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Human Capital, Inequality, and Poverty: Pathways to Achieving SDGs 1 and 10

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Abstract

This study aims to analyze the relationship between human capital, income inequality, and poverty within the framework of achieving Sustainable Development Goals (SDGs) 1 and 10. The method used is bibliometrics by following the PRISMA guidelines. The results of the study show that human capital plays an important role in reducing poverty, especially through improving education, skills, and health. However, its effectiveness is greatly influenced by the distribution of opportunities and the level of income inequality. When access to human capital is unequal, its benefits tend to widen social disparities, so that poverty alleviation efforts be less than optimal. These findings underscore the importance of integrating human development policies with economic redistribution strategies to ensure that social investments are truly inclusive and equitable. The originality of this research lies in its comprehensive mapping of the latest literature linking the three main dimensions of human capital, income inequality, and poverty within the SDGs framework. The practical implication is that governments and policymakers need to ensure that investments in human capital are accompanied by equitable access, so that they can be an effective instrument for sustainable poverty reduction.
Keywords: Human Capital, Income Inequality, Poverty, Economic Growth, Sustainable Development Goals

Abstrak

Penelitian ini bertujuan untuk menganalisis hubungan antara *human capital*, ketimpangan pendapatan, dan kemiskinan dalam kerangka pencapaian Sustainable Development Goals (SDGs) 1 dan 10. Metode yang digunakan yakni bibliometrix dengan mengikuti pedoman PRISMA. Hasil kajian menunjukkan bahwa *human capital* berperan penting dalam mengurangi kemiskinan, terutama melalui peningkatan pendidikan, keterampilan, dan kesehatan. Efektivitasnya sangat dipengaruhi oleh distribusi kesempatan dan tingkat ketimpangan pendapatan. Ketika akses terhadap *human capital* tidak merata, manfaatnya

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cenderung memperlebar kesenjangan sosial, sehingga upaya pengentasan kemiskinan menjadi kurang optimal. Temuan ini menegaskan pentingnya integrasi kebijakan pembangunan manusia dengan strategi redistribusi ekonomi agar investasi sosial benar-benar inklusif dan berkeadilan. Orisinalitas penelitian ini terletak pada pemetaan komprehensif literatur terbaru yang menghubungkan tiga dimensi utama *human capital*, ketimpangan pendapatan, dan kemiskinan—dalam kerangka SDGs. Implikasi praktisnya, pemerintah dan pembuat kebijakan perlu memastikan bahwa investasi pada *human capital* disertai pemerataan akses, sehingga dapat menjadi instrumen efektif dalam mengurangi kemiskinan secara berkelanjutan.
Kata Kunci: Sumber Daya Manusia, Ketimpangan Pendapatan, Kemiskinan, Pertumbuhan Ekonomi, Tujuan Pembangunan Berkelanjutan

INTRODUCTION

Poverty is a global development issue that remains a serious challenge for many countries. Although international data trends show a significant decline in recent decades, empirical evidence shows that millions of people worldwide still live below the poverty line, particularly in developing countries (Azmeh & Darwich, 2025). This phenomenon emphasizes that poverty is a multidimensional issue related not only to limited income but also to access to education, health, employment opportunities, and other basic services. This complexity makes poverty alleviation a development agenda that requires a cross-sectoral and multidimensional approach. Therefore, the United Nations, through the Sustainable Development Goals (SDGs), explicitly places the eradication of poverty in all its forms (SDG1) and the reduction of inequality (SDG10) as top priorities for sustainable development. Achieving these goals is challenging because various structural factors, including the quality of human capital and the level of income inequality, remain major obstacles (Opoku et al., 2024; He et al., 2024).

The concept of human capital has long occupied a central position in the literature on economic development. Human capital encompasses the quality of human resources, reflected in education, skills, work experience, and health. Endogenous growth theory emphasizes that investment in human capital can increase labor productivity, drive economic growth, and ultimately reduce poverty. This is because better education, skills, and knowledge improve workers' productivity and enable them to adopt and develop new technologies. As productivity and income increase, economic opportunities expand, which helps improve living standards and reduce poverty. A study by Comfort et al. (2019), for example, shows that improving the quality of human capital significantly contributes to poverty reduction in OPEC member countries. Similarly, Yun-li et al. (2021) emphasize the importance of investing in education and health in breaking the intergenerational cycle of poverty in rural China. This means that development success is determined not only by the availability of physical capital or technology, but also by the quality of a nation's human resources.

