ARTIFICIAL INTELLIGENCE IN EDUCATION: A COMPARATIVE ANALYSIS OF PEDAGOGICAL AND ADMINISTRATIVE PRACTICES IN VIETNAM AND INDIA

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INFORMATION	ABSTRACT
   Keywords: 	*In the context of globalisation and digital transformation, artificial intelligence (AI) has become a strategic driver of educational reform, particularly in developing countries like Vietnam and India. This study compares the adoption of AI in both nations, examining pedagogical innovation, administrative restructuring and ethical considerations. A mixed-methods approach combines qualitative and quantitative analysis, drawing on national policy documents, peer-reviewed research, expert interviews and sectoral reports. The sample includes public and private institutions in urban and peri-urban areas, selected for their level of AI integration and involvement in digital education initiatives. The findings reveal divergent approaches: Vietnam emphasises localised solutions and integrated platforms, such as ChatGPT, Canva AI, Azota and the internationally recognised CATI-VLM system. India pursues large-scale, nationally coordinated strategies with platforms like BYJU's and Embibe, supported by international collaborations such as the ASEAN-India Research Training Fellowship. Both countries face ongoing challenges, including infrastructure gaps, limited digital literacy among educators and the lack of comprehensive ethical and legal frameworks for AI governance. The study concludes that AI should serve as a tool to augment rather than replace teachers. Effective integration requires aligning technological infrastructure with human-centred policies, interdisciplinary teacher training, transparent regulations and sustained international cooperation to foster an inclusive and ethical AI ecosystem in education.*

1. Introduction

In an era of globalisation and rapid digital transformation, artificial intelligence has emerged as a strategic catalyst for educational innovation. In developing countries such as Vietnam and India, the growing demand for personalised learning, a shortage of highly skilled technology professionals and persistent digital divides have made AI adoption an urgent priority for education reform. AI not only enhances teaching and learning through adaptive platforms, virtual assistants and automated assessment tools but also strengthens educational governance through big data analytics and intelligent management systems.

The capacity of AI to foster adaptive and intelligent learning environments, wherein learner behaviour is algorithmically processed to design personalised instructional content, was articulated by Luckin et al. (2016). Echoing this perspective, Gnanaprakasam et al. (2024) notes that AI-driven automated grading systems significantly enhance feedback provision and operational efficiency in education. As Jeyakumaran et al. (2025) observe, these innovations are catalysed by national initiatives like digital India and digital education infrastructures, including DIKSHA, which collectively propel the systemic digitisation of education. According to Thu (2023) and Utami et al. (2024), AI tools such as ChatGPT, Canva AI and Azota assist teachers in content creation, test design and competency assessment with increased flexibility and operational efficiency.

Holmes et al. (2019) highlight its diverse applications from intelligent tutoring systems and agile assessment frameworks to big data analytics that inform institutional governance and decision-making. Academic dashboards and education-specific chatbots can process learning data to predict academic outcomes and support administrative strategy formulation, as demonstrated by Ramaswami et al. (2023) and Sajja et al. (2023). Within Vietnam, Andre et al. (2018, 2021) document the emergence of intelligent education management systems utilising AI to identify students at risk of academic failure and design tailored intervention strategies based on learning analytics derived from Learning Management Systems (LMS). Floridi et al. (2018) address concerns surrounding data privacy, ownership of AI-generated content and the imperative for algorithmic transparency. According to Felice et al. (2025), AI should be deployed in ways that support educators and students while upholding values of equity, transparency and human dignity within educational ecosystems. However, as Vuong et al. (2024) emphasise, AI cannot entirely supplant the role of educators, particularly in adaptive instructional strategies and the cultivation of affective bonds with learners.

While prior studies have extensively explored artificial intelligence in education, most focus narrowly on technological development, adaptive learning platforms, or automated assessment tools, often within a single national context. Research has also examined national policy frameworks or specific edtech initiatives but there remains limited scholarship that systematically compares AI adoption in both pedagogical and administrative dimensions, especially across developing countries. Moreover, existing literature rarely integrates cultural, economic and governance perspectives to explain national differences in digital transformation. This study addresses these gaps by providing a multidimensional, cross-national comparative analysis of Vietnam and India, offering fresh insights into how AI reshapes both teaching practices and institutional governance. To guide the analytical trajectory, the study is anchored around four core research enquiries:

1. How is AI transforming traditional pedagogical methodologies in Vietnam and India?

2. What administrative innovations have emerged through AI integration in educational governance?

3. Which AI-based tools have demonstrated superior efficacy in enabling personalised learning?

4. What structural and operational challenges impede the comprehensive implementation of AI in education management and what viable solutions can be proposed?

