

THE PARADOX OF PROSPERITY: KNOWLEDGE-BASED GROWTH AND YOUTH UNEMPLOYMENT IN INDONESIA - A SYSTEMATIC REVIEW

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ABSTRACT

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Background. Millions of educated young people in Indonesia remain unable to secure decent employment despite optimistic national economic growth figures, a paradox that motivates this study.

Research purpose. This study pursues four interrelated objectives: (1) to systematically map the relationship between knowledge-based economic growth and youth unemployment as documented in the global academic literature; (2) to identify determinants of youth unemployment that remain consistent across diverse country contexts; (3) to analyze the developmental consequences of persistently high youth unemployment for Indonesia; and (4) to identify the research gaps that must be addressed to support evidence-based policymaking.

Research method. Guided by the PRISMA 2020 framework, this systematic literature review analyzes 401 Scopus-indexed publications identified through four structured search strategies conducted in April 2026. The retrieved studies were synthesized through three sequential stages: descriptive analysis of publication trends and methodological orientations, thematic analysis coding recurring constructs into clusters, and critical synthesis integrating themes while surfacing contested findings and gaps.

Findings. The results indicate that economic expansion does not automatically generate youth employment, as absorptive capacity depends on sectoral composition. Youth unemployment in Indonesia stems primarily from coordination failures across education, labor institutions, and policy rather than from skill deficits alone. Its consequences extend beyond statistical indicators, suppressing GDP growth, threatening social stability, and producing scarring effects on human capital, while underutilized opportunities remain in community-based entrepreneurship, industry education partnerships, and green-blue economy development.

Conclusion. This study advocates a shift from fragmented interventions toward an integrated, evidence-driven youth employment policy framework.

Keywords: Human Capital; Indonesia; Knowledge-Based Economic Growth; Labor Market; Systematic Literature Review; Youth Unemployment.

BACKGROUND

Indonesia presents a paradox that is rarely addressed openly. The national economy has grown at an average annual rate exceeding 5%, yet millions of educated young people continue to queue for decent employment. The youth unemployment rate (ages 15 to 24) has consistently remained above 14%, nearly three times the national average. Even this figure understates the reality, as it excludes those working far below their capacity engaging in informal micro-trade, ride-hailing services, or withdrawing silently from the labor market after prolonged job searches a pattern consistent with the broader Not in Employment, Education, or Training (NEET) phenomenon documented across both Nordic and African contexts [1].

The more relevant question, therefore, is not how fast the economy is growing. Instead, it is what kind of growth is taking place and for whom it is intended. Does Indonesia's prevailing growth model genuinely create opportunities for young people, or does it primarily concentrate benefits among already established groups? How does knowledge-based economic growth interact with youth labor market dynamics? What are the implications of this interaction for the broader national development agenda?

This paradox is not unique to Indonesia; it reflects a structural pattern observed across both developing and advanced economies. Dietrich [2] shows that youth unemployment in Europe remained persistently elevated throughout 2001–2010, a disparity that widened further during the global financial crisis, while Schoon and Bynner [3] find that the school-to-work transition deteriorated sharply for young people across Europe and the United States during the Great Recession. Pastore and Choudhry [4] extend this evidence to the COVID-19 period, showing that pandemic-era disruptions reshaped school-to-work transitions and disproportionately penalized labor-market entrants relative to established workers. Ben-Salha and Mrabet [5] further demonstrate, using evidence from North Africa, that aggregate economic growth has frequently failed to generate proportional employment gains a "jobless growth" pattern also echoed in Baah-Boateng's [6] analysis of structural drivers of youth unemployment across Africa and in Zahid et al.'s [7] study on South Asia, both of which attribute the disconnect to skill mismatches, informal-sector expansion, and weak linkages between educational output and industrial demand. Collectively, these studies establish that the disconnect between economic growth and youth employment outcomes is a global structural issue rather than a country-specific anomaly. However, most of this literature treats growth as an undifferentiated aggregate, rarely distinguishing between growth driven by physical capital or resource extraction and growth driven by knowledge accumulation and intellectual capital. This distinction is precisely where the construct of intellectual economic growth becomes analytically necessary, and where an unexplored aspect of the global literature lies.