The role of human capital in poverty reduction is not always smooth. Empirical studies show that improvements in education and health indicators do not automatically translate into lower poverty rates. Structural barriers such as unequal access to quality education and healthcare often limit the effectiveness of human capital development. For instance, higher education is frequently more accessible to individuals from higher-income households, while poor households face financial constraints that restrict their ability to invest in education, thereby perpetuating inequality and poverty traps (Galor & Zeira, 1993; Hai & Heckman, 2017). Similarly, unequal access to quality healthcare tends to favor wealthier groups, reducing the

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ability of disadvantaged populations to fully benefit from human capital improvements. As a result, even when education and health indicators improve at the macro level, the benefits may not be evenly distributed across society, making them less effective in significantly reducing poverty (Castelló-Climent & Doménech, 2021; Vo et al., 2023). Therefore, human capital development alone is insufficient; it must be supported by inclusive socio-economic policies and equitable access to public services.

One factor limiting the effectiveness of human capital is income inequality. Inequality not only reflects the differences between rich and poor groups but also affects the extent to which society can take advantage of development opportunities. Opoku et al. (2024) emphasized that unequal income distribution exacerbates the vulnerability of the poor, even if the national average income increases. This means that high economic growth does not automatically bring prosperity to all levels of society. In fact, He et al. (2024) found that widening inequality not only exacerbates poverty but also has negative impacts on the environment, for example through increased pollution in South Asia. Thus, income inequality is not only a distribution issue but also a factor inhibiting sustainable development.

The link between poverty, human capital, and income inequality becomes increasingly important when examined in the context of the Sustainable Development Goals (SDGs). The sustainable development agenda demands development that is inclusive, equitable, and environmentally friendly. A study by Alatinga et al. (2020) shows that social policies such as cash transfer programs can support the achievement of several SDG targets, but their effectiveness in reducing inequality and alleviating poverty remains limited. Conversely, a study by Khan et al. (2022) emphasizes that poverty and income inequality can actually increase the ecological footprint in developing countries in Asia, thus complicating the achievement of sustainable development targets. This demonstrates that efforts to address poverty cannot be separated from the integration of the SDG agenda, particularly those related to inequality reduction and environmental sustainability.

The relationship between human capital, income inequality, and poverty is interconnected and forms a complex development dynamic. Improving the quality of human capital through education, health, and skills can increase labor productivity and expand economic opportunities, potentially reducing poverty. However, if income inequality is high and access to human capital investment is unequal, the benefits of development will be enjoyed only by high-income groups, while the poor remain trapped in a cycle of poverty. Income inequality can weaken the effectiveness of human capital in reducing poverty. Understanding the relationship between these three variables is crucial for formulating an inclusive development strategy that aligns with Sustainable Development Goals (SDGs) points 1 and 10, namely poverty eradication and inequality reduction.

Empirical literature on the relationship between human capital, income inequality, the SDGs, and poverty continues to show mixed results. Some studies emphasize the importance of human capital in poverty reduction (Attanasio et al., 2025; Yun-li et al., 2021). On the other hand, others suggest that income inequality is more dominant in maintaining poverty than the role of human capital (Opoku et al., 2024; He et al., 2024). Meanwhile, studies related to the SDGs often emphasize the environmental and energy dimensions, rather than the integration of human capital and income distribution in poverty alleviation (Khan et al., 2022). These differing findings demonstrate the potential for research to simultaneously examine the interrelationships between these three variables in influencing poverty.

Research gaps are also evident from a theoretical perspective. Many previous studies rely on endogenous growth theory, which emphasizes the importance of human capital. However,

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this theory does not adequately explain how income inequality reduces the effectiveness of human capital in reducing poverty. Furthermore, the theoretical framework in SDG studies emphasizes the environmental and energy dimensions, thus failing to fully integrate the role of human capital and income distribution in achieving poverty-related SDG targets (Khan et al., 2022). This underscores the need for a new, more comprehensive analytical framework.

The urgency of this research is further strengthened given that poverty, inequality, and limited human capital are interrelated issues with significant implications for sustainable development. Without integrative efforts, poverty alleviation policies risk being partial and ineffective. Most previous studies have only highlighted a few aspects, such as the relationship between human capital and poverty or inequality and sustainable development (Comfort et al., 2019; Opoku et al., 2024), resulting in the lack of a comprehensive study linking the three within the SDGs framework. The novelty of this research lies in its attempt to fill this gap by examining the simultaneous interactions between human capital, income inequality, and the SDGs in influencing poverty.

The main problem in this research lies in how the relationship between human capital, income inequality, and the achievement of the Sustainable Development Goals (SDGs) plays a role in influencing poverty levels. Although various studies have shown that improving the quality of human capital contributes to poverty reduction, in reality, this impact is not always consistent due to the persistence of structural barriers in the form of income inequality and unequal distribution of welfare. Furthermore, previous empirical studies have not integrated these three aspects into a comprehensive analytical framework, particularly in the context of achieving the SDGs goals that emphasize poverty eradication and inequality reduction. This research is designed to address the question of how human capital and income inequality simultaneously influence poverty within the framework of sustainable development.

