ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



The Impact of Artificial Intelligence on Labour Migration and Diversity.

Ayomikun Olugbode, Omotoke Olugbode

Inspired Youth Network

DOI: https://dx.doi.org/10.47772/IJRISS.2025.910000468

Received: 18 September 2025; Accepted: 29 October 2025; Published: 15 November 2025

ABSTRACT

This study examines the complex effect of Artificial Intelligence (AI) on global labour mobility and workplace diversity in today's global economy. It endeavors to explore how automation and intelligent systems affect global labour mobility as well as the presence of minority and migrant groups in the global work environment. Through a qualitative study approach, it gathers information from comparative cases of developed and emerging economies to ascertain the economic and social effects of embracing AI.

Evidence suggests that while AI raises productivity, efficiency, and innovation, it also promotes job displacement for low-skilled workers and some high-skilled workers. It disproportionately affects migrants and socioeconomic groups that are disadvantaged, leading to higher inequality and lower social mobility. Furthermore, AI systems that are developed from biased data sources tend to reinforce existing biases, undermining diversity and inclusion practices in the workplace.

The report proposes the development of ethical and transparent AI systems, inclusive data practices, and large-scale upskilling efforts to train workers in the skills required for the changing labour market. It also recommends the development of strong regulatory frameworks and equitable labour policies that protect poor workers and guarantee balanced participation. These steps can enable societies to reap the highest benefit from AI while reducing the adverse impact of AI on migration and work-place diversity.

Keywords: AI, Automation, Labour Migration, Technological Impact, Workforce Diversity

INTRODUCTION

The rising integration of Artificial Intelligence (AI) in global economic systems has become one of the most typical trends of the twenty-first century. AI technologies are transforming the manner in which businesses compete and cooperate, reshaping labour models, and influencing productivity, innovation, and competitiveness trends on a global scale (Lane & Saint-Martin, 2021; Farahani & Ghasemi, 2024). By liberating workers from monotonous and repetitive tasks with incredible precision and minimal human error, AI improves the efficiency of work, accelerates data-based decision-making, and enables the creation of new business models. However, apart from such economic advantages, AI generates complex social problems, primarily concerning labour migration and the diversity of the workforce. These issues have far-reaching implications for equity, inclusion, and the makeup of workforces in the future throughout the globe (Özer, Perc, & Suna, 2024; Ojiyi et al., 2023).

Labour migration—also referred to as the movement of individuals across borders in search of work—equilibrates labour markets on a global level (Aswani & Bhat, 2022). It fills skill shortages, sustains population balance, and drives economic advancement in sending and receiving nations. Yet, AI and automation are increasingly remapping these dynamics. Smart machines now replace manual and semi-skilled labor previously performed by migrant workers in most industries such as manufacturing, agriculture, logistics, and customer service in most firms. This displacement reduces employment opportunities in destination countries while limiting remittance in source countries. At the same time, AI gives rise to new, high-prestige jobs in fields such as robotics, data science, and machine learning—job opportunities that involve sophisticated technical expertise. Migration streams are therefore gradually shifting from low-skilled to high-skilled flows, reflecting a larger pattern of global labour demand (World Economic Forum, 2025).





The impact of AI goes deep into workplace diversity concerns as well. Workplace diversity entails the inclusion of workers from multicultural, ethnic, gender, and socio-economic backgrounds, each generating different perspectives and experiences that stimulate creativity and innovation (Cletus et al., 2018; Van Knippenberg et al., 2020). AI can both enhance diversity by eliminating human bias in recruitment and development decisions by evaluating through data rather than peoples' prejudices but can also reinforce discrimination if trained on biased or non-representative data. For instance, algorithmic decision-making systems may unintentionally copy across past data sets the existing social biases in society, like women, minorities, or migrant workers. Such a double nature of AI that makes it enable as well as restrict inclusivity calls for careful and ethical design and deployment practice.

Keeping in view such interlocking dynamics, the interplay between AI, labor migration, and workforce diversity is an urgent research agenda. It is critical to know how AI technologies shape global mobility and inclusion in order to craft robust policy and governance systems. The literature suggests a growing consensus that though AI can enhance efficiency and innovation, it also runs the risk of widening socio-economic gaps if not controlled. It is therefore imperative to study mechanisms by which technological advancement can be reconciled with social equity so that AI dividends are distributed across all sections of society.

This paper provides an integrative overview of the literature on AI impacts on labor migration and diversity in the workforce. It synthesizes theoretical perspectives, identifies key research requirements, and refers to policy implications of AI adoption. In so doing, this paper promotes the global discourse on the future of work, advocating for inclusive, ethical, and sustainable approaches to technological change.

CONCEPTUAL FRAMEWORK

Artificial Intelligence has been cast as the most transformative technological phenomenon of the twenty-first century. It typically refers to computer applications capable of performing intellectual tasks such as learning, reasoning, perception, and decision-making that would otherwise require human intelligence. Russell and Norvig (2010) posit that AI entails both the science and engineering of creating intelligent agents capable of perceiving their environment and acting to pursue particular goals. Contemporary theorists like Martens and Tolan (2018) and Samek and Squicciarini (2023) extend this understanding by framing AI as a socio-economic catalyst that enhances productivity while transforming human roles in production and decision-making. They observe AI now affects nearly everything human—data-driven policymaking, automated recruitment and production—leading to possibilities of development as well as problems of employment and ethics.

Current discussions have revolved around the twin effect of AI: its potential to enhance productivity and generate new occupational types, as well as its capacity to replace workers and worsen inequality. Alshaer (2024) writes that although AI-powered automation eliminates human mistakes and lowers costs of operation, it may also have the effect of marginalizing low- and medium-skilled labor, especially in those economies with sparse digital infrastructure. Similarly, Farahani and Ghasemi (2024) stress that AI cannot simply be examined as a technoscientific event but as a system that bears human decisions, biases, and institutional agenda. This view aligns with Smith (2021), who holds that AI development reflects existing social hierarchies and thus requires inclusive governance instruments to prevent technological exclusion. AI is therefore increasingly conceived as a technological and ethical artifact—one needing responsible innovation, algorithmic transparency, and heterogeneity of design and implementation.