Intellectual economic growth refers to a development model primarily driven by the accumulation of knowledge, innovation, and intellectual capital, rather than by physical capital investment or natural resource exploitation alone. Romer [8] and Lucas [9] established its theoretical foundations in endogenous growth theory, emphasizing that knowledge differs fundamentally from physical capital: it is non-rivalrous, can be diffused, and generates positive externalities that sustain long-term growth. This concept is particularly relevant for Indonesia, which is currently transitioning from a commodity-based, labor-intensive manufacturing economy to a more diversified, value-added structure. However, such a transition does not automatically benefit young people. Moutinho et al. [10] find that government R&D expenditure does not significantly contribute to large-scale job creation; in contrast, university-based R&D appears more effective in reducing youth unemployment, as knowledge generated within academic institutions interacts differently

with labor markets, aligning more closely with industry needs and being more readily absorbed into productive sectors.

Beyond this macro-level relationship between knowledge-driven growth and employment, youth unemployment within Indonesia itself is not a homogeneous phenomenon. Manning and Junankar [11], in a study that remains relevant despite its age, describe two distinct patterns. On one hand, middle-class youth often engage in voluntary unemployment while waiting for jobs that match their expectations, a phenomenon commonly referred to as "queuing" (the intentional postponement of employment to seek more desirable positions). On the other hand, young individuals from lower-income backgrounds are frequently trapped in low-productivity, low-wage employment without social protection (such as insurance or safety nets), reflecting a condition of structural underutilization, in which individuals are unable to fully use their skills or capacities. Addressing these divergent experiences requires fundamentally different policy responses. Jaya [12] offers a more contemporary interpretation, arguing that graduate unemployment in Indonesia is less a matter of individual skill deficits and more a manifestation of systemic coordination failure. Specifically, there is a disconnect between educational institutions that produce graduates, industries that demand labor, and state policies intended to mediate between the two; as long as these actors operate in isolation, partial interventions are unlikely to produce sustained outcomes.

In conventional macroeconomic theory, the relationship between economic growth and unemployment is commonly expressed through Okun's Law, whereby economic expansion reduces unemployment while contraction increases it. However, this relationship is much less stable when applied to youth populations. Dixon, Lim, and van Ours [13] demonstrate that Okun's coefficient varies significantly across age groups, with young workers proving the most sensitive to business cycles: they are the first to lose jobs during economic downturns due to limited seniority, and the last to benefit from recovery, as hiring freezes often persist even after growth resumes. Zahid et al. [7] introduce a more concerning dimension by identifying a threshold effect, finding that when youth unemployment exceeds approximately 17%, each additional 1% increase is associated not only with a 0.20% decline in GDP, but with an amplified effect reaching up to 0.30%. At high levels, youth unemployment may therefore enter a self-reinforcing zone, actively suppressing the very economic growth that would otherwise help reduce it.

The global literature addressing these issues has expanded significantly, especially in the aftermath of the 2008 financial crisis and even more so since the COVID-19 pandemic, which disrupted youth labor markets worldwide [2], [3], [4]. However, studies that explicitly map the relationship between intellectual economic growth, youth unemployment, and the Indonesian context remain limited. Much of the existing Indonesian scholarship operates in isolation, examining unemployment and economic growth separately without integrating them within a unified framework [12], [14]. This gap is the primary motivation for the present study. By conducting a systematic literature review of 401 Scopus-indexed documents, this research aims to construct a comprehensive and critical knowledge map. It will identify what is already known, what remains contested, and where significant gaps in understanding the issue persist.

Building on the gaps identified in the preceding section, this study is guided by four interrelated purposes. *First*, it seeks to systematically map the relationship between knowledge-based economic growth and youth unemployment as documented in the global academic literature, with particular attention to how this relationship has been conceptualized, measured, and contested across different national contexts. *Second*, it aims to identify the determinants of youth unemployment that remain consistent across diverse country settings, distinguishing structural factors that are universally relevant from those that

are context-specific to Indonesia. *Third*, the study analyzes the developmental consequences of persistently high youth unemployment for Indonesia, encompassing its effects on economic growth, human capital accumulation, and social stability. *Fourth*, it seeks to identify the research gaps that must be addressed to support evidence-based policymaking, thereby providing a foundation for future empirical and policy-oriented inquiry. Taken together, these four purposes are intended to move beyond a descriptive accounting of youth unemployment statistics toward a critical synthesis capable of informing an integrated, evidence-driven policy framework for youth employment in Indonesia.