This study aims to analyze current understandings in the literature regarding the relationship between human capital, income inequality, and poverty, within the context of achieving Sustainable Development Goals (SDGs) point 1 and point 10. Through a bibliometric approach and Systematic Literature Review (SLR), this study seeks to trace the development, patterns, and directions of global research that discuss the relationship between these three variables in the context of sustainable development. In addition, this study aims to identify key findings, research gaps, and offer a conceptual mapping that can strengthen theoretical understanding of the role of human capital and income distribution on poverty dynamics. Thus, the results of this study are expected to provide empirical and conceptual contributions to the development of more inclusive and socially just development policies in accordance with the SDGs agenda.

METHODOLOGY

This research is a bibliometric study using the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method to ensure a transparent and systematic literature selection process. The PRISMA guidelines are widely used to improve the reporting quality and rigor of systematic reviews (Matthew J. Page et al., 2021). The data were processed using RStudio with the Bibliometrix package, which provides tools for comprehensive bibliometric analysis of scientific literature (Massimo Aria & Corrado Cuccurullo, 2017), and visualized using VOSviewer software to map relationships among keywords, themes, and research trends in the field of human capital, income inequality, and poverty (Nees Jan van Eck & Ludo Waltman, 2010).

The research stages were carried out according to the PRISMA flow, which consists of four

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main processes: identification, screening, eligibility, and inclusion. In the identification stage, articles were searched using relevant keywords such as "human capital", "income inequality", "poverty", and "Sustainable Development Goals (SDGs)". The search process focused on the Scopus database, which is widely recognized as one of the most comprehensive indexing platforms for peer-reviewed international journals, ensuring the inclusion of high-quality and relevant studies in the literature review, because this database provides broad multidisciplinary coverage, covering economic, social, environmental, and public policy fields relevant to the research theme. In addition, articles indexed by Scopus have generally gone through a rigorous peer review process, thus guaranteeing the quality and scientific validity of the literature used. The stages are as follows:

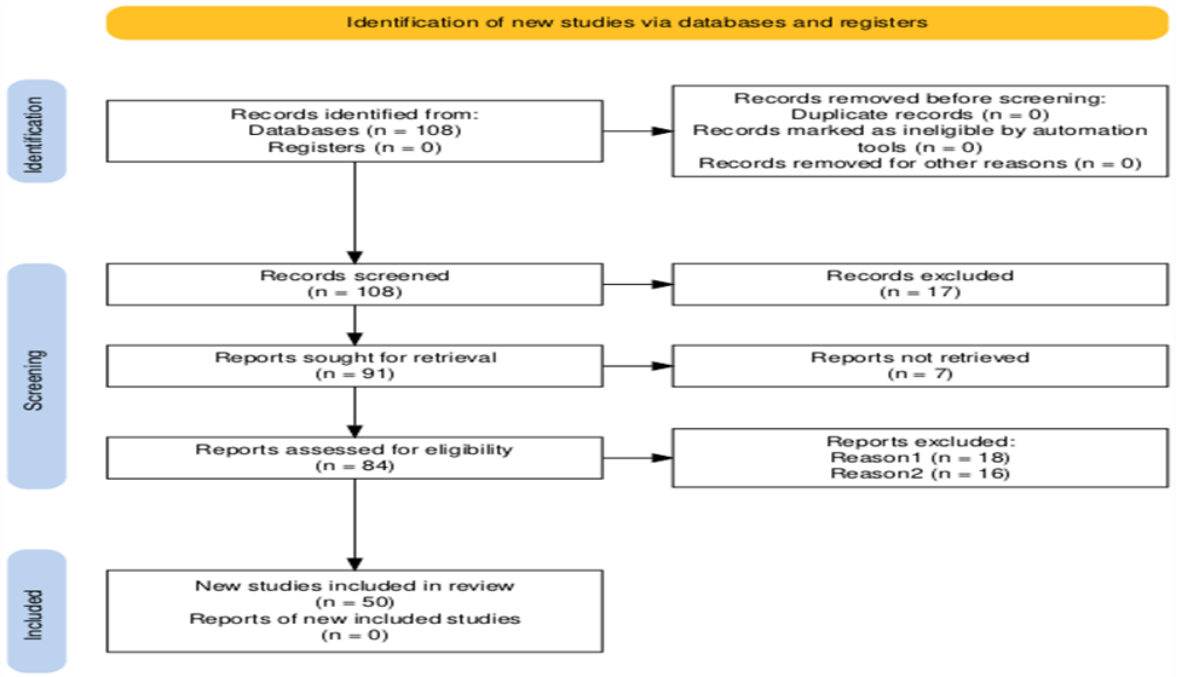


Figure 1. Identification of New Studies via Databases and Registers
Source: Adapted from PRISMA 2020 Statement (Page et al., 2021)