2. Methodology

This study employs a comparative mixed-methods design, synthesising qualitative and quantitative techniques to achieve a comprehensive and systematic evaluation of the integration of artificial intelligence into teaching, learning and educational governance in Vietnam and India.

2.1. Research design

To elucidate the structural transformations unfolding within academic environments under the influence of AI, this study adopts an interdisciplinary approach, integrating educational technology, public policy and digital anthropology. The mixed-methods framework was chosen not only to quantify the technological efficacy of AI but also to explore in depth the cognitive orientations and behavioural dynamics of stakeholders within AI-infused educational ecosystems.

2.2. Data sources and collection

The research draws upon four primary categories of data:

National policy documents issued by educational authorities are used to analyse strategic directives, regulatory frameworks and financial commitments regarding the deployment of AI in education.

Peer-reviewed academic articles and representative case studies, providing empirical insight into grassroots-level implementation of AI within culturally and infrastructurally specific contexts. Scholarly dialogues and expert roundtables involving educators, IT specialists, administrators, students and pupils to investigate experiential dimensions, professional expectations and institutional readiness for AI adoption.

Sectoral reports and recently released datasets about digital capabilities, infrastructure investments and AI workforce development roadmaps within the education sector.

Survey Questionnaire: A structured questionnaire consisting of 25 items was administered to 100 participants, comprising 40 teachers, 30 students and 30 administrators. A purposive and stratified sampling strategy was employed, where educational institutions were stratified by type (public/private) and geographic location (urban/peri-urban). Participants were then purposively selected to ensure representativeness across these categories. The survey was conducted entirely online between February and June 2025, achieving a response rate of 92%.

Semi-Structured interviews: To complement the quantitative data, 20 in-depth interviews were conducted with teachers, administrators, and policymakers directly involved in AI initiatives or digital education programmes. Each interview lasted 45-60 minutes and was analysed thematically.

Document analysis: National and institutional policy documents, strategic reports on educational technology and legal frameworks were collected from the Ministry of Education and participating institutions. These documents were used to triangulate survey and interview findings and to ensure contextual accuracy and rigour in the study's results.

2.3. Sampling criteria and scope

Educational institutions were selected based on the following parameters:

Academic geography includes universities and colleges situated in both urban and peri-urban areas across Vietnam (e.g., Hanoi, Ho Chi Minh City, Da Nang, Can Tho, Dong Nai) and India (e.g., Sikkim, Bangalore), thereby capturing varying degrees of access to digital technologies.

Institutional type, encompassing both public and private establishments, to assess disparities in AI implementation capacity and operational structure.

Degree of AI integration, prioritising institutions actively engaged in AI initiatives or participating in national/international educational technology collaborations.

Educational governance bodies, surveyed to incorporate policy-level perspectives and insights into system-wide coordination.

A purposive and stratified sampling strategy was employed: Sample size: the quantitative survey was distributed to 100 participants, including teachers, students and administrators. Institutional diversity: both public and private institutions were selected, spanning urban and peri-urban regions (e.g., Hanoi, Ho Chi Minh City, Da Nang, Bangalore and Sikkim) to capture a broad spectrum of infrastructure readiness. Selection criteria: institutions were chosen based on their engagement in AI initiatives, participation in digital transformation programmes or collaborations with national and international edtech partners.

2.4. Data processing and analytical strategies

Qualitative analysis: Documents from discussions were analysed thematically to surface trends in stakeholder perception and behavioural patterns regarding AI integration in education. Particular attention was devoted to conceptions of instructional competence, AI-based teaching assistant models and normative considerations surrounding educational technology ethics.

Quantitative analysis: Numerical data were processed to identify relationships between AI adoption levels and indicators such as learning outcomes, learner satisfaction, and teaching productivity. The analytical procedure was rigorously standardised to ensure data reliability and the validity of generalisable conclusions.

Cross-national comparison: Building on the outcomes of both qualitative and quantitative analyses, a comparative lens was applied to highlight distinctions and convergences in AI adoption across Vietnam and India. This stage culminates in systematised insights and context-sensitive policy recommendations tailored to each national setting.

3. Findings

The empirical analysis of data collected from educational institutions and administrative bodies in Vietnam and India reveals the degree of artificial intelligence integration into instructional activities, academic administration and the cultivation of humanistic cognition within educational ecosystems. While both nations demonstrate a shared commitment to digital innovation in education, the implementation modalities and underlying challenges reflect substantial divergence across infrastructural capacity, policy orientation and academic culture.

