

ARTIFICIAL INTELLIGENCE AND BUSINESS ENTERPRISE GROWTH IN INDIA: AN EMPIRICAL AND THEORETICAL REVIEW

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Abstract

Artificial Intelligence (AI) has become a pivotal driver of business transformation and economic growth across emerging and developed economies. In India, the rapid diffusion of AI technologies across enterprises has significantly altered business operations, strategic decision-making, innovation processes, and competitive dynamics. This research paper critically examines the role of Artificial Intelligence in fostering business enterprise growth in India by synthesising evidence from peer-reviewed academic journals and scholarly research. Using a systematic literature review methodology, the study evaluates how AI contributes to operational efficiency, revenue growth, innovation capacity, and long-term competitiveness across Indian enterprises, including start-ups, SMEs, and large corporations. The findings reveal that AI adoption is positively associated with enterprise growth through automation, data-driven decision-making, and enhanced customer engagement. However, structural challenges such as skill shortages, infrastructural constraints, governance concerns, and difficulties in measuring AI-led value creation limit its full potential. The paper concludes by highlighting strategic implications for businesses, policymakers, and researchers and proposes directions for future research on AI-enabled enterprise growth in India.

Keywords: Artificial Intelligence, Business Growth, Indian Enterprises, Digital Transformation, Innovation, SMEs

1. Introduction

Artificial Intelligence (AI) refers to a broad spectrum of computational technologies that enable machines to perform tasks traditionally requiring human intelligence, such as learning, reasoning, prediction, perception, and decision-making. Core AI technologies—including machine learning (ML), deep learning, natural language processing (NLP), robotic process automation (RPA), and predictive analytics—are increasingly embedded within modern business systems. Over the past decade, AI has transitioned from an experimental technology to a strategic asset that reshapes business models, competitive advantage, and organisational performance (Sahu et al., 2025). Globally, AI adoption has been linked to productivity gains, cost reductions, enhanced customer experiences, and accelerated innovation cycles. In emerging economies such as India, AI assumes even greater significance due to its potential to overcome structural inefficiencies, scale business operations, and integrate enterprises into global value chains. India's rapidly expanding digital infrastructure, increasing data availability, thriving start-up ecosystem, and government initiatives supporting digitalisation have collectively created a favourable environment for AI adoption across business enterprises (Gowrishankar et al., 2025).

Indian enterprises across sectors—including information technology, e-commerce, manufacturing, financial services, healthcare, and logistics—are increasingly deploying AI solutions to optimise operations and support strategic decision-making. Empirical evidence suggests that enterprises leveraging AI achieve superior operational performance, improved market responsiveness, and higher growth trajectories compared to non-adopters (Kulkarni, 2025). However, despite these promising outcomes, AI adoption in India remains uneven and constrained by challenges related to skill availability, infrastructure readiness, ethical governance, and return-on-investment (ROI) measurement.

This research paper aims to provide a comprehensive academic analysis of the relationship between Artificial Intelligence and business enterprise growth in India. Specifically, it seeks to (i) examine the theoretical foundations linking AI adoption to enterprise growth, (ii) synthesise empirical findings from peer-reviewed research on AI-enabled business performance in India, (iii) analyse sectoral variations and adoption challenges, and (iv) propose implications for business strategy, policy formulation, and future research.

2. Theoretical Background and Conceptual Framework

The relationship between AI and business enterprise growth can be understood through multiple theoretical lenses. From a **resource-based view (RBV)** perspective, AI capabilities constitute valuable, rare, and difficult-to-imitate

resources that enhance firms' competitive advantage. AI enables enterprises to exploit data assets, automate complex processes, and develop predictive capabilities that competitors without AI struggle to replicate (Sahu et al., 2025).

