



## Human Development, Academic Achievement, and the Limits of Material Progress: An Empirical and Theological Study from Central Indonesia

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### ARTICLE INFO

*Keywords:* Human Development Index (HDI), Academic Achievement, Structural Equation Modeling (PLS-SEM), Education Policy and Development, Holistic Education

*Received :* 24, October

*Revised :* 26, November

*Accepted:* 28, December

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### ABSTRACT

This study examines how macro-level components of the Human Development Index (HDI): education, health, and economic factors, relate to junior high school students' academic achievement in Central Indonesia. A quantitative explanatory design was applied using district-level secondary data analyzed through Structural Equation Modeling with SmartPLS 4. The model assessed the effects of transportation and telecommunication infrastructure, household access to health facilities, household expenditure, and net participation rate on students' average National Examination (NEM) scores. The results show weak and statistically non-significant relationships ( $\beta = 0.011-0.243$ ;  $R^2 = 0.141$ ), indicating that macro-development indicators alone do not lead directly to higher learning outcomes. This article contributes by integrating empirical analysis with Christian educational reflection, emphasizing education as holistic human development grounded in Imago Dei and oriented toward shalom.

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## **INTRODUCTION**

Education is one of the most powerful instruments for national transformation. It shapes human capabilities, fosters innovation, and promotes social equity. In developing nations such as Indonesia, education has long been recognized as both a driver and a reflection of human development. The Human Development Index (HDI), which combines indicators of education, health, and income, has therefore become a critical benchmark for assessing a country's progress (United Nations Development Programme, 1990). However, despite Indonesia's steady increase in HDI over the past two decades, disparities in learning outcomes remain evident, particularly between regions with differing economic and infrastructural conditions. This paradox invites closer examination of whether improvements in human development indicators actually translate into stronger academic achievement.

Across the Indonesian archipelago, Central Indonesia occupies a unique position. Geographically and socio-economically, it bridges the relatively developed western provinces and the less developed eastern islands. Its cultural and religious diversity, spanning Christian, Muslim, Hindu, and indigenous traditions, makes it a microcosm of Indonesia's plural society. Educational statistics show that while Central Indonesia has improved in access to schooling, student performance, especially at the junior high school level (SMP), remains inconsistent. These conditions provide a fertile context for investigating how the macro-level dimensions of human development interact with micro-level educational outcomes.

Previous studies on education and development in Indonesia and other Asian countries have mainly concentrated on isolated variables such as household income, teacher quality, or school infrastructure. Although such research contributes valuable insights, it seldom examines the combined and systemic influence of HDI components on student performance. Internationally, scholars have debated the effectiveness of HDI as a predictor of educational quality, yet empirical findings remain inconclusive. Some studies report significant correlations between development indicators and literacy or enrolment rates, while others find that broader social, cultural, and moral factors moderate or even outweigh these relationships. This inconsistency suggests the need for an integrated, multi-variable approach that can capture the complex interplay between development, education, and human flourishing.

From a methodological standpoint, most prior analyses rely on linear regression or descriptive comparisons that cannot fully represent the indirect or mediating relationships among variables. Structural Equation Modeling (SEM), particularly the Partial Least Squares (PLS) approach, offers a more flexible and predictive framework for analyzing such multidimensional data. By applying SEM-PLS to district-level data, this study is able to test not only the direct effects of HDI components on academic achievement but also their combined explanatory power. This approach contributes to educational research in Indonesia by introducing a more holistic statistical model that aligns with global standards in quantitative analysis.

Beyond the empirical and methodological rationale, this research also engages with the theological dimension of education. In many parts of Central Indonesia, Christian schools and communities play a vital role in promoting educational access and character formation. Within the Christian worldview, education is understood not merely as knowledge acquisition but as participation in God's creative and redemptive work. The theological principle of *Imago Dei* affirms that every learner bears the image of God and possesses inherent dignity and potential. Likewise, the biblical vision of shalom envisions education as a process that nurtures wholeness, justice, and peace within individuals and communities. These convictions call educators and policymakers to view learning not only as a means to economic advancement but as a moral vocation directed toward the flourishing of all people.