RESEARCH METHOD

Research Design and Paradigm

This study employs a systematic literature review guided by the PRISMA 2020 reporting framework. The choice of this approach is not merely a methodological convention. A systematic review enables the synthesis of knowledge across studies in a manner that is transparent, replicable, and verifiable, in contrast to narrative reviews, which are more susceptible to selection bias [11], [18].

From a paradigmatic standpoint, the study adopts a post-positivist epistemology. Social phenomena such as youth unemployment cannot be measured with absolute precision, but they can be approximated through systematic accumulation and critical evaluation of empirical evidence from multiple contexts.

Data Sources and Search Strategy

The literature search was conducted in the Scopus database in April 2026. Scopus was chosen because it covers more than 27,000 indexed journals [19]. Its precise Boolean search capabilities and robust bibliometric features also support intellectual mapping.

The primary search string used was:

TITLE-ABS-KEY (("youth unemployment" OR "youth joblessness" OR "NEET") AND ("economic growth" OR "knowledge economy" OR "human capital") AND ("development" OR "sustainable development" OR "socioeconomic")) AND (LIMIT-TO (PUBYEAR, 2015, 2026))

Three additional search strings incorporated keywords such as "Indonesia," "ASEAN economy," "emerging economy," and "graduate unemployment" to strengthen regional contextualization. A total of four RIS-format exports resulted in 401 documents.

Selection Criteria

Table 1. Inclusion and Exclusion Criteria [11]

No.	Criteria	Inclusion	Exclusion
1	Publication year	2015–2026 (priority); (seminal works)	2000–2014 Pre-2000 publications, except highly cited foundational works
2	Language	English and Indonesian	Other languages without English abstracts
3	Document type	Journal articles, book chapters, indexed conference papers	Blogs, non-indexed reports, theses, and dissertations
4	Topic relevance	Youth unemployment, economic growth, human capital, development	Studies outside the core analytical scope
5	Accessibility	Full text or complete abstract available	Irrelevant or unavailable abstracts

Some documents retrieved in the initial search appeared due to broad keyword overlaps for instance, studies in agriculture or conservation that mentioned “youth” and “development” in a general sense. These were excluded at the abstract screening stage rather than during the search phase to ensure transparency and auditability of the review process.

Selection Process

Table 2. PRISMA 2020 Adapted Selection Process [11]

Stage	Description	Documents
Identification	Scopus search using four strings; export in RIS format	401
Deduplication	Cross-checking DOI and titles across datasets	~340
Screening	Title and abstract review; exclusion of irrelevant topics	~180
Eligibility	Full-text assessment; final selection based on content relevance	~80–100

Synthesis Strategy

The synthesis was performed in three sequential and complementary stages, each designed to build upon the findings of the previous step. The first stage involved a narrative-thematic synthesis. Here, findings were grouped into major thematic categories, and patterns of convergence, divergence, and tension across studies were systematically identified.

Second, a conceptual analysis traced the evolution of key constructs such as NEET, human capital, the knowledge economy, and the school-to-work transition across the literature, highlighting how their meanings shift across contexts. The third and final stage used gap mapping to distinguish well-studied areas from underexplored ones, with special attention to the Indonesian context, thereby identifying research priorities.

One methodological limitation should be acknowledged. Narrative synthesis is more susceptible to interpretive bias than quantitative meta-analysis. However, this limitation is methodologically acceptable given the exploratory and contextual nature of the research questions.

FINDINGS

Distribution and Profile of the Literature

Out of the 401 identified documents, seven major thematic clusters were mapped. Studies focusing on the macroeconomic determinants of youth unemployment dominate the corpus, accounting for approximately 95 articles. These are followed by research on school-to-work transitions and NEET populations (~80 articles), vocational education and training (VET) (~65 articles), youth entrepreneurship (~60 articles), and the relationship. Studies specifically addressing Indonesia account for only around 18 articles, less than 5% of the total corpus. This proportion appears low relative to Indonesia's demographic significance and global relevance.

Temporal distribution reveals a familiar labor economics pattern: publication surges tend to follow major economic crises. The crises of 1997–1998 and 2008–2009 each triggered waves of research three to five years later. At that time, longitudinal data became available, and medium-term impacts could be assessed [7], [17]. The COVID-19 pandemic follows a similar trajectory. The years 2024 and 2025 were the most productive, with 108 publications. This indicates that the effects of the pandemic on youth employment are still being actively documented.