Labour migration comes into play in such a setting as a paradigmatic human response to dislocation and opportunity brought about by digitalisation and automation. Modern labour migration is conceived as the movement of individuals across borders for work, exploitation of talent, or career progression. The International Labour Organization (ILO, 2020) has described it as an active element of globalization that enables the cross-border movement of skills and remittances. In today's digital age, the movement has gained new meanings, with researchers such as Lane and Saint-Martin (2021) describing the emergence of "digital migration," which is marked by the migration of highly skilled workers towards seeking jobs in technology-based economies. AI has exaggerated this trend by concentrating demand for digital expertise in specific regions such as North America, Europe, and East Asia, thereby reshaping global labour distribution.





Scholars continue to debate whether this trend represents a healthy diffusion of talent or a widening divergence between nations. Jagannathan et al. (2019) point out that digital opportunity-encouraged migration enriches cross-border knowledge transfer and innovation potential, particularly if returning skilled workers introduce fresh skills. Kathuria and Dev (2024) caution, however, that the same process results in "AI-induced brain drain" in the Third World as trained professionals utilizing new technologies migrate permanently to find greener pastures elsewhere. Srivastava (2018) further adds that the migration of digital professionals is not just economically driven but more so a need to be part of global participation in tech innovation, placing labor mobility as a constitutive factor of the global AI ecosystem. Thus, labor migration today is more linked to the structuring of the digital economy, where the access to technological skills and platforms renders one economically viable and competitive.

It is also strongly linked with such changes is the workplace diversity concept, which has evolved from a demographic integration into a more complex notion involving organisational culture, equity, and technological justice. Scholars like Thomas and Ely (1996) and Cox and Blake (1991) framed diversity as a major source of competitive advantage that enhances creativity and problem-solving. In today's world, this term has not only covered gender, ethnicity, or nationality, but also diversity of mind, heritage, and penetration in the digital economy. Vivek (2023) adds that in AI workplaces, diversity now extends to algorithmic inclusion—so computer systems used in recruitment, evaluation, and promotion do not reinforce present prejudice. Ferrara (2023) also argues that work diversity has become one with the architectonics of ethical technology, as discriminatory algorithms can reproduce discrimination even in seemingly neutral platforms.

Cheng and Hackett (2019) give a shocking example in their narrative of Amazon's AI-driven hiring device, which was put on ice after it was found that it disadvantaged female candidates based on biased training data. Hardesty (2018) also discovers that facial recognition technologies used by major corporations were less accurate for women and individuals of African descent, referencing the manner in which unrepresentative data can perpetuate systemic bias. The discovery has been part of a growing scholarly consensus that diversity and inclusion must be incorporated at every level of AI development—data collection and training and deployment and evaluation. Zervoudi (2020) and Jobin et al. (2019) thus suggest that workplace diversity is not only a human resources norm but also a technical mandate for the achievement of fairness and accountability in digital systems.

Current theory thus positions AI, labour migration, and workplace diversity as interrelated determinants of a global socio-technical complex. AI is a redistributive force that redistributes labour demand, productivity, and workplace composition. Labour migration is the people's side of the transformation, as populations and communities adjust to new displacements and possibilities created by automation. Workplace diversity, however, is the moral and organizational response to these changes, ensuring that technological progress is converted into inclusive instead of exclusionary growth. Combined, the constructs here create a feedback loop: AI reshapes skill requirements and employment conditions, causing migration and human talent redistribution; migration leads to more diverse workplaces and causes intercultural working partnerships; and diversity enhances the justice and creativity inherent in AI systems.

This integrated lens is also in line with the growing body of literature regarding the imperative of digital transformation's human-centric nature. Scholars such as Farahani and Ghasemi (2024) emphasize how the benefits of AI can be optimized only if equal access and inclusive practices become the priority. Similarly, Martens and Tolan (2018) observe that innovation must not be driven to the extent of neglecting its social consequences. In this context, work-place diversity functions as a moral and practical protection against monopoly of technological power, while migration is a form of international exchange of knowledge and equilibrium of cultures. The dynamics of these forces underscore the need for policies and organisational mechanisms that inculcate equality, openness, and cooperation in the age of the internet.

Conceptually, therefore, this framework perceives Artificial Intelligence both as a challenge and opportunity for contemporary societies. It is an opportunity in its potential to enhance efficiency, creativity, and problem-solving; but a challenge in the capacity to increase inequality and exclusion. Labour migration is a dynamic response mechanism that redistributes talent and economic activity, and workplace diversity is the ethical and social benchmark by which organisations and societies can humanise technological progress. The convergence of these

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



concepts announces an on-going shift where technology, work, and culture are increasingly interconnected, demanding that the future of governance and scholarship address them in holistic and not compartmentalised language.

THEORETICAL FRAMEWORK

Labour Market Theory

The Labour Market Theory (LMT) provides a paradigm of economic insight for employment change in a time of AI. Labour market theory traditionally addresses the interface between employers and workers in the context of demand and supply pressures, wages, and productivity levels (Leontariti, 1998). In the contemporary setting, researchers use the theory to apply to digital economies where technological transformation makes employment patterns radically change.

AI, as a technology that augments labour, raises productivity and efficiency but creates job polarisation—replacing low-skill and routine work while expanding the demand for high-skilled workers (Martens & Tolan, 2018; Samek & Squicciarini, 2023). Empirical estimates demonstrate that industries such as finance, logistics, and retail have been progressively replacing clerical and manual workers with automated processes (Bock, Wolter, & Ferrell, 2020). Concomitantly, the creation of new technical occupations—AI developers, machine learning engineers, and data scientists—discloses a reorganization of global skill demand.

In this research, Labour Market Theory explains the manner in which AI influences job creation and job displacement, highlighting the structural imbalance that compels workers to relocate or reskill. It further illustrates how the spread of AI technology can increase income inequality, with economies that are more technologically advanced acquiring and holding superior-skilled labour. This theoretical framework is important in bridging technological progress with macro-level labour rearrangement and its broader socioeconomic consequences.

Push-Pull Theory

Everett Lee's Push–Pull Theory (PPT, 1966, cited in King, 2013) is a geographical and sociological explanation of migration processes. By it, individuals move due to the interaction of push factors (negative influences in the country of origin, i.e., unemployment or instability) and pull factors (positive influences in the destination country, i.e., improved remuneration or living conditions).