The literature selection process in this study was based on a Systematic Literature Review (SLR) following the PRISMA guidelines. A total of 108 articles (n = 108) were initially identified from the Scopus database using a combination of the keywords “human capital,” “income inequality,” “poverty,” and “sustainable development goals,” which represent the focus of this research. After the screening process, 91 articles were considered relevant for further review, while 17 articles were excluded because they did not match the research context. During the eligibility assessment stage, 84 articles met the initial criteria; however, 34 articles were later removed due to limited empirical or conceptual relevance. As a result, 50 articles were included in the final analysis. The selected literature was then analyzed using bibliometric techniques, including trending topic analysis, which identifies research themes that frequently appear and develop over time, and the three-field plot, a visualization that illustrates the relationships between key elements such as authors, keywords, and sources. This systematic approach ensures that the study analyzes relevant and high-quality literature and provides a clearer understanding of the relationship between human capital, income inequality, and poverty.

DISCUSSION AND FINDINGS

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Descriptive Statistics

The analysis of the selected literature highlights the important role of human capital in addressing poverty and improving socio-economic conditions. Human capital, which includes education, health, knowledge, and skills, is widely recognized as a key factor in increasing labor productivity and expanding economic opportunities. Many studies indicate that investments in education and skill development can improve individuals' employability and income potential, thereby contributing to poverty reduction. However, the literature also emphasizes that the effectiveness of human capital development depends on the broader socio-economic environment, particularly the level of income inequality within a society.

Several studies show that unequal access to education, healthcare, and economic opportunities can limit the impact of human capital development on poverty reduction. When access to these resources is concentrated among higher-income groups, disadvantaged populations may face barriers in improving their skills and economic conditions. In addition, structural inequalities such as regional disparities, intergenerational poverty, and limited institutional support can further reinforce persistent poverty. Therefore, many scholars argue that poverty alleviation strategies should not only focus on improving human capital but also address income inequality and structural barriers to ensure more inclusive and sustainable development outcomes.

Trending Topics

Analyzing topic trends is crucial for understanding the direction of research interest over time. By observing how the frequency of certain terms changes each year, we can identify research focuses that are on the rise or decline. The following figure displays topic trends related to socioeconomic issues such as inequality, poverty, and economic growth over the past two decades. This visualization helps demonstrate how academic attention to these topics has evolved and demonstrates the link between major themes such as human capital, education, and income distribution and the dynamics of global development.

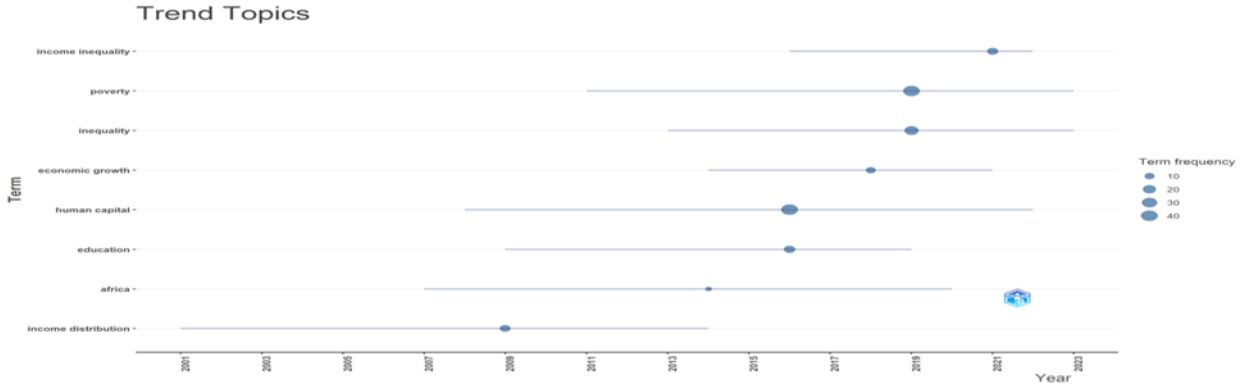


Figure 2. Trend Topics
Source: RStudio

Topic trend analysis shows that poverty and inequality were the most dominant themes in the literature from 2010 to 2020. These two terms had the highest frequency of occurrence, as evidenced by the larger bubble sizes compared to other topics. However, the literature indicates that inequality is discussed in several specific forms, including income inequality (Vo et al., 2023; Khan et al., 2022), human capital and education inequality (Castelló-Climent & Doménech, 2021; Hai & Heckman, 2017), racial inequality (Johnson, 2000), and energy poverty or inequality in access to energy resources (Mastrucci et al., 2019; Opoku et al., 2024). Some studies also highlight gender-related inequality in human capital development (Luccisano, 2004) and the intergenerational transmission of poverty linked to unequal

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opportunities (Bai et al., 2021). These findings suggest that research attention during this period was not only focused on poverty alleviation but also on various structural forms of inequality that influence socio-economic welfare across regions.