3.1. AI applications in teaching and learning

In Vietnam, AI-driven tools such as ChatGPT, Gemini, Canva AI and Azota have seen increasing adoption across pedagogical settings, particularly in urban centres including Hanoi, Ho Chi Minh City, Da Nang, Can Tho and Dong Nai. Adaptive learning systems enable personalised content delivery, modulate learning pace and offer real-time feedback mechanisms that enhance cognitive development and academic achievement. A recent empirical investigation by Trang & Thu (2024) from the National Academy of Public Administration reports that AI integration has measurably elevated learner engagement and enthusiasm. However, limitations in digital infrastructure - particularly within peri-urban and rural zones - continue to hinder equitable access to AI-enabled learning tools. The absence of robust digital literacy training programmes for educators further constrains the scalability and effectiveness of AI deployment within Vietnam's educational landscape.

By contrast, India's AI implementation reflects a centralised, nationally scaled approach. Platforms such as BYJU's and Embibe are actively engaged in individualising learning trajectories and delivering systematised teacher retraining programmes. Initiatives including real-time interactive modules, virtual teaching assistants and performance analytics have demonstrably improved instructional quality and pedagogical efficacy. Notably, international cooperation schemes such as the ASEAN-India research training fellowship (2025) play a critical role in knowledge exchange and capacity building among teaching professionals.

3.2. AI in academic administration

Vietnam has recorded notable advancements in the incorporation of AI into educational administrative processes. A key innovation is the CATI-VLM system developed by the CMC Institute of Applied technology, which efficiently processes multilingual and complex educational documents. The system ranked 1st nationally and placed among the top twelve globally in the 2025 DocVQA international competition. Its implementation has significantly shortened document turnaround times and enhanced operational efficiency in Vietnamese educational institutions.

In India, AI-enabled academic management platforms have been deployed extensively, supporting automated student records processing, admissions management and resource allocation. These systems reflect both indigenous adaptation and international technological collaboration. The Indian government has established legal frameworks governing personal data protection and AI ethics to ensure procedural fairness and transparency in administrative decision-making.

Table 1. Comparative overview of AI adoption in Vietnam and India

Dimension	Vietnam	India
Pedagogical AI Applications	- Integration of ChatGPT, Canva AI, and Azota for lesson planning, test design and assessment - Focus on locally adapted, classroom-level tools to enhance flexibility and creativity	- Large-scale use of BYJU's and Embibe to deliver personalized learning trajectories - Emphasis on adaptive content delivery, gamification and scalable teacher retraining
Administrative AI Applications	- Development of the CATI-VLM system (CMC Institute of Applied Technology), internationally recognised for multilingual document processing and automated educational administration	- Deployment of centralised AI-based academic management platforms for admissions, student records, and resource allocation. - Strong reliance on national data protection and AI ethics frameworks
Policy Initiatives and Teacher Training	- Incremental policy adoption with emphasis on digital transformation in higher education. - Teacher training remains fragmented and often limited to urban areas	- National initiatives such as Digital India and DIKSHA underpin systemic digital reform. - Comprehensive teacher reskilling programmes supported by international partnerships (e.g., the ASEAN-India Research Training Fellowship)

3.3. Humanistic dimensions and stakeholder cognition

Both countries exhibit broadly positive perceptions among learners and educators regarding AI's potential to support personalised instruction and optimise pedagogical performance. Nonetheless, concerns persist regarding diminished emotional connectivity in teaching relationships, the potential for educational stratification due to infrastructure asymmetries and the imperative for algorithmic transparency.