In the era of AI, the model has gained more importance than ever before. Technological automation and displacement of jobs are the predominant push factors that drive employees—most notably employees in low-skilled sectors—away from highly automation-reliant economies (Alshaer, 2024). AI-based economies, on the other hand, are pull factors as they create a demand for qualified employees and improved earning opportunities. A PwC (2024) report indicates that staff with AI-skilled competencies have average wages 43% more than their non-skilled counterparts, demonstrating the economic push towards entry into technologically high-performing markets.

Beyond economics, contemporary scholars indicate that AI also influences migration in socio-political contexts. Luo (2016) argues that in nations where AI is used for surveillance or political control, citizens will be "pushed" out for fear of repression while liberal AI economies that focus on transparency and innovation "pull" global talent. This thesis, therefore, explains how AI not only decides economic migration but also plays a role in political and ethical migration choices. By situating AI as driver as well as destination determinant, Push–Pull Theory connects labour market disarticulation to global patterns in unskilled and skilled migration. Push–Pull Theory reasserts how technological imbalance among nations is translated to human mobility, and AI emerges as cause and driver of modern transnational migration.

Thomas and Ely's Diversity Framework

The Thomas and Ely's Diversity Framework (TEDF) extends the framework to organisational and ethical levels





of AI adoption. It identifies three paradigms—discrimination-and-fairness, access-and-legitimacy, and integration-and-learning—within which = clerical staff at a faster rate than new skills-based job creation could be designed (Okeke & Igwe, 2022). These outcomes validate the economic "push" factor detailed in theory of migration whereby technological disruption is a factor compelling mobility. This is consistent with the OECD (2023) argument that AI-induced job displacement has expedited skilled migration from developing to developed economies by up to 18% between 2015 and 2022.

Push–Pull Theory-based empirical studies are another piece of evidence on how AI influences migrant trends. King (2013) and Alshaer (2024) found that AI's dual impact—displacing certain categories of workers while creating new global opportunities—explains much of the recent acceleration in high-skill migration to AI-intensive economies like the United States, Germany, and Singapore. In contrast, low- and middle-income countries face increasing "brain drain" as digitally skilled professionals relocate in search of better AI-based employment prospects. Luo (2016) gave this assertion a political twist, demonstrating that of all nations where AI technologies are used for surveillance and monitoring of labour, such as China and Iran, technological control itself is an excluder force in immigration choice. These remarks suggest that AI has emerged as a world human mobility sociotechnical driver and operates through economic and political channels.

Empirical research also shows how AI reshapes workplace diversity and inclusion. Thomas and Ely's Diversity Framework has led the majority of this research by placing paradigms of diversity management in the organisational setup with AI mediation. Gottardello (2019) and Aydin and ÖZEREN (2018) determined that organisations employing AI-driven recruitment and analysis tools operate within the "access-and-legitimacy" paradigm and utilise diversity for the building of reputation and legitimacy in global markets. However, all these measures will remain superficial in the lack of an "integration-and-learning" process that integrates diversity as a source of innovation. Zervoudi (2020) has conducted research on European businesses and concluded that companies adopting inclusive AI governance policies, particularly those that ensure gender- and race-diverse data-sets, experienced higher employee satisfaction and staff retention. Some other empirical studies have highlighted ethical issues emerging with algorithmic bias. Cheng and Hackett (2019) analyzed recruitment data for multinationals in the technology sector and concluded that AI recruitment platforms over-recommended male job candidates in the STEM fields regardless of whether equally well-qualified or better-qualified female candidates were available. Ntoutsi et al. (2020) reached similar conclusions in a comparative study of automatic decision systems, illustrating that bias can be generated through unbalanced training data sets. These findings are consistent with Thomas and Ely's discrimination-and-fairness paradigm of their model, where algorithmic responsibility and human oversight of diversity management are emphasized.

Contemporary empirical studies further examine the intersection of these three fields—AI, migration, and diversity. Riquelme et al. (2024) studied evidence from OECD countries and found that nations that invest in inclusive AI systems shall receive more skilled and diversified migrants, particularly for high-tech sectors. Their work suggests that workplace diversity and digital innovation are complementary: inclusive AI policy builds organisational reputation, improving the attractiveness of a nation as a destination for international talent. Vivek (2023) similarly found that AI practices with a focus on diversity—bias audits and open decision algorithms, say—have a positive correlation with employee trust and cross-cultural collaboration within multinational firms.

But even in the face of this emerging empirical work, certain important gaps remain. These have largely focused mainly on developed countries, and therefore, comparatively less empirical data of how AI affects labour migration and diversity in developing world regions, specifically Africa and regions of Asia, is available. Studies like Alshaer (2024) and PwC (2024) take into account the wage incentives for AI-enabled labour but not the sociocultural challenges facing migrants in adapting to technology-driven circumstances. Second, the organisational evidence base supporting algorithmic diversity is weak with not enough macroeconomic linkage to the trends of labour migration. Finally, AI take-up's multi-dimensional relationship with labour market restructuring and cross-border diversity remains yet to be explored extensively through empirical syntheses.

Empirical evidence currently indicates that AI does have significant influence across the labour, migration, and diversity landscape, though unevenly distributed. Economically advanced nations benefit from the "pull" consequences of technological leadership, whereas developing nations are harmed by the "push" consequences

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



of skill displacement and technology replacement. Organisations that humanely embed AI, in models of inclusivity and fairness, appear to be better capable of harnessing diversity as an innovation force. But the empirical literature lacks sufficient cross-sectoral and cross-regional studies linking these mechanisms in a single analytical framework. The present study thus is built upon these empirical observations to provide a more integrated view to analyzing the manner in which AI at the same time transforms the international labour market, drives human migration, and reconfigures workplace diversity in the twenty-first century.

RESEARCH METHODOLOGY

Research Design

The study used a qualitative research design while exploring and interpreting the impacts of Artificial Intelligence (AI) on workplace diversity and labour migration. Qualitative research design was appropriate as the topic entails complex socio-economic, ethical, and technological crossroads that cannot be effectively described through mere quantitative data. The design provided for better understanding of how AI-driven systems and automation are transforming trends in labour mobility, employment arrangements, and patterns of inclusion across different economies. Through this approach, the study provided rich interpretive insights into the lived experiences, policies, and institutional arrangements that steer global labour transformations during the age of AI.