This integration of empirical inquiry and theological reflection sets the present study apart from most quantitative research on development and education. While maintaining rigorous statistical analysis, the study interprets its findings through a Christian lens that values the holistic formation of persons. In doing so, it seeks to contribute to an emerging discourse in Asia that bridges social science and theology, offering both data-driven and faith-informed insights into educational policy and practice.

Accordingly, this study addresses the following central question: To what extent do the macro-level components of the Human Development Index, education, health, and economic dimensions, influence the academic achievement of junior high school students in Central Indonesia? To operationalize this inquiry, four exogenous variables representing HDI dimensions are analyzed:

- X<sub>1</sub>: Transportation and Telecommunication Infrastructure
- X<sub>2</sub>: Household Access to Health Facilities
- X<sub>3</sub>: Household Expenditure
- X<sub>4</sub>: Net Participation Rate (APN) in junior high school

The endogenous variable (Y) is the average National Examination (NEM) score of junior high school students. By examining these variables simultaneously through SEM-PLS, the study aims to quantify their relationships and assess the overall explanatory power of the HDI model in predicting student achievement.

The study's objectives are threefold:

1. To evaluate the direct and combined effects of HDI components on junior high school academic performance in Central Indonesia;
2. To interpret the empirical results within the broader theoretical framework of human development and Christian educational thought; and
3. To propose policy recommendations and theological insights that promote a more holistic and equitable vision of education.

The findings are expected to enrich both developmental theory and Christian educational philosophy. On one hand, they contribute empirical evidence to the ongoing debate about the efficacy of HDI as an explanatory framework for educational outcomes. On the other, they articulate a theological understanding of education that transcends material metrics, emphasizing moral formation, spiritual growth, and social responsibility as essential dimensions of human development.

In sum, this research seeks to demonstrate that the relationship between human development and education is more than a statistical correlation, it is a moral partnership grounded in the dignity of persons and the call to stewardship over creation. Through the lens of both data and doctrine, the study invites scholars, policymakers, and educators to envision education not merely as an engine of economic growth, but as a means of redemptive transformation toward a just and flourishing society.

## **LITERATURE REVIEW**

### ***Education and Human Development***

Education and human development have long been recognized as interdependent processes. The United Nations Development Programme (UNDP) defines human development as the expansion of people's capabilities to live the lives they value. This concept underlies the Human Development Index (HDI), which synthesizes three key dimensions: education, health, and income into a composite measure of national well-being (United Nations Development Programme, 2024). Education, in this model, serves both as a means and an end of development: it equips individuals with the skills to improve their quality of life and embodies the intrinsic value of knowledge and empowerment.

In the Indonesian context, educational development is integral to the nation's long-term plan for sustainable growth and social cohesion. Despite continuous increases in HDI since the early 2000s, learning outcomes remain uneven across provinces, revealing the persistent gap between access and quality. This discrepancy raises a critical question central to this study: To what extent do macro-level indicators of development (e.g., income, health, infrastructure) actually influence student learning outcomes at the micro level?

### ***The Human Capital and Capability Perspectives***

Classical development economics has traditionally interpreted education through the human capital theory, pioneered by Schultz (Schultz, 1961) and Becker (Becker, 1993a). This theory views education as an investment in people that increases productivity, income, and overall economic growth. The more educated a population, the greater its capacity to contribute to national development. Within this framework, education serves as both a private and public good, producing benefits that extend beyond the individual learner to society at large.

However, the human capital model has been critiqued for its instrumental focus, reducing education to a tool for economic efficiency rather than a process of holistic formation. In response, Amartya Sen (Sen, 1999) introduced the capability approach, redefining development as the expansion of human freedoms and opportunities. Education, in Sen's view, should enable individuals to "do and be" what they value. This approach moves beyond economic returns, highlighting education's role in promoting agency, participation, and social justice.

For the present study, the capability perspective provides a critical lens for interpreting HDI variables. While household expenditure and infrastructure represent material resources (inputs), the capability approach reminds us that these inputs only contribute to genuine human development when they empower learners to achieve meaningful educational outcomes. Thus, the HDI components, transportation, health, economic well-being, and participation, are not ends in themselves but enablers of human capability and flourishing.

