

Research Article

Influence of Zis Funds, Education, Health and Entrepreneurship on the Achievement of Sustainable Development Goal 1

Satria^{*}, Muliati, Latifah Sukmawati Yuniar, Andi Chairil Furqan

Department of Accounting, Universitas Tadulako, Palu, Sulawesi Tengah, 94148, Indonesia

^{*}Corresponding Author: satriaasia@gmail.com

ABSTRACT

This study investigates the influence of Zakat, Infaq, and Sadaqah (ZIS), education, health, and entrepreneurship on poverty alleviation in Indonesia, particularly in supporting the achievement of Sustainable Development Goal 1 (No Poverty). A quantitative approach was employed using secondary data from the National Amil Zakat Agency of the Republic of Indonesia (BAZNAS RI) and the Central Statistics Agency (BPS) for the 2021–2024 period. The data were analyzed through multiple linear regression with a panel data model. The results indicate that ZIS acceptance has a significant negative relationship with poverty levels, implying that higher ZIS collection and distribution can effectively contribute to poverty reduction. Meanwhile, school participation rates as an indicator of educational attainment show no significant impact on poverty reduction, suggesting that improvements in education quality and relevance are still needed to enhance its economic effect. Life expectancy, representing health indicators, demonstrates a significant negative influence, highlighting the essential role of better healthcare access and quality in reducing poverty. On the other hand, entrepreneurship, measured by the number of Micro and Small Enterprises (MSEs), exhibits a significant positive relationship with poverty, which may reflect challenges such as limited access to financing, low business literacy, and weak competitiveness among small entrepreneurs. These findings emphasize the importance of strengthening ZIS management, enhancing health services, and adopting sustainable strategies in education and entrepreneurship development. This study provides important insights for policymakers, zakat institutions, and communities in formulating effective strategies to accelerate poverty alleviation and achieve Sustainable Development Goal 1 in Indonesia.

Keywords: Life Expectancy Rate; Micro and Small Enterprises; School Participation Rate; SDG 1; Zakat; Infaq/Alms

1. INTRODUCTION

The eradication of poverty remains one of the most persistent global challenges in the twenty-first century. Sustainable Development Goal 1 (SDG 1) No Poverty, emphasizes the necessity of eliminating extreme poverty in all its forms by 2030 (United Nations, 2015). Despite substantial progress achieved through various social and economic initiatives, poverty continues to manifest in multidimensional forms that extend beyond income deprivation, encompassing limitations in education, health, and access to productive resources (Alkire & Santos, 2014). In Indonesia, although the poverty rate declined to 9.03 percent in March 2024, the persistence of inequality and regional disparities underscores structural fragility within the socio-economic system (BPS, 2024). The uneven cost of living, differentiated access to education and healthcare, and vulnerability to external shocks reveal that poverty is not merely an economic issue but a complex social phenomenon that requires multidimensional policy interventions (Alkire et al., 2023).

Within the Indonesian context, Islamic social finance, particularly Zakat, Infaq, and Sadaqah (ZIS), serves as an essential instrument in addressing poverty and promoting equitable economic development. ZIS functions not only as a religious obligation but also as a redistributive and empowerment mechanism that strengthens social cohesion and financial inclusion (Mulyati et al., 2022; Sarif et al., 2024). The National Amil Zakat Agency (BAZNAS) reported a consistent increase in ZIS collection between 2020 and 2024, reflecting rising public trust and participation in Islamic philanthropic institutions (BAZNAS, 2024). Empirical evidence suggests that effective ZIS management contributes to poverty alleviation by providing access to capital for micro-enterprises and supporting sustainable livelihoods (Al-Daihani et al., 2025). Nevertheless, the extent of ZIS's impact on achieving SDG 1 remains uneven due to variations in governance, accountability, and integration with national development strategies (Muliati et al., 2020).