Survey data and in-depth discussions with educators across Vietnam and India consistently underscore the irreplaceable role of human agency within the educational process. AI is viewed as an augmentative instrument rather than a pedagogical substitute. These insights affirm the proposition that AI integration must be governed by human-centred policies emphasising inclusivity and ethical integrity in shaping the future of education.
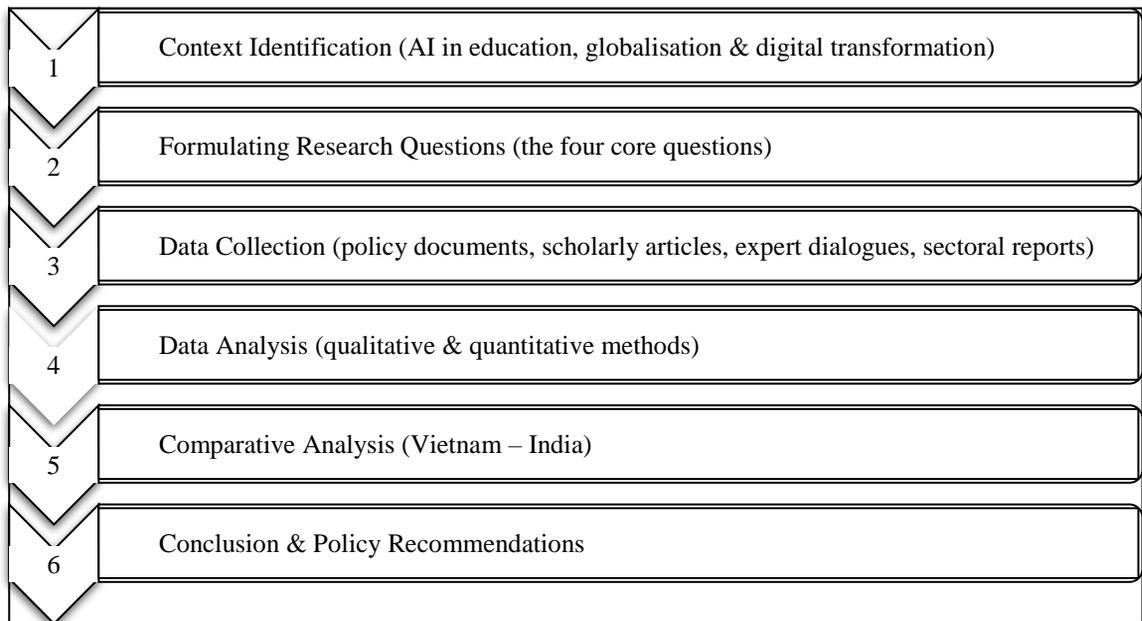
Figure 1. Research Design Flowchart of the Comparative Study on AI in Education in Vietnam and India

1. Context Identification (AI in education, globalisation & digital transformation)
2. Formulating Research Questions (the four core questions)
3. Data Collection (policy documents, scholarly articles, expert dialogues, sectoral reports)
4. Data Analysis (qualitative & quantitative methods)
5. Comparative Analysis (Vietnam – India)
6. Conclusion & Policy Recommendations

4. Discussion

The study's findings illuminate the multidimensional development of artificial intelligence within educational environments in Vietnam and India, highlighting its profound implications for pedagogical frameworks, administrative processes and humanistic educational philosophies. The discussion below analyses core trends and articulates theoretical and practical implications arising from the empirical data.

### 4.1. AI and the reconfiguration of pedagogical roles

The integration of AI into instructional processes has precipitated a substantive transformation in the role of educators and the structure of conventional classrooms. By enabling personalised content delivery, real-time academic feedback and adaptive learning trajectories, AI enhances cognitive engagement and intrinsic motivation. Within this paradigm, instructors evolve from being primary disseminators of knowledge to facilitators of autonomous learning an approach that aligns with Luckin et al. (2016), who advocate for adaptive education models in the digital era.

Empirical evidence further illustrates how AI enhances educational outcomes. For instance, the AI Assessment Scale (AIAS)

piloted at the British University Vietnam demonstrated measurable improvements: the rate of students successfully passing course modules increased by 33.3%, while overall academic achievement levels improved by 5.9%. These results provide concrete support for the argument that AI, when embedded within human centred pedagogical design, can strengthen both learning efficiency and integrity.