### ***Structural Models Linking HDI and Educational Achievement***

Empirical studies linking HDI to education have produced mixed findings. Some research (e.g. Ali, I., & Son, 2007; Ranis, G., & Stewart, 2012) demonstrates strong correlations between human development indicators and educational attainment, suggesting that improvements in income, health, and infrastructure foster better learning conditions. Other studies, however, have found that macro-level development does not automatically lead to improved student performance, especially when educational quality, teacher competence, or governance remain weak (Anand, S., & Ravallion, 1993; Hanushek, 2013b).

Recent work using Structural Equation Modeling (SEM) has emphasized the interdependence of HDI dimensions, showing that education, health, and economics often influence each other in complex ways. For example, access to health services can indirectly affect learning outcomes through improved attendance and cognitive readiness, while household income influences educational investment decisions. The use of PLS-SEM in this study enables simultaneous testing of these interrelationships, offering a nuanced understanding of how different aspects of human development shape academic achievement.

### ***The Indonesian Educational Context***

Indonesia's commitment to equitable education is anchored in its national constitution and in the 2015–2045 Vision of Human Development. However, regional disparities remain pronounced. Provinces in Central Indonesia, such as Bali, West Nusa Tenggara, and Central Kalimantan exhibit moderate HDI scores but varying educational outcomes. The junior high school level (SMP) is particularly strategic, as it marks the transition from basic to secondary education and determines students' readiness for higher learning or vocational pathways.

The government's efforts to expand access through programs like Wajib Belajar 12 Tahun (12-Year Compulsory Education) have improved enrollment, yet learning inequality persists. Factors such as teacher quality, school resources, and socio-cultural dynamics often mediate the impact of national development initiatives. Consequently, this study's focus on district-level HDI indicators provides empirical insight into the structural determinants of student performance in a complex and multicultural national landscape.

### ***Christian Educational Philosophy: Imago Dei and the Purpose of Learning***

Within the framework of Christian educational thought, education is fundamentally a spiritual and moral enterprise rooted in the biblical view of the human person. The doctrine of Imago Dei (Genesis 1:26–27) affirms that every individual is created in the image of God, endowed with dignity, reason, creativity, and moral agency. Education, therefore, serves not only to transmit knowledge but to nurture the divine image in every learner, cultivating wisdom, character, and compassion. This theological anthropology provides a counterbalance to the utilitarian tendencies of human capital theory. While economic productivity remains valuable, Christian education insists that human worth transcends material output. Learning must aim at the restoration of human wholeness and the reconciliation of persons with God, others, and creation. In this sense, education is both a process of intellectual enlightenment and a journey of moral and spiritual transformation.

### ***The Theology of Shalom and Holistic Human Flourishing***

The biblical concept of shalom, a state of holistic peace and harmony, offers a rich theological vision of human development. As articulated by theologians such as Cornelius Plantinga (Plantinga Jr., 1996) and Nicholas Wolterstorff (Wolterstorff, 2004), shalom encompasses the flourishing of individuals and communities in right relationship with God and creation. Within education, shalom calls for systems that promote justice, inclusion, and well-being, not merely cognitive achievement (Volf, 1996). Applied to this study, shalom implies that while HDI captures important external conditions of well-being (health, income, infrastructure), true educational success arises when these conditions serve the deeper purpose of nurturing persons in community. The limited explanatory power of HDI variables found in this research underscores this principle: development must be understood as formation not merely growth in resources, but transformation in values, relationships, and wisdom.

### ***Redemptive Education and the Role of Faith-Based Schools***

In the Christian tradition, education is also viewed as redemptive participating in God's work of renewing creation and restoring broken systems. Redemptive education seeks to heal the fractures of ignorance, injustice, and inequality by integrating truth with love and learning with service. Faith-based schools in Indonesia, particularly Christian institutions, embody this mission by combining academic excellence with character formation and community engagement. From this perspective, the weak correlation between HDI and student achievement observed in this study does not signify failure but rather points to the need for redemptive transformation within educational systems. Economic growth alone cannot redeem the human condition; it must be accompanied by spiritual and ethical renewal. Christian education thus offers a prophetic vision that challenges the dominance of material development paradigms and advocates for education as the means of restoring the image of God in every learner.