Education has long been recognized as a cornerstone of human capital formation and an essential pathway to poverty reduction. According to Human Capital Theory, investment in education enhances productivity, employability, and long-term economic growth (Becker, 1993). In Indonesia, improvements in school participation have not been accompanied by parallel gains in educational quality, particularly in rural and disadvantaged regions (Mulyani et al., 2025). This imbalance constrains the transformative potential of education in promoting social mobility and reducing intergenerational poverty (Anowor et al., 2023). Consequently, education policies must go beyond expanding access and focus on improving learning outcomes, digital literacy, and alignment between education and labor-market needs to contribute effectively to SDG 1 (Hasan et al., 2024; López-Muñoz et al., 2023).

Health is another crucial determinant of economic resilience and poverty alleviation. Poor health reduces labor capacity, increases household dependency ratios, and exacerbates financial vulnerability, particularly among low-income populations (Immurana et al., 2023). Life expectancy, access to quality healthcare, and public health investment are therefore central to sustainable development and human well-being (Chakroun, 2024; Matenda & Sibanda, 2023). Although Indonesia has achieved notable progress in public health indicators, such as declining maternal and infant mortality, unequal access between urban and remote areas continues to hinder inclusive development. The interconnection between health and poverty illustrates the need for integrated strategies that combine healthcare improvement with economic empowerment to ensure sustainable poverty reduction (Nguyen et al., 2024).

Furthermore, entrepreneurship has increasingly been recognized as a dynamic engine for inclusive growth and poverty alleviation. Entrepreneurial activities foster innovation, create employment, and expand income opportunities, particularly in developing economies (Nayak et al., 2025; Pacheco et al., 2025). In Indonesia, micro, small, and medium-sized enterprises (MSMEs) account for over 60 percent of total employment, highlighting their strategic role in economic resilience (Tambunan, 2019). However, systemic challenges such as limited access to credit, inadequate entrepreneurial education, and digital skill gaps reduce their contribution to sustainable poverty alleviation (Matenda & Sibanda, 2023). Addressing these constraints through targeted training, inclusive financing, and digital transformation is essential for maximizing entrepreneurship's role in achieving SDG 1. Despite the growing body of literature examining the relationships between ZIS, education, health, and entrepreneurship with poverty reduction, existing research remains fragmented and largely sectoral. Previous studies have often focused on individual factors in isolation, neglecting the interdependencies among these socio-economic dimensions (Kailani & Slama, 2020; Mulyati et al., 2022; Sarif et al., 2024).

This study fills that gap by integrating these four variables within a unified empirical framework to evaluate their collective influence on poverty alleviation in Indonesia. The findings indicate that ZIS and health exert significant negative effects on poverty rates, while education and entrepreneurship show more complex patterns of association. The novelty of this research lies in its simultaneous integration of Islamic social finance and human development perspectives in explaining SDG 1 attainment. However, this study also recognizes its limitations, particularly the reliance on secondary data and the exclusion of qualitative behavioral factors. Future studies are encouraged to adopt a mixed-method approach to explore deeper causal mechanisms linking social finance, human capital, and entrepreneurship to poverty reduction.

2. LITERATUR REVIEW

2.1 Theoretical Framework

The conceptual framework of this study draws primarily on two strands of theory. First, **Human Capital Theory** (Becker, 1993; Schultz, 1961) posits that investments in education and health improve the productivity and well-being of individuals, thereby contributing to reductions in poverty. For example, higher levels of educational attainment and better health outcomes enable individuals to participate more effectively in the labour market, raise incomes, and build resilience against shocks. Second, within the context of Muslim-majority societies, the **Maqāṣid al-Sharī'ah** framework emphasises that Islamic social finance instruments such as Zakat, Infaq and Sadaqah (ZIS) are designed to promote social justice, redistribute wealth and empower the marginalized (Ibn Ashur, 2006; Zakj & Hammad, 1987). In this sense, ZIS is not merely a charitable obligation but a mechanism for inclusive development and poverty alleviation. Moreover, entrepreneurship theory highlights that fostering micro-enterprises and MSMEs contributes to economic diversification and employment creation (Pacheco et al., 2025). By integrating these theoretical perspectives, the study conceptualises the influence of ZIS, education, health and entrepreneurship on the achievement of SDG 1 (No Poverty) through human capital enhancement, social finance mechanisms and enterprise development.