Furthermore, topics related to human resource development, such as human capital and education, also occupy a prominent position in the research landscape. These two terms frequently emerged between 2015 and 2020, indicating increasing attention to the role of education and human capital strengthening in driving inclusive economic growth. This focus reflects the academic view that improving the quality of human resources is a strategic tool for reducing poverty and narrowing income disparities in society.

Furthermore, the issue of economic growth has also become part of the research discourse, albeit with relatively less frequency. This topic is often positioned as a contextual variable in discussions of income inequality and distribution. A shift in research direction is also evident: in the early 2000s, income distribution was quite prominent, but after 2010, attention shifted to the more specific topic of income inequality. Meanwhile, regional topics such as Africa also appear in the literature, reflecting the growing scholarly attention to poverty and inequality issues in this region. Africa is frequently highlighted because many countries in the region continue to face persistent challenges related to poverty, unequal access to education, and limited human capital development. Several studies emphasize that policy interventions, such as social protection programs and investments in human capital, play an important role in addressing these challenges. For example, research on Ghana's Livelihood Empowerment Against Poverty (LEAP) program shows that cash transfer policies can contribute to poverty reduction and support multiple Sustainable Development Goals (Alatinga et al., 2020). These findings indicate that Africa provides an important empirical context for understanding how human capital development and social policies can help reduce poverty and inequality.

Three-Field Plot

Understanding the relationship between reference sources, authors, and primary keywords in research can be gained through bibliometric analysis, visualized in the following figure. This visualization illustrates the relationship between cited references (CR), authors (AU), and merged keywords (KW_Merged), thus demonstrating how academic literature is interconnected and forms specific thematic clusters. Through this analysis, the most influential reference sources, dominant authors, and the main topics of focus in various research studies can be identified.

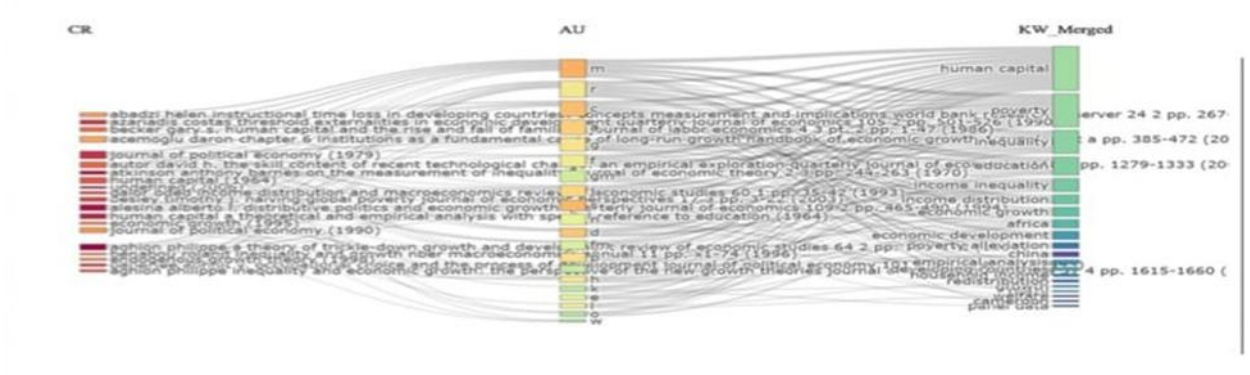


Figure 3. Three-Field Plot
Source: RStudio

The results of the three-field plot analysis show a close relationship between frequently used references, authors, and key keywords in the literature on economic development, inequality, and poverty. Some of the dominant references in the past decade come from research linking