### ***Conceptual Framework of the Study***

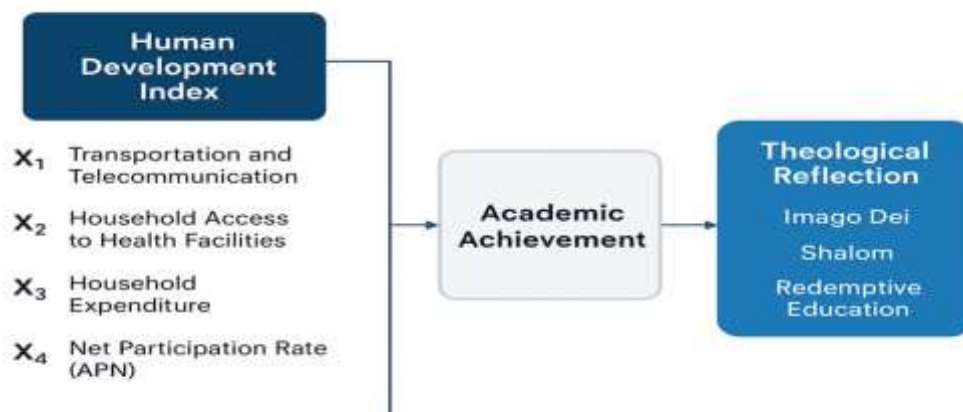
Drawing from the foregoing literature, the study integrates three complementary perspectives:

1. The Human Capital and Capability Framework. Education contributes to development by expanding human freedom and productivity.
2. Empirical HDI Model. Macro-level variables (infrastructure, health, expenditure, participation) serve as measurable indicators of regional human development.
3. Theological Vision of Education. Learning as the nurturing of Imago Dei and the pursuit of shalom, emphasizing spiritual, moral, and relational flourishing.

These frameworks converge in the study's conceptual model, which hypothesizes that HDI dimensions positively influence academic achievement, but the strength of these relationships is moderated by socio-cultural and moral factors that lie beyond purely economic explanations. Thus, the quantitative analysis explores what the data reveal, while the theological reflection interprets why those patterns matter for human development and educational purpose.

The literature reviewed reveals both conceptual and empirical gaps. While the HDI remains a widely used measure of human progress, its relationship with educational quality, particularly in developing and multicultural contexts remains ambiguous. Moreover, few studies integrate theological perspectives that address the moral and spiritual foundations of development. This research fills these gaps by employing a robust SEM approach to examine the determinants of academic achievement in Central Indonesia and by offering a Christian theological interpretation of education as a means of holistic transformation.

From there, you can explain and emphasize gaps or differences between your research and previous research. The second way is to combine theory with related literature and explain each theory in one sub-chapter.



**Figure 1. Literature Review and Theoretical Framework**

## **METHODOLOGY**

This study employed a quantitative explanatory research design using Structural Equation Modeling (SEM) through Partial Least Squares (PLS) implemented in SmartPLS 4 (Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2002; Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, 2019). The design was selected for its ability to analyze complex relationships among multiple latent constructs where data distributions may deviate from normality. It allowed the researcher to test both the direct and indirect influences of macro-level Human Development Index (HDI) variables on the academic achievement of junior high school students. The research was guided by a theological interpretive framework that perceives knowledge and analysis as forms of faithful stewardship, aligning with the biblical affirmation that “whatever you do, do it all for the glory of God” (1 Corinthians 10:31). In this sense, statistical modeling was not viewed as a purely technical exercise but as an act of disciplined inquiry in service of truth.

The study was conducted within the context of Central Indonesia, comprising provinces such as Central and West Kalimantan, South Sulawesi, Bali, West Nusa Tenggara (NTB), and East Nusa Tenggara (NTT). These regions exhibit a diverse socioeconomic landscape, representing both developed and developing districts with varying educational infrastructure and cultural traditions. Christian education plays a significant role in many of these provinces, especially through faith-based schools that emphasize character formation, service, and the dignity of every learner as the *Imago Dei*, the image of God (Genesis 1:27). This context provided a meaningful setting for examining how macro indicators of human development interact with the moral and spiritual purposes of education.