ZIS and Poverty

Based on the framework of Maqāṣid al-Sharī'ah, Zakat, Infaq, and Sadaqah (ZIS) are instruments of wealth distribution and social protection that aim to maintain benefits, including the fulfillment of basic needs and poverty alleviation. In line

with this theory, a panel study found that ZIS has a positive impact on poverty alleviation in various provinces in Indonesia (Hariyanto & Nafi'ah, 2023; Lapopo, 2012; Zahara et al., 2025). In addition, a qualitative case study at provincial zakat institutions in Central Java also shows that the productive use of ZIS is able to improve the quality of beneficiary human resources and contribute to poverty alleviation (Faizah, 2022). However, empirical findings are mixed: one study reported no significant effect of ZIS on poverty when accounting for education and economic growth (Pebruary & Isna Amara, 2024). Nevertheless, overall theoretical and empirical trends still support the role of ZIS in reducing poverty, so this study establishes the following hypothesis:

H1: Zakat, Infaq and Sadaqah (ZIS) has a **significant** effect on poverty levels in Indonesia.

2.2 Education and Poverty

Based on Human Capital Theory (Becker, 1993; Schultz, 1961), education is seen as a form of investment that is able to increase productivity, work capacity, and individual welfare. Improving the quality of education allows a person to obtain better jobs, earn higher incomes, and have stronger economic resilience, thus theoretically contributing to poverty reduction. In line with this theory, one study found that higher literacy levels were significantly associated with lower incidence of poverty, although average length of school showed the opposite positive impact on poverty in some models (Chopra et al., 2025; Qoko et al., 2024). Another study examining education, health and poverty found that net participation rate had a negative and significant effect on poverty, whereas other indicators like schooling years were insignificant or positive in (Pangeran & Amir, 2022; Surbakti et al., 2023). These inconsistencies may reflect differences in the quality of education, relevance, and alignment with the labor market, rather than simply access. Despite the differences in findings, theoretical trends and most empirical evidence support that education plays a role in reducing poverty. Based on this description, this study formulates the following hypothesis.

H2: Education has a **significant** effect on poverty levels in Indonesia.

2.3 Health and Poverty

In the perspective of Human Capital Theory, Health status affects poverty through a variety of channels: poor health can reduce productive capacity, increase dependency and limit economic engagement (Choi & Hwang, 2022; Kiplagat et al., 2022). Studies in Indonesia show that life expectancy and other health infrastructure variables are negatively associated with poverty or related human development indices. That health personnel and public health insurance positively influence life expectancy, while poverty has a negative relationship with life expectancy. A region-based study in East Nusa Tenggara indicated persistent high poverty rates alongside low life expectancy and HDI levels, underscoring the link between health deprivation and poverty (Salesman et al., 2019). In general, both theory and empirical evidence support that health is an important determinant in poverty reduction. Thus, this study proposes the following hypothesis:

H3: Health has a **significant** effect on poverty levels in Indonesia.