From a **dynamic capabilities**' perspective, AI strengthens firms' ability to sense market changes, seize emerging opportunities, and reconfigure resources in response to environmental turbulence. AI-driven analytics allow enterprises to anticipate consumer demand, optimise supply chains, and innovate more rapidly, thereby supporting sustained growth (Dhenge, 2025). Furthermore, **innovation diffusion theory** explains how AI adoption spreads unevenly across enterprises based on factors such as organisational readiness, perceived benefits, and technological complexity. In the Indian context, larger enterprises and technology-intensive sectors exhibit faster AI adoption, while SMEs face higher entry barriers (Motilal & Sahu, 2025). These theoretical foundations collectively suggest that AI acts not merely as a technological tool but as a strategic enabler of enterprise growth by reshaping organisational capabilities, decision-making processes, and innovation pathways.

3. Literature Review

3.1 AI Adoption and Business Performance

A growing body of literature documents the positive association between AI adoption and business performance. Studies demonstrate that AI enhances operational efficiency by automating routine tasks, reducing human error, and enabling real-time analytics. Kulkarni (2025) empirically examined Indian start-ups and found that AI adoption resulted in measurable improvements in operational efficiency, cost optimisation, and revenue growth. Enterprises leveraging AI were better positioned to scale operations and respond to market volatility. Similarly, research focusing on Indian e-commerce firms revealed that AI-enabled recommendation systems, demand forecasting tools, and automated customer service significantly improved sales performance and customer satisfaction (Kulshrestha et al., 2024). These findings underscore AI's role in enhancing both internal efficiency and external market engagement.

3.2 AI, Innovation, and Strategic Decision-Making

Innovation is a critical driver of enterprise growth, and AI has been identified as a key facilitator of innovation processes. AI-driven analytics support firms in identifying emerging trends, developing new products, and optimising innovation pipelines. Dhenge (2025) highlighted that AI integration into business strategy enhances strategic agility, enabling start-ups in emerging economies to experiment, pivot, and innovate more effectively.

In the Indian IT sector, AI-driven business analytics has been shown to positively influence innovation intensity and financial performance. Sahu et al. (2025) found that firms adopting AI-based analytics reported higher levels of product and process innovation, leading to superior growth outcomes.

3.3 AI Adoption in SMEs

Small and Medium Enterprises (SMEs) play a crucial role in India's economic development, contributing significantly to employment and GDP. However, SMEs face unique challenges in adopting advanced technologies. Motilal and Sahu (2025), in their systematic literature review, reported that while AI adoption in SMEs leads to improved efficiency, customer engagement, and financial performance, barriers such as limited financial resources, lack of technical expertise, and perceived complexity hinder widespread adoption. Despite these challenges, AI adoption among Indian SMEs is gradually increasing, particularly in areas such as digital marketing, inventory management, and customer relationship management. The literature suggests that targeted policy support and affordable AI solutions could accelerate SME adoption and enhance inclusive growth.

3.4 Sectoral Perspectives on AI Adoption in India

Sectoral analyses reveal significant variation in AI adoption across Indian industries. The IT and IT-enabled services sector have emerged as a frontrunner in AI adoption, leveraging generative AI and automation to enhance productivity and service quality (Sahu et al., 2025). In contrast, traditional manufacturing and agriculture sectors exhibit slower adoption due to infrastructure constraints and skill gaps. In e-commerce and financial services, AI adoption has been particularly impactful, enabling personalised services, fraud detection, and dynamic pricing strategies. These sector-specific findings highlight the contextual nature of AI's impact on enterprise growth.

4. Research Methodology

This study adopts a **systematic literature review (SLR)** methodology to ensure methodological rigour and transparency. Peer-reviewed journal articles, conference papers, and scholarly research focusing on AI adoption and business enterprise growth in India were identified through academic databases. Only studies published in reputable academic journals were included to maintain quality and credibility.

The selected literature was analysed using qualitative content analysis to identify recurring themes, empirical findings, theoretical frameworks, and research gaps. Where available, quantitative indicators such as efficiency gains, revenue growth, and innovation outcomes were synthesised to support analytical insights.

5. Findings and Analysis

5.1 Operational Efficiency and Cost Optimisation

One of the most consistently reported benefits of AI adoption is improved operational efficiency. AI-enabled automation reduces reliance on manual processes, minimises errors, and accelerates decision-making. Kulkarni (2025) reported that Indian start-ups adopting AI experienced efficiency gains exceeding 15%, enabling them to scale operations without proportionate increases in costs.