The Relationship Between Economic Growth and Youth Unemployment

1. Jobless Growth: Cross-Continental Evidence

One of the most consistent findings across the literature is that economic growth does not automatically reduce youth unemployment. Baah-Boateng [18] documents this pattern across 41 African countries: despite strong GDP growth during the 2000s, youth unemployment remained persistent because growth was concentrated in capital-intensive sectors rather than labor-intensive ones.

Asiimwe [19] identifies a similar pattern in Uganda, where post–neo-liberal reform growth flowed into sectors with limited demand for young labor. In North Africa, Ben-Salha and Mrabet [20] find that Okun's coefficient is unstable, suggesting that while a relationship between growth and unemployment reduction exists, it is weak and inconsistent.

In the Indonesian context, Pratama and Purmiyati [21] show that economic growth, inflation, minimum wages, and education levels jointly influence youth unemployment in industrial regions, often in non-intuitive ways. For instance, increases in minimum wages expected to encourage employment—may instead prompt firms to reduce hiring or accelerate automation.

Table 4. Summary of Findings: Economic Growth and Youth Unemployment

Study	Context	Key Findings	Critical Notes
Zahid et al. [15]	South Asia	1% increase in youth unemployment reduces GDP by 0.20%; amplified beyond 17%	First empirical identification of threshold effects in the region
Baah-Boateng [18]	41 African countries	High growth does not necessarily reduce youth unemployment	Sectoral composition is decisive
Pratama & Purmiyati [21]	Indonesia (industrial)	Growth, inflation, wages, and education jointly influence youth unemployment	Based on 2007–2015 data; requires post-pandemic update
Dixon et al. [14]	20 OECD countries	Youth are most sensitive to business cycles	Okun's coefficient varies significantly across age groups
Ben-Salha & Mrabet [20]	North Africa	Okun's coefficient unstable across countries	Okun's Law applies weakly to youth populations

2. Threshold Effect: When the Problem Becomes Self-Reinforcing

Zahid et al. [15] introduce a significant finding in this literature. Using a Dynamic Panel Threshold Model for Pakistan, India, and Bangladesh, they identify a tipping point at about 17% youth unemployment. Below this level, a 1% rise in youth unemployment reduces GDP per capita by around 0.20%. If this threshold is exceeded, the negative effect grows to about 0.30% per percentage point. At this stage, youth unemployment is not only a result of weak economic performance. It also erodes the economic capacity needed for recovery. This process creates a self-reinforcing trap that is hard to solve with small or fragmented policy responses.

For Indonesia, this finding is far from abstract. Youth unemployment rates among individuals aged 15–24, which fluctuate between 14% and 16%, are approaching this critical boundary. Without structural adjustments, the country risks entering a nonlinear dynamic regime in which policy interventions become significantly less effective.

3. Intellectual Capital as a Mediating Mechanism

Moutinho et al. [13] reveal a paradox within European data. Government expenditure on research and development (R&D) shows no statistically significant relationship with aggregate job creation. In contrast, university-based R&D demonstrates a meaningful and consistent effect in reducing youth unemployment without compromising economic growth.

The distinction lies in the nature and transmission of knowledge. University research is more adaptable, better aligned with industry needs, and helps build human capital, helping graduates move smoothly into the job market. A comparable pattern is observed in Kazakhstan [22], where the presence of higher education institutions and academic personnel correlates significantly with regional youth unemployment levels, although the strength and direction of this relationship vary across regions. These findings reinforce the

importance of contextual specificity there is no universal formula for leveraging intellectual capital to reduce unemployment.

The Structure of Youth Unemployment in Indonesia

1. Triple Constraint: A Contemporary Diagnosis

Jaya [2] provides one of the most comprehensive frameworks for understanding youth unemployment in Indonesia. The analysis identifies three interlocking structural constraints. First, labor absorption in tradable sectors has weakened because of premature deindustrialization. Indonesia is losing manufacturing jobs before reaching mature industrialization. Second, the labor market is highly segmented. The rigid formal sector coexists with a vast informal economy that offers few pathways for upward mobility. Third, a coordination trap persists among education providers, industry, and the state. This results in fragmented skill formation systems.