The research utilized secondary data drawn from three official sources: The World Bank’s INDODAPOER dataset (World Bank, 2023), the Badan Pusat Statistik (BPS) (Badan Pusat Statistik, 2023a, 2023b), and the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) of Indonesia (Pusat Data dan Teknologi Informasi (Pusdatin), 2023; Pusat Data dan Teknologi Informasi (Pusdatin) Kemendikbudristek, 2024). The variables were operationalized as follows:

X<sub>1</sub>: Transportation and Telecommunication Infrastructure

X<sub>2</sub>: Household Access to Health Facilities

X<sub>3</sub>: Household Expenditure

X<sub>4</sub>: Net Participation Rate (APN)

Y: Average National Examination (NEM) Score

These indicators collectively represent the education, health, and economic dimensions of the HDI, while Y captures academic achievement outcomes. Drawing on human capital theory (Becker, 1993b) and Sen’s capability approach (Sen, 1999), the study conceptualized education as both an investment and a means of expanding human freedom. Theologically, this dual framework reflects the biblical principle of stewardship (*oikonomia*) the responsible use of God-given resources to promote human flourishing (Genesis 2:15).

Data analysis followed a two-step PLS-SEM procedure encompassing measurement and structural model evaluation. The measurement model tested the reliability and validity of each construct: Cronbach's alpha ( $\alpha > 0.70$ ), composite reliability ( $CR > 0.80$ ), and Average Variance Extracted ( $AVE > 0.50$ ) ensured convergent validity, while discriminant validity was confirmed through the Fornell-Larcker criterion and HTMT ratio ( $< 0.85$ ). The structural model assessed path coefficients ( $\beta$ ), significance levels (via 5,000-sample bootstrapping), and model fit indices including  $R^2$  (0.141),  $Q^2$  ( $> 0$ ),  $f^2$ , VIF ( $< 5.0$ ), and SRMR ( $< 0.08$ ). These indicators established that while the model's explanatory power was moderate, it provided a robust empirical basis for interpreting the relationship between human development and educational achievement. The process itself exemplified the biblical call to "test everything; hold fast what is good" (1 Thessalonians 5:21), affirming the integrity of research as a moral vocation.

Ethical standards were maintained throughout the study in accordance with the American Educational Research Association (The American Educational Research Association (AERA), 2011) and World Bank open-data guidelines (World Bank, 2012). As this study used aggregated, publicly available data, no human participants were directly involved, and formal ethical clearance was not required. Nevertheless, principles of integrity, transparency, justice, and respect for human dignity were rigorously upheld. The ethical framework drew inspiration from Micah 6:8 "to act justly, to love mercy, and to walk humbly with your God" reminding the researcher that ethical inquiry extends beyond compliance to moral responsibility. The data were used solely for academic purposes, ensuring honesty in reporting and stewardship in analysis.

Finally, the theological reflection framework guided the interpretation of empirical results. Rooted in biblical anthropology, the concept of Imago Dei affirms that every learner possesses inherent value and creative potential. The notion of shalom (peace, harmony, wholeness) provided a holistic vision of education as human flourishing, where learning fosters both knowledge and virtue. The study also drew upon the concept of redemptive education, viewing teaching and research as participation in God's mission of restoration and renewal (Romans 12:2). Thus, while statistical analysis explained how HDI factors relate to academic achievement, theological reflection illuminated why these relationships matter, revealing education as a redemptive vocation that integrates truth, justice, and compassion in the service of God's world.

## RESEARCH RESULT

### *Overview of the Analytical Model*

The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4 to analyze the relationships between four exogenous constructs representing the Human Development Index (HDI) components, Transportation and Telecommunication ( $X_1$ ), Household Access to Health Facilities ( $X_2$ ), Household Expenditure ( $X_3$ ), and Net Participation Rate ( $X_4$ ), and one endogenous construct, Academic Achievement ( $Y$ ), measured by the average National Examination (NEM) scores of junior high school students in Central Indonesia.

This model was designed to assess not only direct relationships but also the collective explanatory power of macro-development indicators in predicting educational performance. The inclusion of theological reflection (Imago Dei, shalom, and redemptive education) provides an interpretive framework that moves beyond numerical correlation to a moral and spiritual understanding of education and human development.