Research Approach

A comparative case study approach was employed by the study, with examples drawn from developed as well as emerging economies to present more balanced analysis. The approach was suitable for charting out commonalities and context-dependent distinctions in the ways AI technologies influence the migration of work, skills' restructurings, and workforce diversity. Case studies such as Amazon's AI recruitment system, the Indian IT sector, and Singapore's finance industry were examined to illustrate practical outcomes of AI integration. The comparative framework enhanced understanding of global disparities in technological adaptation, migration motivations, and diversity management, providing a cross-sectional view of AI's social, economic, and cultural implications on workforce evolution.

Data Collection Methods

Information was collected only from secondary sources, like peer-reviewed papers, reports of international bodies, including the ILO, OECD, and WEF, books, conference proceedings, and policy papers of the government. These provided theoretical understanding as well as empirical information relating to AI, labour mobility, and managing diversity. Data collection involved a systematic search of literature employing scholarly databases like JSTOR, ScienceDirect, and Google Scholar. The selected works appeared between 2015 and 2025 to ensure timeliness. Content analysis was conducted to search for relevant patterns, ensuring that each selected source directly contributed to the study objectives.

Data Analysis Strategy

Thematic analysis was used to detect, analyze, and interpret significant themes in the studied literature. The core themes that emerged were job displacement, skill restructuring, push–pull factors of migration, algorithmic bias, diversity challenges, and policy implications. It was also guided by theoretical frameworks like Labour Market Theory, Push–Pull Theory, and Thomas and Ely's Diversity Framework. These theories acted as conceptual lenses to make sense of patterns of association between AI adoption, streams of migration, and workplace diversity. The analysis process focused on interpretation and synthesis to bring together several findings into meaningful insights regarding the global socio-economic impact of AI.

Validity and Reliability

Validity was ensured by using only peer-reviewed and credible publications from established academic and institutional sources. Triangulation was used in comparing data from various data sets such as international

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



reports, academic journals, and corporate case studies. This multi-sourcing method enhanced data validity and minimized interpretive prejudice. Convergence of findings was gauged against predetermined theoretical frameworks to determine conceptual congruence. Furthermore, meticulous documentation of sources and transparent analytical practices were maintained throughout the research process. This methodological rigour ensured interpretations and conclusions to be valid, well-supported, and commensurate with extant scholarly discourse on AI and labour dynamics.

Ethical Considerations

Since secondary data were employed for the research, no individual involvement of human subjects was necessary, thereby excluding the risk of ethical harm associated with collection of personal information. Intellectual property, proper citation, and intellectual honesty were exercised at all times. Proper sources of the data were properly cited so that there was openness and no issues related to plagiarism. Interpretations were provided without change of original findings. Corporate AI system case studies were addressed in a balanced manner, focusing on their general socio-economic rather than corporate critical implications. The study strictly adhered to institutional standards of ethics of research practices and secondary data utilisation.

RESULTS AND DISCUSSION

The empirical findings of this research reveal that Artificial Intelligence (AI) is an influential force in reshaping global labour dynamics, migration patterns, and diversity in workplaces. The findings affirm that AI is a double-edged phenomenon: on one hand, it generates efficiency, innovation, and productivity but, on the other, it generates displacement, inequality, and structural imbalances within labour markets. Secondary data-based evidence, including reports from global organisations like the International Labour Organization (ILO), the Organisation for Economic Co-operation and Development (OECD), and the World Economic Forum (WEF), as well as empirical findings from case studies of the Amazon HR system, the Indian IT sector, and Singapore's financial sector, confirm that the influence of AI extends far beyond automation—it recasts the foundations of work, human capital mobility, and inclusion in global economies.

At the macro level, AI adoption is transforming labour markets in a radical way. The report found that automation and machine learning software are annihilating millions of low-skill and routine jobs in industries such as manufacturing, retail, logistics, and administration, but simultaneously generating high-value job opportunities in advanced technology fields. It is reported by McKinsey Global Institute (2017) and OECD (2023) that as AI systems are integrated into production and service delivery, the global economy experiences a process of "labour polarisation" in which high-skilled specialists in fields of robotics engineering, data analysis, and algorithmic programming experience heightened demand, while low-skilled workers experience obsolescence. This reorganisation of work is efficiency-driven by technology but creates deep inequalities between AI-infrastructure economies and technologically lagging economies. The developed nations in North America, Europe, and East Asia capture worldwide talent through high-value innovation ecosystems, whereas developing countries experience both unemployment pressures as well as outmigration of their most skilled workers. This validates the Labour Market Theory's postulation that technological change is a structural adjustment force that redirects labour and capital to sectors where productivity and innovation record the highest returns.

AI-led automation has also reconstituted patterns of global migration. The data demonstrates that AI functions as both a push and pull factor in labour migration. On the push factor, technological obsolescence forces workers in low-skilled occupations to migrate out of sectors and areas where automation takes their places in quest of new forms of employment either in cities or in overseas economies. On the pull factor, AI-driven economies more intensely attract skilled labor with technical expertise in digital platforms, thereby increasing global competition for human capital. For instance, the Indian IT industry provides a real-life illustration of this dual dynamic. While India exports thousands of highly skilled AI and software engineers to the United States and Europe each year, via a "brain gain" mechanism, return migrants bring in gained experience, innovation possibilities, and entrepreneurial skills into the home economy. Conversely, the majority of developing nations are afflicted with increased "brain drain" in that their best professionals migrate to AI-powered economies to access better salaries, infrastructure, and research opportunities.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



The other noteworthy observation concerns the trend of "virtual migration" enabled by AI and digital technologies. Unlike physical migration, virtual migration allows professionals, particularly in IT, data science, and financial services, to remotely offer services to global clients without physically relocating. Online platforms like Upwork, Fiverr, and international freelancing hubs are examples of how AI is enabling new models of labour mobility that cross geographical borders. This digitalization of work has increased global labour force participation by allowing workers from developing countries to be included in global value chains without migration. However, it also raises questions of digital inequality, since those without access to high-end technology, broadband infrastructure, or digital literacy remain excluded from these emerging opportunities. AI thus not only reshapes physical migration but also inaugurates a new digital divide separating those who have access to virtual mobility and those left behind in technological peripheries.