Indonesia's demographic transition is frequently described as a demographic dividend. However, persistently high rates of youth and vocational graduate unemployment indicate institutional challenges, not demographic benefits [2].

2. NEET and the Scarring Effect

Padillah and Saputra [3] warn that youth unemployment in Indonesia poses an immediate threat to economic performance, food security, and social cohesion. Echoing this pressing concern, Putra et al. [4] highlight a strong link between youth unemployment and rising crime rates, magnifying the urgent societal consequences.

Transitioning from these broader socioeconomic concerns, the scarring effect provides a critical conceptual lens. Extended unemployment during early adulthood results in enduring harm to human capital. Skills diminish due to underuse, professional networks remain undeveloped, and psychological confidence erodes. Individuals experiencing two to three years of unemployment in their early twenties frequently encounter persistent wage penalties and diminished career trajectories throughout their lives [23], [8]. An estimated 9 to 10 million Indonesian youth are classified as vulnerable, indicating that the cumulative long-term impact on national productivity over the next two decades will be substantial.

Determinants of Youth Unemployment: Cross-Study Synthesis

Table 5. Determinants of Youth Unemployment: Cross-Study Synthesis

Factor	Cross-Study Findings	Relevance for Indonesia
Sectoral composition of growth	The sectors driving growth determine whether employment expands for youth [18], [19]	Requires reorientation toward labor-intensive, high-value sectors
Vocational education and training (VET)	Strong industry linkage consistently reduces youth unemployment [24], [25]	Programs exist but remain fragmented in implementation
Inflation and macroeconomic stability	High inflation disproportionately affects labor market entrants [21]	Monetary stability is essential for hiring confidence
Labor market segmentation	Dual labor markets restrict access to formal employment [26], [2]	Informality (~57%) remains a major structural barrier
Entrepreneurial ecosystem	Entrepreneurship is effective only within supportive ecosystems [27], [28]	Significant potential, but requires systemic support
Active labor market policies (ALMPs)	Effective when well-targeted and properly designed [29]	Existing programs need rigorous evaluation
Education quality	Quality, rather than access alone, strongly correlates with employment outcomes [30]	Policy focus must shift toward relevance and quality

Gaps in the Literature

Four major gaps emerge from the reviewed corpus. First, longitudinal studies on Indonesian youth employment trajectories are крайне limited. There is a lack of evidence tracking individuals over 10–20 years, which is essential for understanding long-term scarring effects. Second, the voices of Indonesian youth are largely absent. Most studies treat them as statistical objects rather than agents with strategies, perceptions, and adaptive behaviors.

Third, the role of the gig economy remains underexplored. Existing studies provide preliminary insights but fail to address a critical question: does platform-based work serve as a stepping stone or a trap? Fourth, rigorous impact evaluations of youth employment programs are scarce. While numerous initiatives exist, few are assessed using methodologies capable of establishing causal effects.

DISCUSSIONS

The results of this review establish a central and unambiguous point: aggregate GDP growth alone is insufficient to determine whether an economy generates genuine opportunity for its young people [3], [4], [9]. What matters critically is not only the pace of economic expansion, but the sectoral composition of that growth, the labour-intensity of expanding industries, and the institutional pathways through which new workers can access formal employment [2], [14], [25]. Indonesia's economy has maintained relatively steady annual growth, yet much of this expansion has been concentrated in capital-intensive and resource-extractive sectors that generate limited demand for educated young labour [3], [14], [18]. As Jaya [14] notes, premature deindustrialisation compounds this structural deficiency: the manufacturing sector, which historically provides the first rung of formal employment for young workers, has weakened before Indonesia reached mature industrialisation, while the service sector remains insufficiently developed to compensate [17], [18], [25]. This study does not dismiss the importance of growth, but argues for a fundamental reorientation one that centres employment intensity, sectoral diversity, and equitable distribution of growth benefits as primary policy objectives [3], [14], [33].

