strong integration, and high confidence, although functional breadth remains moderate. School heads also exhibit a high level of administrative efficiency, particularly in task management and communication, with moderate efficiency in decision making and resource utilization. The findings further reveal strong positive relationships among attitudes toward AI, extent of utilization, and administrative efficiency, indicating that positive attitudes enhance utilization and that increased utilization improves performance. Moreover, the extent of AI utilization fully mediates the relationship between attitudes and administrative efficiency, demonstrating that improvements in efficiency occur only when positive attitudes are translated into actual and consistent use of AI tools.

The study recommends expanding future research to include secondary school heads, district supervisors, and teachers to enhance the generalizability and scope of findings. It also suggests conducting school-based training focused on commonly used AI tools to support both administrative and instructional functions. School systems are encouraged to establish institutional mechanisms that promote consistent AI use by integrating these tools into standard procedures and reporting processes. Additionally, structured professional development programs should be implemented to equip school heads with essential AI competencies, including proper usage, verification of outputs, ethical considerations, and data privacy compliance. Future studies are also recommended to explore additional variables and identify AI tools that provide the most practical and meaningful support for school leadership functions.

The study is limited to elementary school heads within the SAMARICA district, which restricts the generalizability of the findings to other educational levels and contexts. The focus on school heads excludes other stakeholders such as teachers and supervisors, whose roles may provide additional perspectives on AI use. Furthermore, respondents were self-taught in using AI tools, which may have influenced the depth and consistency of their utilization. The study also concentrated on selected variables related to attitudes, utilization, and administrative efficiency, which may not fully capture other factors influencing AI integration in school leadership.

Compliance with ethical standards

The authors affirm that the study adhered to institutional ethical standards, with voluntary participation, informed consent, and the assurance of confidentiality through the exclusion of identifiable information and aggregate data reporting using non-invasive methods. The authors declare no conflict of interest and confirm that no external funding was received, while acknowledging the participation of school heads from the Schools Division of Occidental Mindoro. The authors further assume full responsibility for the integrity and originality of the work in accordance with academic and publication standards.

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