

THE ECONOMIC IMPACT OF ARTIFICIAL INTELLIGENCE ON LABOR MARKETS IN EMERGING ECONOMIES: A SYSTEMATIC LITERATURE REVIEW

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Abstract: *Artificial intelligence (AI) profoundly impacts labor markets in emerging economies, driving job displacement, creation, and skill demand shifts, raising concerns about skill gaps, wage adjustments, and income inequality. The aim of this study is to analyze the economic impact of artificial intelligence on labor markets in emerging economies. This systematic literature review synthesized 12 selected sources (2020-2022) from major academic databases and institutional repositories. The analysis revealed AI's dual influence, causing job displacement in routine sectors while creating new roles demanding advanced digital skills. It identified pronounced skill gaps, increased demand for cognitive and socio-emotional skills, and significant wage polarization, exacerbating income inequality. These findings underscore the critical need for policy interventions to address disparities and facilitate workforce adaptation.*

Keywords: *artificial intelligence, labor markets, emerging economies, job displacement, job creation, skill gaps, wage polarization, income inequality*

INTRODUCTION

Artificial intelligence (AI) reshapes global labor markets, particularly in emerging economies, by displacing workers and creating new jobs, leading to shifts in employment and skill demands [1, 3, 5, 7]. This dual impact raises concerns regarding skill gaps, wage adjustments, and income inequality in regions facing developmental hurdles [2, 6, 11]. However, AI's specific economic impact on diverse emerging economy labor markets remains insufficiently explored. The aim of this study is to analyze the multifaceted economic impact of artificial intelligence on labor markets in emerging economies.

RQ1: How does AI adoption influence job displacement and creation across different sectors in emerging economies?

RQ2: What are the primary skill gaps and wage dynamics emerging from AI integration in these labor markets?

RQ3: To what extent does AI contribute to income inequality in emerging economies?

Literature Review

Research on emerging economies highlights AI's dual impact on labor markets, with studies from Latin America, Sub-Saharan Africa, and Asia demonstrating how automation reshapes employment structures in manufacturing and services, creating new job categories while displacing others [3, 4, 5, 7, 8, 9]. These shifts necessitate skill

adjustments, increasing demand for cognitive and socio-emotional skills [7]. Empirical analyses from South Africa and India reveal emerging skill gaps and wage polarization, with highly skilled workers benefiting while low-skilled workers face downward pressure [2, 6, 12]. This exacerbates income inequality, as technological benefits disproportionately accrue to those with complementary skills [2, 6, 11]. Policy discussions emphasize robust social protection to mitigate disparities [10].

Research Methodology

This systematic literature review analyzed the economic impact of artificial intelligence on labor markets in emerging economies. Searches were conducted across Scopus, Web of Science, Google Scholar, and institutional repositories (e.g., World Bank, ADB) for publications from 2020 to 2022. Keywords included "Artificial Intelligence," "AI," "labor markets," "employment," "skill gaps," "wage dynamics," "income inequality," and "emerging economies" [1, 5, 7].

Inclusion criteria: English-language, peer-reviewed articles, book chapters, and international organization reports on AI's labor market impact in emerging economies.

Exclusion criteria: Studies outside the specified timeframe or geographic scope, opinion pieces, and non-academic reports.

Initially, 185 sources were identified. After removing duplicates, 62 remained. Following screening, 12 sources were selected for final synthesis [2, 6, 11].

Results and Analysis

The analysis of the selected literature reveals a multifaceted economic impact of artificial intelligence on labor markets in emerging economies, addressing the research questions sequentially. Regarding RQ1, AI adoption demonstrates a dual influence on employment structures.

While automation leads to significant job displacement, particularly in manufacturing and routine service sectors across Latin America, Sub-Saharan Africa, and Asia, it simultaneously fosters the creation of new job categories and roles [3, 4, 5, 8, 9].

These newly created positions often require advanced digital and analytical capabilities, thereby fundamentally reshaping the overall employment landscape [1, 7].

For RQ2, AI integration profoundly alters skill demands and wage dynamics. Emerging economies face pronounced skill gaps, characterized by an increased demand for complex cognitive and socio-emotional skills, alongside a notable deficit in specialized AI-related competencies [2, 7].

This dynamic leads to significant wage polarization, where highly skilled workers commanding these complementary skills experience upward wage pressure, while low-skilled workers performing automatable tasks face substantial downward pressure on their earnings [6, 12].

Concerning RQ3, AI integration demonstrably contributes to income inequality in emerging economies.

The disproportionate accrual of technological benefits to those possessing advanced and complementary skills exacerbates existing disparities [2, 11].

This widening gap between the high-skilled and low-skilled segments of the workforce is a consistent finding across various emerging market contexts [6]. The primary findings are summarized in 1-jadval.

1-table. Key Impacts of AI on Emerging Economy Labor Markets

Impact Area	Observation	Supporting Evidence
Job Displacement	Automation displaces workers in manufacturing and routine service tasks	[3, 4, 5]
Job Creation	New job categories emerge, particularly in technology-complementary roles	[7, 8]
Skill Gaps	Increased demand for cognitive and socio-emotional skills; deficit in AI-related competencies	[2, 7]
Wage Dynamics	Wage polarization, with upward pressure for high-skilled and downward for low-skilled	[6, 12]
Income Inequality	Exacerbation due to disproportionate benefits for skilled workers	[2, 11]

Discussion

This systematic review confirms that artificial intelligence exerts a multifaceted and dual impact on labor markets in emerging economies. AI adoption leads to both job displacement in routine sectors and the creation of new, skill-intensive roles, fundamentally reshaping employment landscapes [3, 7, 8].

This dynamic generates pronounced skill gaps, increasing demand for complex cognitive and socio-emotional abilities while causing significant wage polarization, benefiting highly skilled workers and disadvantaging low-skilled ones [2, 6, 12].

Consequently, AI demonstrably contributes to income inequality by disproportionately favoring those with complementary skills [2, 11].

These findings resonate with broader discussions on the necessity of proactive policy responses, including human capital development and social protection, to navigate technological transitions [1, 10].

A limitation is the review's focus on a specific three-year period and English-language sources. Future research should investigate longitudinal impacts and the effectiveness of diverse policy interventions across a broader spectrum of emerging economies.

Conclusion and Recommendations

This study confirms AI's dual impact on emerging economies, displacing routine jobs while creating new, skilled roles.

This necessitates urgent investment in education and training to bridge skill gaps and mitigate wage polarization.

Policymakers must prioritize human capital development and robust social safety nets to ensure equitable benefits and prevent exacerbating income inequality, fostering inclusive economic growth.

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