AI-driven predictive maintenance, demand forecasting, and process optimisation have also contributed to cost reductions across sectors. These efficiency gains directly support enterprise growth by freeing resources for strategic investments and innovation.

5.2 Revenue Growth and Market Expansion

AI adoption enhances revenue generation through improved customer targeting, personalised offerings, and data-driven pricing strategies. Empirical studies in the Indian e-commerce sector demonstrate that AI adoption correlates with higher sales growth and improved customer retention (Kulshrestha et al., 2024). AI-enabled insights allow enterprises to identify new market opportunities and tailor products to evolving consumer preferences.

5.3 Innovation and Competitive Advantage

AI strengthens firms' innovation capabilities by enabling rapid experimentation, simulation, and learning. Enterprises leveraging AI are better positioned to introduce new products, improve service quality, and differentiate themselves in competitive markets. Sahu et al. (2025) found that AI-driven analytics significantly enhanced innovation outcomes in Indian IT firms, reinforcing AI's role as a strategic growth enabler.

5.4 Challenges and Constraints

Despite its benefits, AI adoption in India faces several challenges. Skill shortages remain a critical bottleneck, as demand for AI professionals outpaces supply. Infrastructure limitations, particularly in non-urban regions, further constrain AI scalability. Additionally, many enterprises struggle to measure the financial returns of AI investments, complicating strategic decision-making.

Ethical concerns related to data privacy, algorithmic bias, and governance also pose risks to sustainable AI adoption. Addressing these challenges is essential to unlocking AI's full growth potential.

6. Discussion

The findings highlight that AI significantly contributes to business enterprise growth in India by enhancing efficiency, innovation, and strategic agility. However, the uneven distribution of benefits underscores the importance of organisational readiness, sectoral context, and supportive ecosystems. Enterprises that integrate AI into core strategies—rather than treating it as a standalone technology—are more likely to realise sustained growth.

From a policy perspective, investments in digital infrastructure, AI education, and ethical governance frameworks are critical to fostering inclusive AI-driven growth. Collaboration between academia, industry, and government can accelerate capability development and reduce adoption barriers.

7. Conclusion

Artificial Intelligence has emerged as a transformative force shaping business enterprise growth in India. Evidence from peer-reviewed research demonstrates that AI adoption positively influences operational efficiency, revenue growth, innovation capacity, and competitive advantage. However, challenges related to skills, infrastructure, governance, and ROI measurement continue to limit its widespread impact.

To maximise AI's contribution to enterprise growth, Indian businesses must adopt strategic, ethical, and capability-driven approaches to AI integration. Policymakers and researchers play a vital role in shaping supportive ecosystems that enable sustainable and inclusive AI-enabled growth. Future research should focus on longitudinal analyses, sector-specific impacts, and the socio-economic implications of AI adoption in Indian enterprises.

References (APA – Peer-Reviewed Sources Only)

1. Kulkarni, A. (2025). *An empirical examination of AI adoption and its influence on business outcomes in Indian start-ups*. SSBM Geneva Research Paper Series.
2. Kulshrestha, S., Singh, M., Goel, R., & Kumar, N. (2024). The effect of artificial intelligence on the Indian e-commerce market. *Journal of Digital Economy*, 3(2), 45–62.
3. Motilal, A. S., & Sahu, G. P. (2025). Small and medium enterprises and artificial intelligence: A systematic literature review. *Journal of Business and Social Sciences*, 14(1), 1–22.
4. Sahu, E., Hans, S. K., Sharma, A., & Agnihotri, K. (2025). The impact of AI-driven business analytics on innovation and financial performance in the Indian IT sector. *Journal of Informatics Education and Research*, 5(1), 112–130.
5. Dhenge, S. N. (2025). Integrating artificial intelligence-driven data analytics with business strategy: Evidence from emerging economy start-ups. *International Journal of Multidisciplinary Research in Science and Business*, 4(3), 78–96.

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