Nonetheless, the realisation of this pedagogical shift is contingent upon educators' digital proficiency an area of concern, particularly in regions with underdeveloped technological infrastructures. Accordingly, the prioritisation of interdisciplinary and ed-tech-orientated professional development programmes is imperative within national education policy frameworks.
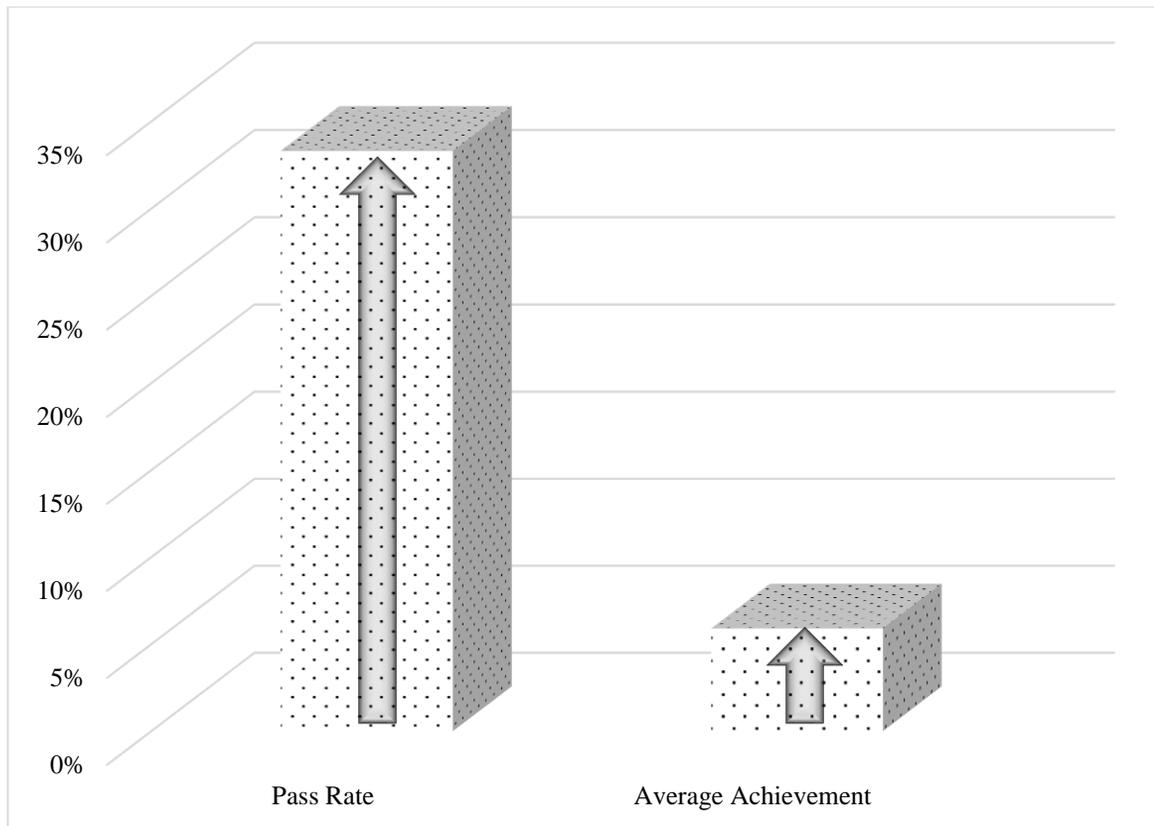
Figure 2. Illustrating the impact of AI implementation at the BUV

## 4.2. AI as a mechanism for educational governance restructuring

In the domain of academic administration, AI systems - such as Vietnam's CATI-VLM and India's expansive digital service platforms have demonstrated considerable efficacy in optimising data workflows, digitising records and supporting evidence based decision making. The transition from manual procedures to big data driven automation has enhanced institutional productivity and reinforced strategic coordination.

Vietnam's implementation tends toward culturally adapted, localised technological solutions, whereas India emphasises scalability through international collaboration and standardised governance models.

The Vietnamese educational technology (edtech) market was estimated at USD 1.0 billion in 2024 and is projected to reach USD 3.0 billion by 2033, corresponding to a compound annual growth rate (CAGR) of 12.96% between 2025 and 2033. In contrast, the Indian edtech

market was valued at USD 2.8 billion in 2024 and is anticipated to increase substantially to USD 33.2 billion by 2033, reflecting a remarkable CAGR of 28.7% over the same period (IMARC Group, 2024). These data indicate that, while Vietnam exhibits a stable and moderate growth trajectory, India's edtech sector demonstrates both a larger market scale and accelerated expansion, positioning it as a prominent emerging market on the global stage. This analysis underscores AI's transformative potential not merely as a technical tool but as a structural catalyst for reengineering educational management practices in the context of digital transition.
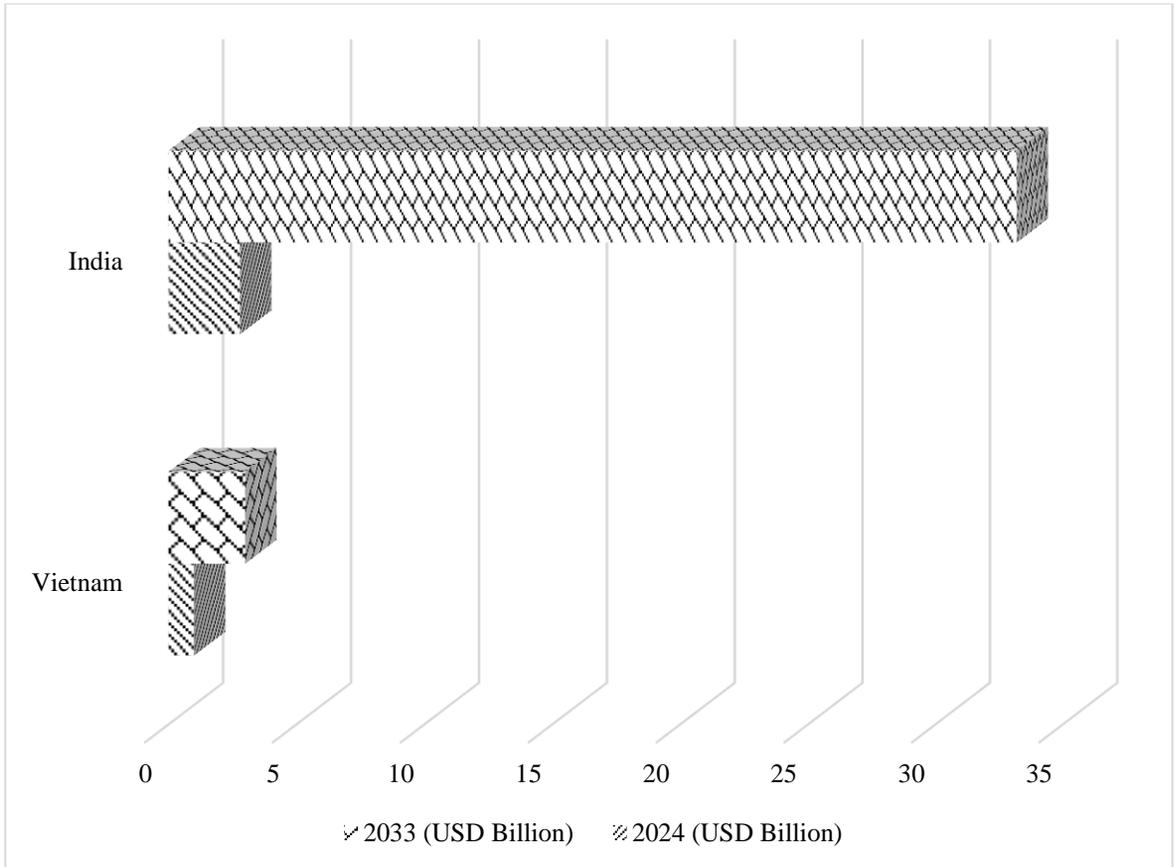
Figure 3. Projected EdTech market growth in Vietnam and India (2024-2033)