The most substantive conceptual contribution of this review lies in its reframing of the problem: youth unemployment in Indonesia is not primarily a product of individual unreadiness, but of systemic coordination failure across education, labour markets, and state institutions [14], [17], [22]. While skill deficits and selective job search behaviour among middle-class youth have long been acknowledged [17], these individual-level explanations are insufficient to account for the scale and persistence of the phenomenon [12], [22], [26]. Jaya [14] demonstrates that even well-qualified graduates encounter structural barriers beyond their control, including a rigidly segmented labour market, a shallow formal sector, and an absence of transparent school-to-work transition pathways [13], [24]. Vocational education and training (VET) in Indonesia continues to perform below its stated objectives in practice, despite its prominence in national policy discourse [5], [6]. The deficit is not merely one of programme volume; what is required is a systemically integrated approach in which industries co-design curricula, competency standards are jointly validated, and the transition from education to employment is governed by clear, mutually accountable institutional mechanisms [5], [6], [19].

Indonesia is currently positioned at a historically advantageous moment in its demographic trajectory, with the working-age share of the population at or near its peak before an anticipated structural decline over the coming two to three decades [17], [30], [33]. The demographic dividend, however, does not materialise automatically from population structure; its realisation depends entirely on the quality and coherence of investments in human capital, labour market institutions, and employment policy [19], [30]. Ssewamala

[30] observes that many developing countries including those in Southeast Asia have failed to convert their demographic advantage into sustained productivity gains precisely because policy responses remained fragmented, poorly coordinated, and insufficiently evidence-based. Yusuf and Komarulzaman [33] further document that reducing youth unemployment remains among the most challenging and underperforming dimensions of Indonesia's Sustainable Development Goals, with progress substantially lagging targets set for 2030 [22], [25], [33]. While Indonesia has achieved notable advances in reducing extreme poverty and expanding access to basic education, the transition from educational attainment to productive employment remains structurally weak, requiring not incremental adjustments but fundamental policy redesign [14], [18], [33].

Despite these structural challenges, this review identifies three underexplored opportunity domains with significant and actionable policy potential. The first is community-based entrepreneurship as a complementary pathway for youth economic inclusion [1], [27], [28]. Rezky and Ridhoh [28] find that active participation in community organisations exerts a significant positive effect on students' intention to establish social enterprises ($\beta = 0.424$; $p < 0.001$), suggesting that civic engagement constitutes a meaningful antecedent of entrepreneurial orientation beyond formal education [1], [28]. Ardi et al. [1] further establish that entrepreneurial role models and structured mentoring relationships serve as significant predictors of entrepreneurial intention, reinforcing the importance of ecosystem-level factors over institutional interventions alone. Putri, Dewi, and Luxitawati [27] add that family environment exerts a comparably strong influence ($\beta = 0.334$), sometimes exceeding the effect of government-sponsored entrepreneurship programmes, underscoring that sustainable youth entrepreneurship support must engage family and community systems alongside state mechanisms [1], [27], [28].

The second underexplored opportunity lies in the green-blue economy, particularly Indonesia's extensive coastal and marine resource base [31]. Suryawan et al. [31] demonstrate that mangrove conservation in Indonesia generates substantial workforce potential that remains largely uncaptured by existing youth employment frameworks, with community competency clusters showing significant readiness for participatory conservation-based employment. Given Indonesia's position as one of the world's largest archipelagic nations, with over 54,000 kilometres of coastline and the largest mangrove coverage globally, the green-blue economy represents a structurally promising but institutionally neglected labour market frontier [31], [33]. The persistence of this gap between recognised potential and operationalised programme design points to a systemic failure to integrate environmental policy with youth employment strategy [19], [31], [33].

The third opportunity involves industry-education partnerships conceived as genuine shared investments rather than corporate social responsibility gestures [5], [6], [7]. Darmawan, Jamil, and Rees [6] demonstrate through the case of Project VALERIE in Indonesia that effective VET partnerships succeed when firms assume co-ownership of curriculum design and competency standards, thereby reducing their own recruitment costs while simultaneously improving graduate employment outcomes [5], [6]. Dhakal, Connell, and Burgess [7] situate this finding within the broader global literature on youth employment inclusion, noting that partnerships produce durable outcomes only when grounded in mutual accountability rather than charitable contribution [6], [7], [19]. The key variable in successful industry-education collaboration is not financial commitment per se, but the depth and institutionalisation of business involvement in shaping what is taught, assessed, and recognised as job-ready [5], [6], [7].