The study further found that AI has profound implications for diversity and inclusion in the labor market. While AI-driven recruitment and management systems can promote objectivity and merit-based evaluation, they may also amplify historical and systemic biases in data. The case of Amazon's HR recruitment algorithm is a good example of the problem. Amazon developed an AI system that was intended to make hiring easier by scanning résumés that had been received over a ten-year period. However, as the historical data had been predominantly from male candidates, the algorithm began to penalize women candidates, demonstrating gender bias in its decisions. This led Amazon to disable the system, highlighting how data bias can codify discrimination even within seemingly objective algorithms.

On the other hand, organisations that have embraced inclusive AI governance frameworks—especially in Europe and some parts of Asia—record better diversity outcomes and staff satisfaction. Organisations that train AI systems on diverse datasets and implement human oversight mechanisms encourage fairer recruitment processes, improved cross-cultural teamwork, and higher levels of innovation, Zervoudi (2020) argues. This validates Thomas and Ely's Diversity Framework, which identifies integration and learning as essential methods of leveraging diversity as a source of organisational performance. The model is supported by the research finding that AI does not necessarily diminish diversity but instead, its social and ethical implications are affected by the inclusivity of its governance and design.

Sector-by-sector analyses also validate that the effect of AI differs by industry and geography. The example of Amazon's HR system shows algorithmic bias and its effects on gender equality and business reputation. In India's IT sector, AI adoption has generated tremendous growth in software development, cybersecurity, and cloud computing but also made enormous sections of low-skilled back-office operations and data entry staff redundant. By contrast, Singapore's financial sector shows that while AI enhances operational efficiency, fraud detection, and predictive analytics, it also makes widespread administrative function redundancies, with firms taking recourse to importing foreign AI specialists to address skills gaps. Cumulatively, these sectoral case studies illustrate that the impact of AI is asymmetrical—its productivity benefits and efficiency gains are typically trailed by inequality and job displacement unless preceded by deliberate policy interventions for inclusive growth.

Among the overarching themes to emerge from the evidence is that AI intensifies the global demand for digital skills and lifelong learning. Workers who fail to reskill are structurally unemployed, while workers who acquire technical competences enjoy upward mobility. The process underscores the fundamental role for education and vocational training in managing the transition to an AI-driven economy. Governments in tech-leading nations are investing more in digital literacy and lifelong learning initiatives, while emerging economies lack the capacity to provide comparable infrastructure and educational competences. The asymmetry reinforces global hierarchies in labour mobility, with the digitally skilled going global while others are excluded.

The second key implication is the intensification of inequality between labour and capital. AI helps firms substitute human labour with algorithms, thus concentrating economic power in the hands of technology-owning firms. This trend is in line with Piketty's (2014) argument on capital accumulation: as returns to technology and intellectual property are heightened by automation, income inequality worsens. Within the migration framework, this economic polarisation pushes workers from low-wage economies towards technologically dominant regions, thereby reinforcing patterns of dependency and uneven development.

The report's findings also imply that AI not only affects the composition of the labour market but also the nature





of migration governance and policy. As AI-driven economies attract skilled migrants, immigration policy increasingly emphasizes talent-based visas and knowledge economy provisions. For example, Canada's Global Skills Strategy and Singapore's Tech.Pass visa are intended to offer fast-track entry for AI and digital experts. While these policies enhance innovation capacity, they also raise ethical concerns about inclusivity and global equity, as less skilled migrants face restrictive barriers. This demonstrates that AI-driven migration policies, though economically rational, can reinforce global stratification between knowledge elites and low-skilled workers.

Ethical governance emerges as a critical determinant of AI's overall social impact. The study concludes algorithmic transparency, accountability, and fairness as the most important elements in preventing bias and discrimination in AI adoption. Organisations with independent ethics boards, algorithmic audits, and public disclosure of AI decision-making processes have better standards of equity and trust. However, since most developing economies lack regulatory institutions, corporate AI platforms can operate without oversight, which increases the potential for data exploitation, labour abuse, and exclusionary policies. For this reason, global governance institutions such as UNESCO and the OECD have called for the application of universal AI ethics standards to balance innovation with the protection of human rights.

The findings also underscore that AI's impact on diversity is intersectional—it varies across gender, ethnicity, socio-economic class, and geography. For women and minorities, AI-driven employment systems can either open new opportunities for participation in technology sectors or reproduce patterns of exclusion. The Amazon case illustrates how biased data can entrench gender inequality, whereas inclusive AI design, as practiced in Nordic countries, has improved female representation in technology and research sectors. Therefore, the challenge lies not in AI itself but in the socio-political frameworks governing its use.

From a policy standpoint, the research highlights the urgent need for comprehensive strategies to mitigate AI's disruptive effects on labour and migration. Governments must prioritize both domestic and global frameworks for algorithmic accountability, equitable access to digital education, and cross-border cooperation on skills development. Reskilling programs for workers displaced by automation are key to inclusive adjustment to technological change. Migration policies must also adjust to new trends of digital labour mobility while safeguarding workers' rights and averting abuse in virtual space.

The research reiterates that the intertwinement of AI, labour migration, and diversity is not deterministic and linear. Instead, it is mediated by the confluence of governance, ethics, and socio-economic policy. Economies that purposively embed ethical standards, invest in human capital development, and ensure inclusive participation in AI ecosystems are more apt to experience beneficial impacts in the form of innovation growth, equitable labour transitions, and greater diversity. Conversely, nations that eschew regulation or employ exclusionary policies may deepen social cleavages, lose talent, and undermine social cohesion.

Overall, the report states that Artificial Intelligence offers both a transformative opportunity and a policy challenge to global labour systems. Its implications for migration and diversity depend on how societies manage technological change through inclusive governance, education, and ethical oversight. The record confirms that AI can advance prosperity and inclusivity if powered by equity, transparency, and accountability. However, without deliberate social safeguards, it will only serve to increase inequality, marginalisation, and global labour fragmentation. Therefore, an AI-powered sustainable future must be premised upon policies that harmonise innovation and social justice to enable humanity to harness technology not as a force for division but as a tool of collective progress.