4.3. Balancing technological innovation with humanistic values

Although AI offers substantive operational benefits, its proliferation also raises critical ethical concerns and humanistic considerations. Stakeholder perspectives in both Vietnam and India reflect ambivalence regarding diminished emotional connectivity in teacher-learner relationships a foundational element of humanistic education. Additional concerns include the opacity of decision-making algorithms, the safeguarding of personal data and the risk of digital stratification within educational systems. Floridi et al. (2018) propose a normative framework of human-centred AI, which seeks to reconcile technological efficiency with educational equity, academic autonomy and social responsibility an approach increasingly pertinent to the discourse surrounding AI governance.

4.4. Comparative positioning: Vietnam and India

Both Vietnam and India position AI as a strategic instrument for educational innovation and school governance modernisation.
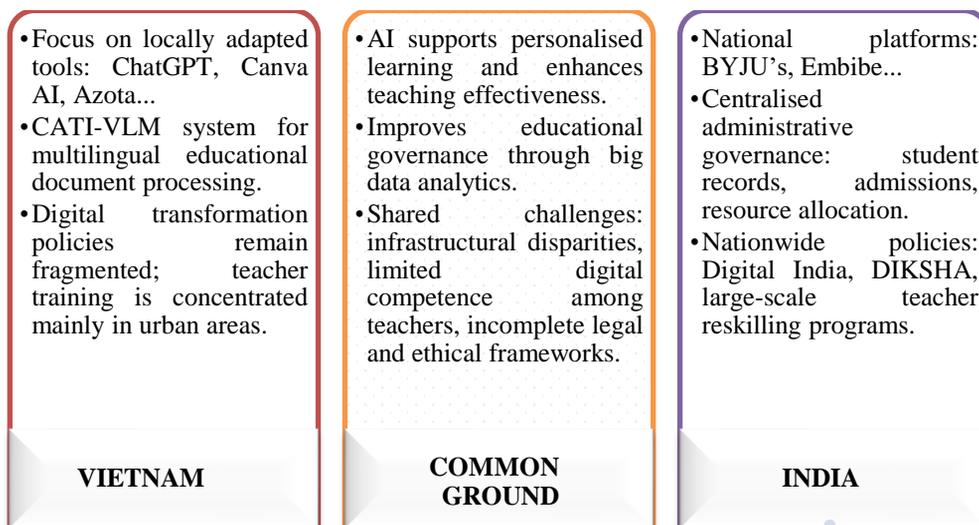
However, demographic composition, fiscal capacity, technological readiness and policy orientation have engendered distinct implementation pathways. Vietnam tends to prioritise integrated, context-sensitive solutions, while India pursues large-scale teacher retraining and transnational collaborations to standardise transformation processes.