Four critical research gaps persist in the literature and must be addressed to support evidence-based youth employment policy in Indonesia. First, longitudinal studies that track individual youth employment trajectories over ten to twenty years are virtually absent [11],

[12], [24], making it impossible to establish the long-term scarring effects of early unemployment with adequate empirical precision. Second, research that positions young people as active agents with strategies, perceptions, and adaptive responses rather than as passive statistical objects remains scarce relative to macro-level econometric analyses [10], [12], [13]. Third, the role of platform-based and gig economy work is insufficiently theorised, particularly with respect to whether such employment constitutes a legitimate transitional pathway into formal work or a structural trap that reproduces precarity [8], [13], [24]. Fourth, rigorous impact evaluations of existing youth employment programmes designed from the outset with counterfactual logic are largely absent from the Indonesian policy landscape [19], [23], [32]. Without systematically addressing these gaps, policy will continue to operate on incomplete evidence and strategic assumptions that lack empirical grounding [23], [32].

Several methodological limitations of this review warrant explicit acknowledgement. First, the exclusive reliance on Scopus-indexed documents, consistent with PRISMA 2020 protocols [23], necessarily excludes research indexed in Web of Science, Google Scholar, or Indonesian SINTA-accredited journals not covered by Scopus, potentially omitting locally grounded but methodologically rigorous studies [23], [32]. Second, the restriction to English-language publications introduces a language bias that likely underrepresents Indonesian-language policy reports, government white papers, and grey literature containing context-specific insights [10], [23]. Third, the narrative-thematic synthesis methodology, while appropriate for the exploratory nature of the research questions and consistent with established systematic review standards [32], inherently produces a synthesis of extant findings rather than new primary data; conclusions drawn here are therefore contingent on the methodological quality of the 401 reviewed studies, many of which vary considerably in sample size, measurement approach, and econometric specification [19], [23], [32]. Fourth, the substantial heterogeneity in study design, contextual setting, and analytical framework across the reviewed literature precluded quantitative meta-analysis [8], [9], [19], limiting this synthesis to a narrative and thematic approach that cannot statistically pool effect sizes across contexts. Fifth, the cross-sectional character of this review reflects the state of the literature at the search cut-off date; given the rapidly evolving dynamics of youth labour markets in the post-pandemic period, newly published studies may meaningfully revise the knowledge map presented here [8], [24], [32]. Finally, although thematic coding followed an explicit and transparent protocol, a residual degree of interpretive judgment in classifying studies under the constructs of intellectual economic growth and youth unemployment remains, introducing subjectivity that future replications employing inter-rater reliability assessment could help to mitigate [23], [32].

Three evidence-grounded policy recommendations emerge from this synthesis. First, economic growth strategies in Indonesia must be fundamentally reoriented toward employment intensity; public investment incentives should be redesigned to prioritise sectors with demonstrated capacity to absorb large numbers of young, educated workers [3], [14], [25]. Second, a tripartite coordination mechanism formally constituted among government, industry, and educational institutions must be established not as a consultative forum but as an operational governance body with clear mandates, binding competency frameworks, and transparent accountability structures [5], [6], [19]. Third, every youth employment programme must be designed from inception with embedded impact evaluation frameworks, allowing both successful and unsuccessful initiatives to generate cumulative learning that progressively improves policy design [19], [23], [32]. Indonesia's demographic dividend is not a structural guarantee; it is a time-limited opportunity whose realisation depends on the coherence, coordination, and empirical rigour of policy choices made in the present decade [14], [30], [33].

CONCLUSION

This systematic literature review of 401 Scopus-indexed documents yields three interrelated conclusions. First, rapid economic growth does not automatically resolve youth unemployment, as its employment effects depend critically on the sectoral composition of the economy. An economy such as Indonesia's may sustain annual growth rates of around 5 percent while still failing to absorb millions of young workers if that growth is concentrated in low-labor-intensity sectors. Second, youth unemployment in Indonesia is fundamentally rooted in systemic coordination failures among educational institutions, labor markets, and state policy, rather than merely reflecting individual skill deficiencies. As long as these three domains operate in isolation without functional coordination mechanisms and credible feedback loops any partial or fragmented intervention is likely to yield only limited, temporary outcomes.

Third, the consequences of persistently high youth unemployment for Indonesia's development are both severe and cumulative. In the short term, it constrains economic growth; in the long term, it erodes the human capital base that should sustain future development, while simultaneously posing risks to social stability. These effects are not discrete but mutually reinforcing, amplifying the long-term developmental costs.

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