### **Measurement Model Assessment**

The measurement model (outer model) was evaluated in accordance with Hair et al. (2022) using four primary criteria: indicator reliability, internal consistency, convergent validity, and discriminant validity.

1. Indicator reliability: All observed variables demonstrated loadings above 0.70, confirming satisfactory individual reliability.
2. Internal consistency: Composite reliability (CR) values ranged from 0.823 to 0.911, exceeding the recommended threshold of 0.70.
3. Convergent validity: Average Variance Extracted (AVE) values were above 0.50 for all constructs, indicating adequate shared variance among indicators.
4. Discriminant validity: The Fornell-Larcker criterion and Heterotrait-Monotrait ratio (HTMT) values were below 0.85, confirming construct distinctiveness.

These results validated the quality of the measurement model and ensured that the latent variables accurately represented the intended dimensions of the HDI and educational performance.

### **Structural Model Results**

The structural model (inner model) tested the hypothesized paths between HDI components and academic achievement. The bootstrapping procedure (5,000 samples) yielded the following standardized path coefficients ( $\beta$ ), t-values, and significance levels (p-values):

**Table 1. Structural Model Results**

| Path                                                                  | Coefficient ( $\beta$ ) | t-value | p-value | Interpretation                 |
|-----------------------------------------------------------------------|-------------------------|---------|---------|--------------------------------|
| X <sub>1</sub> → Y (Transportation & Telecommunication → Achievement) | 0.011                   | 0.085   | 0.932   | Not significant                |
| X <sub>2</sub> → Y (Health Access → Achievement)                      | 0.243                   | 1.511   | 0.132   | Weak positive, not significant |
| X <sub>3</sub> → Y (Household Expenditure → Achievement)              | -0.033                  | 0.212   | 0.832   | Not significant                |
| X <sub>4</sub> → Y (Net Participation Rate → Achievement)             | 0.118                   | 0.489   | 0.625   | Not significant                |

The coefficient of determination ( $R^2 = 0.141$ ) indicates that approximately 14.1% of the variance in academic achievement is explained by these four HDI components. The remaining variance is influenced by other factors not captured in the model likely school-level, cultural, and psychological variables. While the model's explanatory power is modest, it provides meaningful insight: macro-level development alone is insufficient to guarantee improved learning outcomes. This aligns with emerging global evidence that education quality depends on more than material development, it requires holistic formation encompassing social, cultural, and spiritual dimensions.

#### ***Limited Predictive Power of HDI Indicators***

The insignificance of most HDI components in predicting academic performance highlights a recurring issue in development studies: economic and infrastructural growth do not automatically yield educational improvement. The weak path from transportation and telecommunication ( $\beta = 0.011$ ) suggests that while infrastructure facilitates access, it does not necessarily enhance cognitive outcomes or motivation to learn. Similarly, household expenditure ( $\beta = -0.033$ ) showed no meaningful effect, implying that economic prosperity may not translate directly into effective learning environments. These findings resonate with Hanushek (Hanushek, 2013a) and Glewwe et al. (Glewwe, P., Hanushek, E. A., Humpage, S., & Ravina, 2011), who argue that beyond resource inputs, factors such as teacher quality, learning culture, and governance exert stronger influence on achievement. In the Indonesian context, this indicates that development policies must integrate economic and moral investment, ensuring that growth contributes to human formation, not merely financial progress.

#### ***Health Access as a Modest Positive Factor***

Among the predictors, household access to health facilities ( $\beta = 0.243$ ) showed the highest (though still insignificant) positive coefficient. This suggests that student health and well-being play a modest role in academic success. Better health services likely improve attendance, concentration, and emotional stability, important yet insufficient conditions for high academic performance. This finding supports the World Bank's human capital perspective, emphasizing the need to integrate education and health policy for sustainable development.

#### ***Educational Participation and Systemic Factors***

The path from Net Participation Rate ( $\beta = 0.118$ ) also lacked statistical significance, suggesting that mere enrollment does not ensure learning quality. This aligns with UNESCO's call for a transition "from schooling to learning." It highlights that quantitative expansion without qualitative transformation produces limited educational gains. The implication for Indonesian policymakers is that increasing participation must be accompanied by pedagogical innovation and value-based education.