Beyond these structural factors, deeper contextual dynamics also explain the divergence in AI adoption between Vietnam and India. Cultural orientations exert a strong influence on how innovations are introduced and scaled. In Vietnam, educational reforms have historically emphasised decentralised experimentation, where schools and local authorities enjoy relative autonomy in piloting new initiatives. This has led to the gradual emergence of classroom-based, locally adapted tools such as Azota or Canva AI, which respond directly to teachers' needs in lesson planning, assessment and student engagement. The bottom-up nature of this approach encourages creativity and flexibility but often results in fragmented implementation and limited scalability beyond urban centres. By contrast, India's long tradition of centralised policy implementation and nationwide educational campaigns (e.g., Digital India, DIKSHA) fosters a culture of top-down, standardised adoption of edtech platforms. This orientation not only accelerates the dissemination of innovations across diverse regions but also ensures consistency in how AI-enabled tools are integrated into the national education system.

Economic ecosystems further reinforce this divergence. Vietnam's edtech sector, though dynamic, remains relatively young and modest in size. It relies heavily on public-private partnerships backed by government directives, with limited attraction of international venture capital. Consequently, most AI applications in education remain domestically focused, incremental and tailored to specific institutional needs rather than expansive nationwide platforms. In contrast, India benefits from a robust and competitive edtech market that has become one of the largest in the world. The sector attracts substantial venture capital inflows, enabling companies such as BYJU's and Embibe not only to dominate the domestic market but also to expand internationally. This financial strength allows Indian platforms to invest in advanced AI technologies, large-scale teacher training and extensive content development, positioning them as global leaders in the education technology landscape.

Educational governance systems also shape the distinctive pathways of AI adoption. In Vietnam, the policy environment is relatively fragmented, with digital transformation initiatives often piloted in leading urban universities or high schools before gradually diffusing outward to other regions. While this incremental model enables context-sensitive experimentation, it can delay the establishment of nationwide standards and create disparities between urban and rural areas. India, on the other hand, maintains a more consolidated governance framework, in which central government agencies coordinate systemic reforms. National-level teacher training schemes and international fellowships, such as the ASEAN-India research training fellowship, ensure greater alignment between policy and practice. This coordinated approach enhances scalability, facilitates international collaboration and helps to build a cohesive digital education ecosystem across the country. A shared understanding persists that AI cannot serve as a monolithic solution. Its successful deployment necessitates a synergistic alignment between technological infrastructure, human-centred policy and ethical governance mechanisms.

• Focus on locally adapted tools: ChatGPT, Canva AI, Azota... • CATI-VLM system for multilingual educational document processing. • Digital transformation policies remain fragmented; teacher training is concentrated mainly in urban areas.	• AI supports personalised learning and enhances teaching effectiveness. • Improves educational governance through big data analytics. • Shared challenges: infrastructural disparities, limited digital competence among teachers, incomplete legal and ethical frameworks.	• National platforms: BYJU's, Embibe... • Centralised administrative governance: student records, admissions, resource allocation. • Nationwide policies: Digital India, DIKSHA, large-scale teacher reskilling programs.
VIETNAM	**COMMON GROUND**	**INDIA**

Figure 4. Key dimensions of AI adoption in education across Vietnam and India

5. Conclusion

This study has undertaken a comparative inquiry into the application of artificial intelligence within educational settings in Vietnam and India, with a particular focus on two core domains: instructional practice and administrative governance. Drawing upon data collected from educational institutions, regulatory agencies and policy documentation, the research affirms that both nations regard AI as a strategic instrument for modernising educational systems and fostering equitable access to learning opportunities.

Vietnam has exhibited marked progress in the development of localised AI models, particularly in the domains of natural language processing and complex document management. Conversely, India has pursued large-scale AI deployment through national-level teacher retraining initiatives and transnational collaborations designed to standardise educational technology infrastructures. Despite these advancements, both countries remain encumbered by systemic challenges, namely, digital infrastructure inequities, inadequate digital competencies among educators and the absence of comprehensive data protection mechanisms within AI-driven academic environments.

Beyond these structural challenges, this study also highlights that the divergence between Vietnam and India is not solely attributable to technological infrastructure or the availability of digital resources. Instead, deeper contextual dynamics-including cultural orientations, economic ecosystems and educational governance models-play a decisive and often underexplored role in shaping how AI is adopted, scaled and normalised within academic environments.

From a cultural perspective, Vietnam's educational reforms have historically encouraged decentralised experimentation at the school or local level. Teachers and administrators are often given space to trial innovative practices on a small scale, leading to the proliferation of classroom-orientated and context-sensitive tools such as Azota or Canva AI. This bottom-up culture fosters creativity, adaptability and responsiveness to immediate needs. However, it also risks fragmentation, as successful practices in one locality may not easily transfer to others without systemic coordination. By contrast, India has cultivated a long-standing tradition of centralised policy implementation and nationwide campaigns, such as Digital India and DIKSHA. This top-down

orientation promotes uniformity, rapid dissemination of innovations and standardised benchmarks across states and institutions, even if it sometimes limits local flexibility.