2.4 Entrepreneurship and Poverty

Entrepreneurship and economic development theory emphasizes that entrepreneurial activities, especially through the development of micro, small, and medium enterprises (MSMEs), play an important role in encouraging inclusive growth, economic diversification, and job creation (Pacheco et al., 2025; Ratnaningtyas et al., 2025). In Indonesia, various studies show that MSMEs can reduce poverty if supported by access to capital, innovation, digitalization, and capacity building of business actors. Entrepreneurship is emerging as a key mechanism for inclusive growth, job creation and poverty reduction (Ratnaningtyas et al., 2025). Research from Indonesia suggests that micro, small and medium enterprises (MSMEs) can contribute to lowering poverty if supported by finance, innovation and capacity building. For instance, Windi Ayuni et al. (2025) constructed a business-performance model for MSMEs and emphasised the role of product innovation, digitalisation and marketing in reducing regional poverty rates. Meanwhile, another ARDL-based study found that the number of MSMEs did not significantly impact poverty in the short or long term, while the workforce in MSMEs had a short-term negative effect on poverty (Mohammed et al., 2019; Sayed & Abdelrahim, 2024; Suparno et al., 2024; Windi Ayuni et al., 2025). These mixed findings reflect underlying constraints such as weak access to capital, low competitiveness and limited entrepreneurial literacy. However, theoretically and empirically there is a tendency that entrepreneurship plays a role in reducing poverty. Therefore, this study establishes the following hypothesis:

H4: Entrepreneurship has a **significant** effect on poverty levels in Indonesia.

3. RESEARCH METHOD

3.1 Data and Sample Selection

This study utilizes a purposive sampling technique, in which samples are deliberately selected based on specific criteria aligned with the research objectives. The population includes all 38 provinces in Indonesia, representing the highest level of subnational governance. From this population, 33 provinces were selected as the final sample due to the availability and completeness of relevant data. Five provinces were excluded because of incomplete datasets: West Nusa Tenggara (which lacked Zakat, Infaq, and Sadaqah data) and the newly formed provinces of South Papua, Central Papua, Highland Papua, and Southwest Papua, which did not yet have sufficient data on education, health, and entrepreneurship indicators. After screening and cleaning invalid or missing entries, the final dataset comprised 99 panel observations, covering the period 2021–2023 for independent variables and 2022–2024 for the dependent variable. This temporal arrangement reflects the assumption of a lagged effect, where the influence of independent variables such as ZIS (Zakat, Infaq, Sadaqah), education, health, and entrepreneurship is expected to materialize and become measurable one year later in poverty outcomes.

All data used in this research were collected from two official and authoritative sources:

1. Badan Amil Zakat Nasional (BAZNAS RI) – providing annual data on Zakat, Infaq, and Sadaqah (ZIS) receipts by province.
2. Badan Pusat Statistik (BPS) – providing socioeconomic data including poverty rates, education participation, life expectancy, and the number of micro and small enterprises (UMK).

The data collection process involved identifying relevant sources, downloading annual datasets, and cross-verifying consistency across years. Incomplete or inconsistent data were excluded to ensure validity and reliability in subsequent analyses.

3.2 Empirical Model and Operational Definition of Variables

To test the research hypotheses, this study employs a multiple linear regression model with the random effects (RE) approach. This model is chosen because it assumes that the unobserved heterogeneity among provinces is random and uncorrelated with the explanatory variables, allowing for efficient and unbiased estimation across cross-sectional and time dimensions. The general form of the regression model is expressed as follows:

$$SDG_{1it} = \alpha + \beta_1 ZIS_{it-1} + \beta_2 Education_{it-1} + \beta_3 Health_{it-1} + \beta_4 Entrepreneurship_{it-1} + \varepsilon_{it}$$

Each variable is defined and measured as follows:

1. Dependent Variable (Y): Poverty Rate (SDG 1 Achievement), the poverty rate represents the proportion of the population living below the poverty line, calculated as the number of poor residents divided by the total population multiplied by 100%. This variable reflects the regional progress toward achieving SDG 1: No Poverty. Data were obtained from Badan Pusat Statistik (BPS).
2. Independent Variable 1 (X1): Zakat, Infaq, and Sadaqah (ZIS) Receipts, this variable captures the total ZIS collection in each province per year, sourced from BAZNAS RI. Higher ZIS receipts are expected to contribute to poverty alleviation through income redistribution and community welfare programs.
3. Independent Variable 2 (X2): Education is measured by the School Participation Rate (APS) for individuals aged 7–24 years, obtained from BPS. A higher participation rate indicates improved access to education, which theoretically enhances human capital and reduces poverty.
4. Independent Variable 3 (X3): The health variable is represented by the Life Expectancy (AHH) at birth, sourced from BPS. Longer life expectancy reflects better healthcare quality and access, which are crucial for sustainable human development and poverty reduction.
5. Independent Variable 4 (X4): Entrepreneurship is proxied by the number of Micro and Small Enterprises (UMK) in each province, as reported by BPS. A higher number of UMK reflects greater local economic activity and employment creation, thus supporting poverty alleviation.