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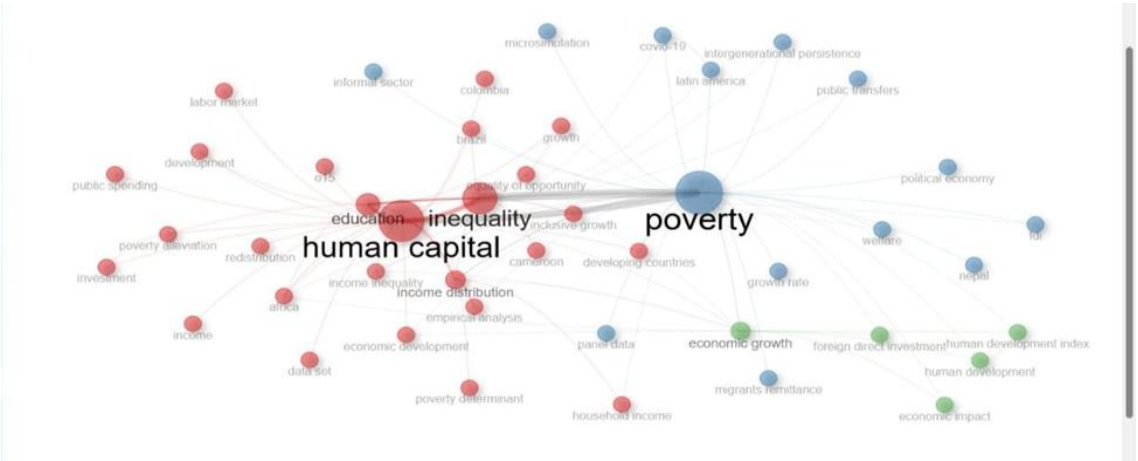
human capital, income inequality, and poverty within the framework of achieving the Sustainable Development Goals (SDGs). For example, a study by Comfort et al. (2019) emphasized that improving the quality of human capital contribute significantly to poverty reduction in OPEC member countries, while Yun-li et al. (2021) highlight the importance of educational investment in breaking the intergenerational cycle of poverty in rural China. Furthermore, research by Opoku et al. (2024) and He et al. (2024) shows that high income inequality can limit the effectiveness of human capital in poverty reduction, even exacerbating social disparities and environmental impacts.

A strong connection is evident among researchers highlighting the link between human development and income distribution. Studies such as Khan et al. (2022) and Azmeh & Darwich (2025) broaden the perspective by incorporating the sustainability dimension, demonstrating that social inequality and poverty have direct implications for achieving the environmental and social targets of the SDGs. This linkage indicates a theoretical consistency in the contemporary literature that positions human development as the central axis of equitable poverty alleviation policies.

Meanwhile, in terms of keywords, human capital, poverty, inequality, and economic growth remain the most dominant terms, reflecting a research focus that emphasizes the interaction between human capital, economic growth, and welfare distribution. The literature also shows a shift toward a more contextual, multidimensional approach, where education policies, income redistribution, and inclusive growth are considered complementary strategies for reducing poverty (Attanasio et al., 2025; Moyo et al., 2022). Thus, these findings demonstrate that contemporary research no longer relies on classical economic theory but rather integrates empirical and policy approaches to achieve inclusive and sustainable development.

Co-Occurent Network

Mapping the relationships between keywords in the literature provides a comprehensive overview of the conceptual structure and primary focus of research in a particular field. Through co-occurrence network analysis, the interrelationships between concepts can be visualized, revealing dominant central themes and the relationships between topics that frequently appear together in scientific publications. The following figure displays the results of a keyword network analysis of research related to human capital, income inequality, poverty, and economic development. This visualization helps identify key clusters that shape the academic framework and also indicates the direction of research development in the context of sustainable development and social welfare.



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Figure 4. Co-Occurent Network
Source: RStudio

Co-occurrence network analysis shows that the keyword "poverty" emerged as the central node with the largest size, indicating the dominance of this theme in the literature related to development and welfare issues. This keyword is connected to several key concepts, particularly human capital, inequality, and economic growth, which form a large cluster in the conceptual map. The dominance of poverty in this network indicates that poverty remains a primary focus in global research and is often positioned as a variable related to various socio-economic dimensions.

The first cluster, centered on human capital and inequality, links poverty to education, income distribution, and the labor market. The association with keywords such as education, labor market, income inequality, and redistribution emphasizes the importance of human capital development in improving workforce quality and reducing social inequality. The literature in this cluster tends to emphasize that increasing access to education and equal opportunities can improve income distribution and ultimately reduce poverty levels. Thus, investing in human capital is seen as a long-term strategy for poverty alleviation.

Meanwhile, the second and third clusters provide a broader overview of the external and macroeconomic factors influencing poverty. The second cluster remains focused on poverty but is closely linked to issues of welfare, public transfers, the informal sector, the political economy, and even Covid-19, indicating that poverty is also studied from the perspective of social welfare and global dynamics. The third cluster highlights the role of economic growth with its linkages to foreign direct investment, remittances, human development, and economic impact. This demonstrates that economic growth, foreign investment, and remittances are viewed as important instruments in reducing poverty, particularly through human development and inclusive growth. Thus, the results of this analysis confirm that research on poverty is multidimensional, encompassing social aspects such as education and inequality, as well as macroeconomic aspects such as growth and investment.