Economically, Vietnam's edtech ecosystem remains relatively young, small in scale and modest in international visibility. Its growth relies primarily on public-private partnerships and state-backed initiatives, with comparatively limited inflows of venture capital. As a result, most AI applications are incremental, designed to solve immediate institutional challenges rather than to expand into large-scale platforms with global reach. India, by comparison, has developed one of the world's most dynamic edtech markets. Supported by substantial venture capital investments, companies such as BYJU's and Embibe have the financial strength to integrate advanced AI technologies, deliver nationwide teacher training and expand beyond national borders. This global orientation strengthens India's competitive edge in the edtech industry and reinforces its leadership in shaping international discourse on AI in education.

Educational governance further reinforces these divergent pathways. In Vietnam, fragmented policy landscapes mean that digital transformation projects are often piloted in urban universities and then gradually diffused to peri-urban or rural regions. While this approach ensures sensitivity to local conditions and incremental refinement, it also delays the establishment of nationwide standards and perpetuates disparities in access. India, on the other hand, benefits from a more consolidated governance framework. National agencies coordinate systemic reforms, oversee regulatory coherence and sponsor programmes such as the ASEAN-India research training fellowship, which align policy with practice while embedding international collaboration into national priorities. This structured governance accelerates scalability and fosters a more cohesive national digital ecosystem.

By integrating these multi-layered perspectives, the present research demonstrates that AI adoption in education cannot be understood solely in terms of infrastructure or technology. Instead, it emerges as the outcome of a complex interplay between cultural norms, economic capacities and institutional governance. Recognising these contextual determinants allows for a more nuanced and comprehensive understanding of why Vietnam and India, despite similar developmental aspirations, have embarked on divergent yet complementary trajectories in their pursuit of AI-enabled educational transformation. In doing so, the study not only enriches comparative scholarship on digital education but also contributes a novel analytical lens that foregrounds the importance of cultural and systemic factors alongside technological variables.

Positioned within the theoretical framework of human-centred AI, this study reiterates that technological integration must be inseparably linked to foundational humanistic principles, including privacy rights, academic autonomy and emotional connectivity in pedagogical exchanges. AI should not be viewed as a substitute for instructional agency but rather as a supportive instrument that expands access to knowledge, enhances educational quality and optimises administrative functionality. Ultimately, the goal is not to replace educators but to empower them with tools that elevate human potential.

From a policy perspective, the study recommends that both Vietnam and India prioritise the development of transparent legal frameworks, undertake cohesive investments in digital infrastructure and implement interdisciplinary teacher training programmes

orientated toward AI competencies. Furthermore, it advocates for enhanced cross-border collaboration, including the exchange of best practices and joint research initiatives among educational institutions in both countries. These measures are vital for the cultivation of a sustainable, inclusive and ethically grounded AI ecosystem within the educational sector.

A key contribution of this research is its two-dimensional comparative perspective, which examines artificial intelligence adoption not only in instructional practice but also in administrative governance. By analysing AI-driven innovations such as personalised learning pathways, virtual teaching assistants and automated assessment tools alongside applications in data management, admissions and intelligent governance platforms, the study provides a holistic view of AI's transformative role in education. Beyond technological analysis, it highlights the interplay between cultural norms, economic ecosystems and institutional governance in shaping the distinct trajectories of Vietnam and India. This multidimensional approach advances comparative scholarship on AI in education and reinforces the importance of context-sensitive strategies for achieving equitable and sustainable digital transformation. Nevertheless, this research is not without limitations. The sample size, though diverse, remains relatively modest and concentrated in selected urban and peri-urban regions, which may not fully capture rural dynamics. Furthermore, the study primarily relies on policy documents, expert interviews and institutional reports, with limited longitudinal data to measure long-term outcomes. Future research should expand the dataset geographically, employ larger survey cohorts and incorporate longitudinal designs to evaluate the sustained impact of AI integration on teaching quality, student outcomes and governance efficiency.

For policymakers and educational managers, the findings underscore the necessity of aligning AI initiatives with broader systemic reforms. The study suggests that transparent legal frameworks, targeted teacher training, and balanced public-private partnerships are not merely technical requirements but critical levers for ensuring equitable and sustainable AI adoption. For Vietnam, this implies strengthening institutional coordination to overcome fragmented practices, while for India, it highlights the importance of embedding local flexibility within centralised programmes. Such strategic alignment will be vital for harnessing AI's full potential in fostering inclusive, high-quality education.

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