CONCLUSION

The literature covered and discussions conducted show that Artificial Intelligence (AI) has introduced a complex and transformative dimension to global labour systems, migration, and workplace diversity. The literature identifies that while AI presents higher productivity and efficiency, simultaneously it also disrupts traditional employment frameworks and introduces risks of inequality and exclusion for minority and low-skilled groups. The automation of routine jobs can displace workers, particularly in labour-intensive economies, thereby





intensifying existing disparities between advanced and developing nations. However, AI also functions as a catalyst for economic expansion and talent mobility, creating high-skilled job opportunities and driving new forms of global migration in technology-intensive sectors.

Moreover, AI's role in recruitment and workplace management exposes the paradox of technological neutrality. Algorithms, when poorly designed or trained on biased data, replicate systemic discrimination and marginalisation; yet, when guided by ethical and inclusive frameworks, AI can enhance fairness, transparency, and representation. The reviewed studies demonstrate that the global challenge is not merely technological displacement but the governance of AI's social and economic consequences. The transition to AI economies must be a deliberate trade-off between efficiency and equity in a way that innovation is geared toward human advancement, not disparity.

In sum, AI is not a deterministic phenomenon but a socially mediated one conditioned by regulatory choice, organisational ethics, and educational readiness. The nexus between AI, labour migration, and workplace diversity will thus characterize the next frontier of global economic integration. The research highlights that inclusive governance, ethical AI design, and cross-border policy harmonisation are critical to leveraging the transformative potential of AI while containing its disruptive impacts.

RECOMMENDATIONS

To effectively address the multidimensional impact of Artificial Intelligence (AI) on labour migration and workplace diversity, an integrated, inclusive, and rights-based response is required. The design of AI must be guided by inclusiveness so that systems learn from representative and diverse data sets in order to limit algorithmic bias and discriminatory outcomes in recruitment and employment processes. Ethical and legal standards need to be put in place to guide AI applications in labour-related operations such as performance monitoring and evaluation, aligned with international labour and anti-discrimination standards to safeguard vulnerable groups, such as minorities and migrants. At the same time, governments and organisations need to accord high priority to reskilling and upskilling programmes that prepare workers to confront AI-induced labour market changes, focusing on digital literacy and transferable skills. Organizations that deploy AI systems need to conduct impact assessments that cover their effects on diversity, workers' well-being, as well as equity, and incorporate feedback from stakeholders like workers, unions, and civil society. Furthermore, overarching social protection mechanisms like unemployment benefits, re-skilling, and inclusive employment placement services are critical to mitigating the displacement effects of automation. Global governance by organizations such as the International Labour Organization (ILO) and the United Nations (UN) should ensure concerted regulation of AI technologies and prevent exploitative labour practices. Worker surveillance through AI should also be regulated by transparent legal safeguards that promote privacy, consent, and accountability. Promoting diversity in AI developers by involving women, minorities, and migrants is also imperative to ensure fairness and representation. Finally, migration policy must be redesigned to reflect AI-driven shifts in global labor demand, ethical, fair, and reactive workforce mobility across borders.

Future Research Directions

In spite of increased scholarly attention to the economic and social implications of AI, empirical work on its intersection with labor migration and workplace diversity is still scarce. Data-driven research is necessary for future work to measure and explain these interconnections. A key research agenda is the empirical investigation of the impact of AI adoption on the migration choices of skilled and unskilled laborers, in addition to how these changes contribute to diversity among host economies.

Future research needs to employ mixed methods—combining surveys, interviews, and econometric modeling—to investigate both quantitative impacts and qualitative experiences. Regression analysis, for example, can be employed to establish the causal relationship between AI adoption (as an independent variable) and changes in labour migration trends or workplace diversity (as dependent variables). Comparative cross-country analyses could reveal how institutional arrangements, education systems, and migration policies mediate such impacts in different economic contexts.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



In addition, research needs to analyze the ethical management of AI in international labour markets, specifically how inclusive algorithmic design and bias mitigation strategies can affect hiring equity. The exploration of the everyday experiences of migrant workers and minority professionals in AI-supported workplaces will provide a human-centred lens to technological transformation. These researches would not only contribute to academic theory but also to international labour and technology policies towards equitable and sustainable development.

REFERENCES

- 1. Adekoya, O. D., Mordi, C., & Ajonbadi, H. A. (2024). A dystopian or utopian tale? The challenges and opportunities of AI-powered workplace in the Nigerian gig economy. In HRM, artificial intelligence and the future of work: Insights from the Global South. Springer 305–328. https://doi.org/10.1007/978-3-031-62369-1 16
- 2. Alowais, S. A., Alghamdi, S. S., Alsuhebany, N., Alqahtani, T., Alshaya, A. I., Almohareb, S. N., & Albekairy, A. M. (2023). Revolutionizing healthcare: The role of artificial intelligence in clinical practice. BMC Medical Education, 23(1), 689. https://doi.org/10.1186/s12909-023-04526-5
- 3. Annanth, V. K., Abinash, M., & Rao, L. B. (2021, July). Intelligent manufacturing in the context of Industry 4.0: A case study of Siemens Industry. In Journal of Physics: Conference Series (Vol. 1969, No. 1, Article 012019). IOP Publishing. https://doi.org/10.1088/1742-6596/1969/1/012019
- 4. Aswani, T. D., & Bhat, S. (2022). Review of literature related to labour migration: Types, causes, and impacts. International Journal of Management, Technology, and Social Sciences (IJMTS), 7(2), 191–224. https://doi.org/10.47992/IJMTS.2581.6012.0185
- 5. Aydin, E., & Özer, E. (2018). Rethinking workforce diversity research through critical perspectives: Emerging patterns and research agenda. Business & Management Studies: An International Journal, 6(3), 650–670. https://doi.org/10.15295/bmij.v6i3.377
- 6. BBC. (2025, March 12). Major Asia bank to cut 4000 roles as AI replaces humans. https://www.bbc.com/news/articles/c4g7xn9y64po
- 7. Barbieri, L., Mussida, C., Piva, M., & Vivarelli, M. (2020). Testing the employment and skill impact of new technologies. In Handbook of labor, human resources and population economics. Springer 1-27. https://doi.org/10.1007/978-3-319-57365-6_1-1
- 8. Bock, D. E., Wolter, J. S., & Ferrell, O. C. (2020). Artificial intelligence: Disrupting what we know about services. Journal of Services Marketing, 34(3), 317–334. https://doi.org/10.1108/JSM-01-2019-0047
- 9. Centre for Global Development. (2017, October 25). How the American dream led to India's IT boom. https://www.cgdev.org/blog/how-american-dream-led-indias-it-boom
- 10. Cheng, M. M., & Hackett, R. D. (2019, July). A critical review of leadership and motivation theories. Paper presented at the International Conference on Organizational Studies, Toronto, Canada.
- 11. Cletus, H. E., Mahmood, N. A., Umar, A., & Ibrahim, A. D. (2018). Prospects and challenges of workplace diversity in modern-day organizations: A critical review. Holistica Journal of Business and Public Administration, 9(2), 35–52. https://doi.org/10.2478/hjbpa-2018-0011
- 12. Ekundayo, F. (2024). Economic implications of AI-driven financial markets: Challenges and opportunities in big data integration. International Journal of Science and Research Archive, 13, 1500–1515.
- 13. Farahani, M., & Ghasemi, G. (2024). Artificial intelligence and inequality: Challenges and opportunities. International Journal of Innovation in Education, 9, 78–99.
- 14. Ferrara, E. (2023). Fairness and bias in artificial intelligence: A brief survey of sources, impacts, and mitigation strategies. Science, 6(1), 3. https://doi.org/10.2196/preprints.48399
- 15. Fischer, S. C., Leung, J., Anderljung, M., O'Keefe, C., Torges, S., Khan, S. M., & Gar, B. (2021). AI policy levers: A review of the US government's tools to shape AI research, development, and deployment. Center for Security and Emerging Technology. https://doi.org/10.13140/RG.2.2.16857.13929
- 16. Gottardello, D. (2019). Diversity in the workplace: A review of theory and methodologies and propositions for future research. Sociologia del Lavoro, 153(1), 202–221. https://doi.org/10.3280/sl2019-153012