## DISCUSSION

### *Theological Interpretation of Findings Imago Dei and Human Dignity Beyond Material Metrics*

From a theological standpoint, the weak relationship between HDI variables and student achievement underscores the biblical principle that human dignity and potential are not reducible to material indicators. According to the doctrine of Imago Dei (Genesis 1:26–27), every learner possesses inherent worth and creative capacity that cannot be fully measured by economic or infrastructural data. This means that while development initiatives are essential, education must also nurture the moral and spiritual dimensions of learners, helping them to discover their God-given purpose and participate in the flourishing of creation. When education honors Imago Dei, it restores dignity and meaning beyond statistical performance.

### *Shalom as the Vision of Holistic Development*

The biblical vision of shalom offers a broader understanding of what “achievement” entails. Shalom encompasses right relationships, with God, others, and creation, manifested through justice, harmony, and flourishing. The limited statistical influence of HDI factors may thus be read as a theological reminder that true development arises from relational and moral wholeness, not material abundance alone. In educational terms, shalom calls for classrooms that cultivate empathy, community, and stewardship, values that empower students to use their knowledge for the common good. This interpretation transforms the study’s statistical modesty into a moral insight: holistic peace and educational quality must be pursued together.

### *Redemptive Education as Transformative Response*

Christian educational philosophy interprets learning as a redemptive act, a participation in God’s work of renewing minds and societies (Romans 12:2). The findings that HDI variables account for only 14.1% of academic variance suggest that human progress cannot be achieved solely through policy or infrastructure. Instead, education must be a redemptive process that restores integrity, heals injustice, and fosters critical moral consciousness. Faith-based schools in Central Indonesia, by integrating spiritual and academic formation, exemplify this redemptive mission. They demonstrate that when education is guided by faith, love, and service, it becomes an instrument of social healing, achieving outcomes that no development index can fully quantify.

### *Reframing Development Goals*

The findings urge a re-evaluation of how educational success is defined in national development agendas. Policymakers should integrate moral and spiritual dimensions of learning into broader human development frameworks, ensuring that HDI metrics are complemented by indicators of well-being, ethical growth, and civic responsibility.

### ***Strengthening Holistic Schooling Practices***

Educational leaders in Central Indonesia are encouraged to promote curricula that integrate cognitive excellence with character formation and faith development. Teacher training programs should emphasize both professional competence and moral vocation, reflecting the belief that educators are stewards of human potential.

### ***Partnership Between Faith-Based and Public Institutions***

The role of Christian schools in advancing holistic education provides a valuable model for intersectoral collaboration. Partnerships between faith-based and public institutions can enhance policy innovation by embedding values of stewardship, justice, and compassion into development programs.

### ***Synthesis: Integrating Empirical and Theological Insight***

When viewed together, the statistical results and theological reflections reveal a unified truth: development and education are inseparable but incomplete without moral transformation. The empirical data point to the limits of material progress, while theology illuminates the transcendent dimension of learning as participation in divine purpose.

In other words, education fulfills its true mission when it serves as both a human right and a spiritual calling, empowering learners not merely to achieve, but to become agents of shalom in their communities. This integration of quantitative analysis and theological vision exemplifies a holistic model of Christian scholarship that bridges the sciences and the faith tradition in the pursuit of human flourishing.

The results of this study demonstrate that HDI variables exert weak and statistically insignificant effects on junior high school students' academic achievement in Central Indonesia. However, when interpreted through a theological lens, these findings reveal profound insights: that education's deepest purpose lies not in economic return, but in the cultivation of persons who reflect the image of God and contribute to the realization of shalom. This synthesis of empirical and theological perspectives reinforces the need for education systems, especially in developing and plural societies to pursue both measurable excellence and moral integrity as inseparable dimensions of true human development.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study analyzed the relationship between macro-level Human Development Index (HDI) dimensions—education, health, and economic indicators—and junior high school students' academic achievement in Central Indonesia. Using a quantitative explanatory design and PLS-SEM (SmartPLS 4), four predictors (Transportation and Telecommunication, Household Access to Health Facilities, Household Expenditure, and Net Participation Rate) were tested against average National Examination (NEM) scores. The results showed weak and non-significant effects ( $\beta = 0.011-0.243$ ;  $R^2 = 0.141$ ), indicating that HDI factors explain only 14.1% of achievement variance. Household access to health facilities had the strongest, though modest, association, while other indicators showed minimal impact. Overall, the findings suggest that macro-development conditions are necessary but insufficient, highlighting the importance of

educational quality, social context, and moral formation in supporting learning outcomes.