Thematic Map

Thematic mapping is a bibliometric analysis approach useful for identifying the conceptual structure and level of development of research themes within a field of study. Through thematic maps, the relationship between relevance (centrality) and level of development (density) can be visualized, thus showing the relative position of various topics based on their role in the literature. The following figure displays the results of the thematic map analysis, illustrating how key themes such as human capital, poverty, and inequality occupy strategic positions as key drivers (motor theme) in research on economic development and social welfare. This visualization helps pinpoint the most central research focus while identifying areas of study that are still developing or are beginning to decline in relevance.

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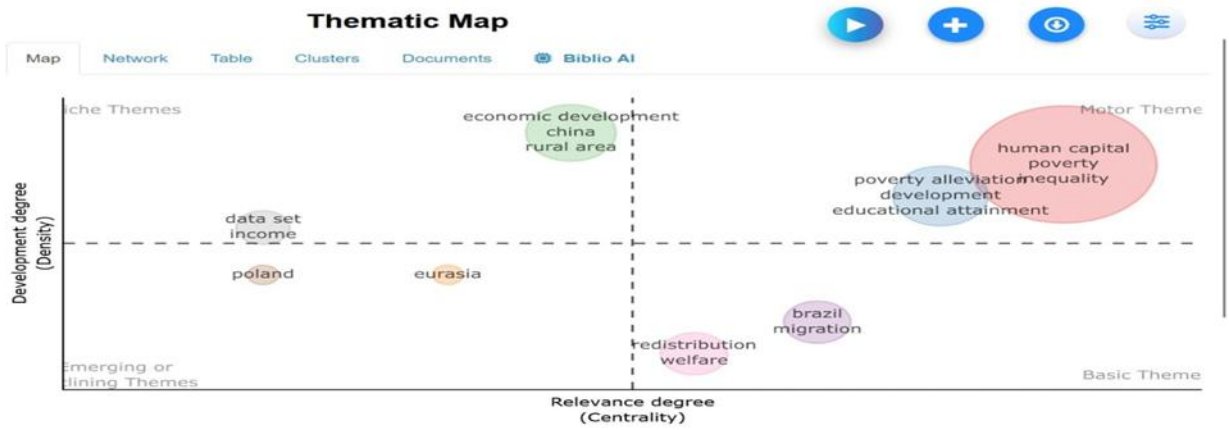


Figure 5. Thematic Map

Source: Rstudio

Thematic mapping results show differences in the position and weight of research themes based on the dimensions of relevance (centrality) and development (density). In the upper right quadrant, the major themes that emerge are human capital, poverty, inequality, poverty alleviation, development, and educational attainment. These themes are categorized as motor themes because they have a high level of centrality and density, thus acting as the main drivers in the literature on poverty. The dominance of these themes confirms that modern academic discourse places greater emphasis on the relationship between human capital, educational equity, and social inequality in influencing poverty levels.

On the bottom right, there are the themes of redistribution and welfare, which are classified as basic themes. These themes have a high degree of centrality but low density, meaning they are an important foundation in poverty research, but their conceptual development is still relatively limited. Meanwhile, keywords such as Brazil and migration also included in the same group, showing important relevance in the context of regional research and social phenomena, although it has not yet developed into a main theme.

In contrast, the upper left quadrant, representing niche themes, is filled with the keywords economic development, China, and rural area. These themes are highly specific and highly dense, yet less central to the general literature. This indicates a deep research focus on specific cases, such as rural development in China, which, while conceptually rich, remains limited to a regional scope. Finally, the lower left quadrant, representing emerging or declining themes, features the keywords Poland, Eurasia, dataset, and income. This position indicates that the topic is still in its early stages of development or is experiencing declining relevance in the research discourse on poverty.

Network Visualization

Network visualization using VOSviewer is widely used in bibliometric studies to illustrate relationships among elements within academic literature. In this study, network visualization is applied through a keyword co-occurrence network, which maps how frequently specific keywords appear together in the selected articles. This approach helps identify the main research themes and the connections between topics in the literature. The resulting network map represents keywords as nodes, where larger node sizes indicate higher frequency of occurrence, while links between nodes represent the strength of co-occurrence relationships. In addition, different cluster colors indicate thematic groupings that emerge from the data. Through this visualization, it becomes easier to understand the thematic structure of the research field and to identify dominant topics as well as potential directions for future research.