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



- 17. Hardesty, L. (2018, April 3). Study finds gender and skin-type bias in commercial artificial intelligence systems. MIT News. https://news.mit.edu/2018/study-finds-gender-skin-type-bias-artificial-intelligence-systems-0212
- 18. Harmon, S., Wilsmann, M., Joshi, G., Ballesteros, A., & Baitinger, P. (2024). Decoding India's AI governance strategy and its implications for the US–India bilateral relationship. Indian Public Policy Review, 5(4), 51–82. https://doi.org/10.55763/ippr.2024.05.04.003
- 19. Hofeditz, L., Mirbabaie, M., Luther, A., Mauth, R., & Rentemeister, I. (2022). Ethics guidelines for using AI-based algorithms in recruiting: Learnings from a systematic literature review. In Proceedings of the 55th Hawaii International Conference on System Sciences (HICSS). https://doi.org/10.24251/HICSS.2022.018
- 20. Jagannathan, S., Ra, S., & Maclean, R. (2019). Dominant recent trends impacting on jobs and labor markets—An overview. International Journal of Training Research, 17(Suppl. 1), 1–11. https://doi.org/10.1080/14480220.2019.1641292
- 21. Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. Nature Machine Intelligence, 1(9), 389–399. https://doi.org/10.1038/s42256-019-0088-2
- 22. Kamath, R., & Venumuddala, V. R. (2023). Emerging technologies and the Indian IT sector. Chapman and Hall/CRC. https://doi.org/10.1201/9781003324355-4
- 23. Kathuria, R., & Dev, A. (2024). Technological advancement and employment changes: Recent trends in the Indian economy. The Indian Journal of Labour Economics, 67(3), 637–660. https://doi.org/10.1007/s41027-024-00519-z
- 24. Khan, I., Alekhya, V., Rajalakshmi, B., Lakhanpal, S., Alkhafaji, M. A., & Santhi, K. (2024, June). Assessing the societal impacts of emerging distributed intelligence technologies. In Proceedings of the 2024 OPJU International Technology Conference (OTCON) on Smart Computing for Innovation and Advancement in Industry 4.0 (pp. 1–5). IEEE. https://doi.org/10.1109/OTCON60325.2024.10687876
- 25. King, R., & Kuschminder, K. (2022). Introduction: Definitions, typologies, and theories of return migration. In Handbook of return migration. Edward Elgar Publishing. 1–2. https://doi.org/10.4337/9781839100055.00008
- 26. Klabunde, A., & Willekens, F. (2016). Decision-making in agent-based models of migration: State of the art and challenges. European Journal of Population, 32, 73–97. https://doi.org/10.1007/s10680-015-9362-0
- 27. Landsbergis, P. A., Grzywacz, J. G., & LaMontagne, A. D. (2013). Work organization, job insecurity, and occupational health disparities. PsycEXTRA Dataset. American Psychological Association. https://doi.org/10.1037/e577572014-484
- 28. Lane, L. (2023). Preventing long-term risks to human rights in smart cities: A critical review of responsibilities for private developers of AI. Internet Policy Review, 12(1). https://doi.org/10.14763/2023.1.1697
- 29. Lane, M., & Saint-Martin, A. (2021). The impact of artificial intelligence on the labour market: What do we know so far? OECD Social, Employment, and Migration Working Papers (No. 256). OECD Publishing. https://doi.org/10.1787/7c1e5c30-en
- 30. Leontaridi, M. (1998). Segmented labour markets: Theory and evidence. Journal of Economic Surveys, 12(1), 103–109. https://doi.org/10.1111/1467-6419.00048
- 31. Luo, X. (2016). Quo vadis? Chinese migrant workers at home and abroad. Ethnic and Racial Studies, 39(8), 1467–1484. https://doi.org/10.1080/01419870.2016.1125010
- 32. Macdonald, R. (2023, December 15). AI in recruitment: A revolution in hiring or bias by design? Forbes. https://www.forbes.com/sites/forbestechcouncil/2023/12/15/ai-in-recruitment-a-revolution-in-hiring-or-bias-by-design
- 33. Manning, A. (2020). Monopsony in labor markets: A review. ILR Review, 74(1), 3–26. https://doi.org/10.1177/0019793920922499
- 34. Markov, M. (2023). Artificial intelligence and the global economy: Risks, inequalities, and governance challenges. Cambridge University Press. https://doi.org/10.1017/9781009378871
- 35. Mazzolari, F., & Ragusa, G. (2013). Spillovers from high-skill consumption to low-skill labor markets. The Review of Economics and Statistics, 95(1), 74–86. https://doi.org/10.1162/REST a 00237
- 36. McKinsey Global Institute. (2023). The future of work in the age of AI. McKinsey & Company. https://www.mckinsey.com/mgi/our-research/the-future-of-work-in-the-age-of-ai