This study strengthens the capability approach proposed by Amartya Sen (1999), which understands development not as the accumulation of material resources or human capital, but as the expansion of real freedoms and capabilities that enable individuals to live meaningful lives. The weak relationship between HDI indicators and academic achievement challenges the reductionist use of HDI as a sole measure of progress and highlights the limits of economic and infrastructural explanations of educational outcomes. These findings support a multidimensional educational paradigm that integrates economic, cultural, moral, and spiritual dimensions, aligning with contemporary shifts toward learning for life, agency, and well-being. Methodologically, the use of PLS-SEM demonstrates the value of modeling complex development-education relationships in emerging contexts, while also advancing the integration of empirical analysis with broader normative and theological interpretations of human development.

This theological reflection affirms that education's ultimate purpose transcends measurable outcomes and is rooted in the biblical understanding that every human being is created in the image of God (*Imago Dei*) (Genesis 1:27). The limited influence of HDI indicators on academic achievement underscores that human flourishing depends not only on material conditions but also on moral, relational, and spiritual formation. Academic achievement is thus understood as an expression of divine image-bearing, reflecting human creativity, responsibility, and vocation when oriented toward justice and service. Framed by the biblical vision of *shalom* holistic peace grounded in right relationships education is called to restore dignity, foster inclusion, and nurture wisdom and compassion. In this light, education becomes a redemptive service, participating in God's renewing work by forming persons who embody integrity, justice, and hope within their communities.

The empirical findings yield important implications for policymakers, educators, and faith-based institutions working to improve educational outcomes in Indonesia and similar developing contexts.

First, governments should broaden the scope of educational policy beyond economic and infrastructural development. While HDI investments remain vital, they must be accompanied by initiatives that strengthen teacher quality, learning culture, and moral education. Effective policy should integrate development planning with educational ethics, prioritizing human dignity, justice, and stewardship in curriculum and assessment.

Second, health and education sectors must be more closely aligned. The study's indication that health access positively influences academic achievement supports policies that link nutrition, physical well-being, and emotional health to learning outcomes. Programs providing school-based health services, counseling, and hygiene education can enhance students' readiness to learn and sustain concentration in class.

Third, educational participation must translate into learning quality. Expanding access without improving pedagogy perpetuates inequality. The Ministry of Education and regional governments should implement professional development programs emphasizing student-centered and values-based instruction. Teachers should be trained not only as knowledge transmitters but as mentors of character and faith, reflecting the moral vocation of education.

Fourth, Christian educational institutions can make a distinctive contribution by modeling value-integrated learning. Their holistic approach, which combines academic excellence with character formation and community engagement, provides an effective model for moral education within pluralistic societies. By cultivating empathy, service, and intercultural dialogue, Christian schools can help bridge religious divides and contribute to national harmony. This approach aligns with Indonesia's national vision of *moderasi beragama* (religious moderation), offering practical examples of how faith can foster peace and coexistence.

Fifth, policy dialogue between faith-based and public sectors should be strengthened. Shared initiatives, such as teacher exchanges, community service projects, or collaborative curriculum design, can unite moral and technical dimensions of education. When educational policy reflects both scientific evidence and ethical conviction, it becomes an instrument of justice and social renewal.

In sum, educational transformation in Indonesia requires a shift from technocratic planning to transformative human development, where the goal is not only smarter citizens but also more compassionate, responsible, and spiritually grounded individuals.

## **ADVANCED RESEARCH**

This study is limited by its reliance on district-level secondary data and macro HDI indicators, which do not capture micro-level factors such as teacher quality, pedagogical practices, or family context. Future research should use longitudinal data, mixed methods, and qualitative variables to better understand learning processes and educational outcomes.

## **ACKNOWLEDGMENT**

We would like to thank the Doctoral Study Program in Christian Religious Education, Indonesian Christian University for administrative support in the form of primary data used for this research.

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