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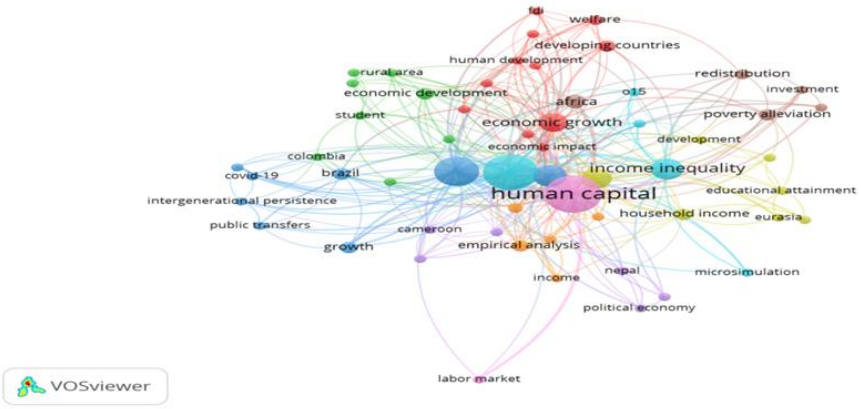


Figure 6. Network Visualization (VOSviewer)

Source: VOSviewer

The network visualization results using VOSviewer show nine main clusters with a total of 57 items and 336 relationships, illustrating the conceptual interconnections between research topics. The most dominant keywords are human capital, poverty, and income inequality, which emerge as the largest nodes with high relationship strength. This indicates that these three concepts are the focus of attention in the literature, while also demonstrating the academic consensus that poverty cannot be separated from the quality of human capital and income distribution.

The red cluster, centered on terms like economic growth, developing countries, foreign direct investment (FDI), and welfare, represents the close relationship between macroeconomic development and poverty issues. This cluster emphasizes that economic growth and foreign direct investment flows are considered important determinants of poverty reduction, although their effects are highly dependent on governance and redistribution policies. The association with terms like Africa and oil also demonstrates the prominent geographic and sectoral context within this study.

Meanwhile, the green cluster highlights the role of education and income distribution, with keywords such as educational attainment, income distribution, household income, and public spending. This indicates that the literature consistently positions education as a key instrument in strengthening human capital while simultaneously reducing income inequality. The interconnectedness of the terms in this cluster also demonstrates a multidimensional approach that combines public policy with socio-economic development.

The blue cluster highlights more contextual themes, such as COVID-19, Latin America, Brazil, and public transfers, which illustrate research responses to contemporary conditions. The focus on the COVID-19 pandemic demonstrates how recent literature assesses the impact of global shocks on poverty and inequality. Furthermore, the emergence of country-specific keywords highlights the presence of relevant case studies for understanding variations in poverty dynamics across the globe.

Finally, the purple and orange clusters contain terms such as labor market, empirical analysis, income, and socio-economic development, which emphasize methodological approaches and a focus on the labor market. The presence of terms like microsimulation and political economy demonstrates that research also uses both quantitative and political-economic approaches to analyze poverty. This confirms that the literature focuses not only on theory but also on the application of empirical models to test policy effectiveness.

Overall, this network map shows that the literature on poverty and inequality is structured

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into several interconnected thematic clusters, with key focus on human capital, income distribution, and economic development. The interconnectedness between these clusters demonstrates a multidisciplinary approach to understanding poverty, integrating social, economic, public policy, and global factors. Thus, this analysis underscores the direction of future research that is increasingly inclusive, cross-contextual, and responsive to global change.

CONCLUSION

Conclusion

This study draws its conclusions based on a Systematic Literature Review (SLR) of 50 selected articles published between 2010 and 2025 and indexed in the Scopus database. The findings indicate that human capital plays an important role in poverty alleviation; however, its effectiveness is strongly influenced by the level of income inequality within a society. Improvements in education, health, and skills tend to produce more significant and long-term impacts when access to these resources is distributed more equitably across different population groups. The bibliometric network analysis also shows that the dominant themes in the literature focus mainly on poverty, inequality, and human capital, while explicit references to Sustainable Development Goals (SDGs) are relatively limited. Nevertheless, these themes are closely related to the broader objectives of SDG 1 (No Poverty) and SDG 10 (Reduced Inequalities). Therefore, aligning human capital development with policies that promote more equitable income distribution is essential for supporting inclusive and sustainable socio-economic development.

Limitations

This study is limited by the scope and sources of the analyzed literature, which rely primarily on published journal articles and therefore do not necessarily reflect the entire body of available research, including unpublished studies or grey literature. Furthermore, this review did not conduct a meta-analysis to quantify the relationship between human capital, income inequality, and poverty reduction, which limits the ability to draw causal inferences. The study also focuses primarily on developing countries, so its conclusions may not be fully generalizable to other economic contexts.

Suggestion

Future research should incorporate quantitative meta-analyses to strengthen the empirical evidence on the relationship between human capital, income inequality, and poverty reduction. Researchers are also encouraged to explore context-specific factors, such as institutional quality, labor market structure, and social protection systems, that may mediate this relationship. Policymakers should design integrated programs that simultaneously enhance human capital and reduce inequality, ensuring that the benefits of education, health, and skills development are accessible to marginalized and vulnerable populations.

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