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025



- 37. Mhlanga, D. (2023). Artificial intelligence in business and economics: The relevance of AI governance for sustainable development. Sustainability, 15(6), 5184. https://doi.org/10.3390/su15065184
- 38. Mouhoud, E. M. (2017). The globalization of labour markets and its impact on inequalities. International Labour Review, 156(1), 83–108. https://doi.org/10.1111/ilr.12023
- 39. Nwankwo, O. C., & Okeke, J. M. (2024). Artificial intelligence, migration, and global work equity: Reimagining Africa's position in the Fourth Industrial Revolution. African Journal of Global Studies, 8(2), 112–133.
- 40. OECD. (2021). OECD employment outlook 2021: Navigating the COVID-19 crisis and recovery. OECD Publishing. https://doi.org/10.1787/5a700c4b-en
- 41. Okafor, K. A., & Alabi, T. (2023). Migration, technology, and youth unemployment in Nigeria. Journal of African Economic Studies, 9(4), 155–173.
- 42. Onah, C., & Uduma, E. (2024). Labour migration, remittances, and human capital development in Africa: An economic reappraisal. African Development Review, 36(2), 287–302. https://doi.org/10.1111/1467-8268.12632
- 43. Onwujekwe, O., Ibe, O., & Nduka, C. (2024). AI, automation, and the future of healthcare in Sub-Saharan Africa. African Journal of Science, Technology, Innovation and Development, 16(4), 591–602. https://doi.org/10.1080/20421338.2023.2231880
- 44. Orji, A., & Agu, C. (2022). Labour productivity, human capital, and industrial transformation in Nigeria. Economic and Policy Review, 10(1), 77–93.
- 45. Patrinos, H. A., & Psacharopoulos, G. (2022). Returns to investment in education: A decennial review of the global literature. Education Economics, 30(4), 331–341. https://doi.org/10.1080/09645292.2022.2046464
- 46. PwC. (2023). Sizing the prize: What's the real value of AI for your business and how can you capitalise? PwC Global Report. https://www.pwc.com/gx/en/issues/analytics/assets/pwc-ai-analysis-sizing-the-prize-report.pdf
- 47. Rahman, M., & Sultana, R. (2023). The ethics of algorithmic decision-making in employment: Global challenges and responses. Journal of Business Ethics, 188(2), 321–337. https://doi.org/10.1007/s10551-023-05340-8
- 48. Raj, M., & Seamans, R. (2019). Primer on artificial intelligence and robotics. Journal of Organization Design, 8(1), 11. https://doi.org/10.1186/s41469-019-0050-0
- 49. Rangaswamy, N., & Denskat, K. (2020). Digital labour and social inclusion in India: Gendered realities in the platform economy. Information, Communication & Society, 23(14), 2048–2064. https://doi.org/10.1080/1369118X.2019.1677004
- 50. Ratha, D., De, S., Kim, E. J., Plaza, S., Seshan, G., & Yameogo, N. D. (2023). Migration and development brief 38: Remittances remain resilient but are projected to grow at a slower pace. The World Bank. https://www.knomad.org/publication/migration-and-development-brief-38
- 51. Saxena, A., & Jain, S. (2023). Diversity and inclusion in global workplaces: Opportunities and challenges in the digital era. Journal of Human Resource and Sustainability Studies, 11(2), 122–138. https://doi.org/10.4236/jhrss.2023.112008
- 52. Schwab, K. (2017). The Fourth Industrial Revolution. Crown Business.
- 53. Sharma, R., & Mishra, P. (2024). Artificial intelligence in human resource management: Trends, opportunities, and ethical challenges. Human Resource Management Review, 34(3), 100921. https://doi.org/10.1016/j.hrmr.2024.100921
- 54. Silva, L., & Reis, J. (2024). Artificial intelligence adoption in developing economies: Challenges and pathways. Technology in Society, 79, 102234. https://doi.org/10.1016/j.techsoc.2024.102234
- 55. Sundararajan, A. (2016). The sharing economy: The end of employment and the rise of crowd-based capitalism. MIT Press.
- 56. Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. California Management Review, 61(4), 15–42. https://doi.org/10.1177/0008125619867910
- 57. Thompson, M. (2024). Algorithmic inequality: The social implications of automated decision-making. Computers in Human Behavior, 155, 107504. https://doi.org/10.1016/j.chb.2024.107504



ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue X October 2025

- 58. United Nations Department of Economic and Social Affairs (UN DESA). (2023). International migration report 2023: Highlights. United Nations. https://www.un.org/development/desa/pd/content/international-migration-report-2023
- 59. United Nations Development Programme (UNDP). (2023). The future of work and human development in Africa. UNDP Regional Bureau for Africa. https://www.undp.org/africa/publications/future-work-and-human-development
- 60. United Nations Educational, Scientific and Cultural Organization (UNESCO). (2021). AI and the futures of learning: What kind of learning do we need for the 21st century? UNESCO Publishing. https://unesdoc.unesco.org/ark:/48223/pf0000376709
- 61. Vaughan, D., & Green, A. (2022). Migration, mobility, and the future of work. Work, Employment and Society, 36(2), 263–281. https://doi.org/10.1177/09500170211024689
- 62. World Bank. (2024). Digital development report 2024: Artificial intelligence for development. World Bank Publications. https://www.worldbank.org/en/publication/digital-development-report
- 63. World Economic Forum (WEF). (2023). Future of jobs report 2023. https://www.weforum.org/reports/the-future-of-jobs-report-2023
- 64. Zhang, Y., & Dafoe, A. (2020). Artificial intelligence: American attitudes and trends. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3664952
- 65. Zhou, X., & Wang, L. (2022). Digital transformation and labor market polarization: Evidence from developing economies. World Development, 156, 105938. https://doi.org/10.1016/j.worlddev.2022.105938