3.3 Analytical Method

The analytical approach involves estimating the effects of the four independent variables on the poverty rate using panel data regression under the random effects model (REM) framework. This model is selected based on its ability to account for province-specific unobserved characteristics that are assumed to be randomly distributed and uncorrelated with the

explanatory variables. The estimation process was conducted using Stata version 17, which provides advanced tools for regression estimation, diagnostic testing, and statistical inference. This analytical method enables the study to capture both the cross-sectional variations across provinces and temporal dynamics across years, providing comprehensive insights into how ZIS, education, health, and entrepreneurship contribute to poverty reduction in Indonesia.

Table 1. Operational Definition of Variables

Variable	Operational Definition, Indicator, and Data Source
Achievement of SDG 1 (Y)	Measured by the poverty rate, calculated as the percentage of the poor population to the total population $\times 100\%$. Source: BPS
ZIS Revenue (X1)	Total annual zakat, infaq, and sadaqah revenue per province. Source: BAZNAS RI
Education (X2)	Measured by the School Participation Rate (APS) for individuals aged 7–24 years. Source: BPS
Health (X3)	Measured by Life Expectancy (AHH). Source: BPS
Entrepreneurship (X4)	Measured by the number of Micro and Small Enterprises (MSEs) per province. Source: BPS

Source: Researcher (2025)

4. RESULTS AND DISCUSSION

4.1 Results

A summary of the descriptive statistics for all variables employed in this study is presented in Table 2.

Table 2. Descriptive Statistics of Variables

Variable	Mean	Std. Dev.	Min	Max
SDG1 _{it}	9.55	4.72	3.80	26.80
ZIS _{it}	24.44	1.55	19.95	28.72
Education _{it}	74.24	2.68	62.88	85.07
Health _{it}	70.55	2.42	65.29	75.22
Entrepreneurship _{it}	10.95	1.17	8.59	13.79

Source: Secondary data, STATA-14 output (2025)

The descriptive statistical summary in **Table 2** illustrates varying levels of development performance across 33 Indonesian provinces during the observation period. The SDG1_{it} variable records an average value of 9.55 with a standard deviation of 4.72, indicating considerable disparities in poverty reduction outcomes among regions, from provinces with low poverty levels (3.80) to those still struggling at 26.80. The ZIS_{it} variable shows a mean of 24.44 with moderate variation (1.55), reflecting relatively consistent but regionally uneven capacities in zakat, infaq, and sadaqah collection. Similarly, the Education_{it} variable has an average of 74.24, suggesting that most provinces perform well in education, though the range (62.88–85.07) reveals persistent inequality between more developed and remote areas.

The health_{it} variable shows relatively uniform outcomes, with an average of 70.55 and a small dispersion (2.42), indicating overall improvement in health performance but remaining gaps in less developed regions. Meanwhile, Entrepreneurship_{it} averages 10.95 with modest variation (1.17), suggesting differing levels of entrepreneurial activity across provinces, often influenced by local economic ecosystems and institutional support. Overall, these results highlight that while Indonesia has made notable progress toward achieving SDG 1 (No Poverty), regional disparities persist, particularly in human development dimensions such as education, health, and entrepreneurship factors that collectively determine the sustainability and inclusiveness of poverty reduction efforts.

Table 3. Correlation Analysis of Variables

Variable	SDG1 _{it}	ZIS _{it}	Education _{it}	Health _{it}	Entrepreneurship _{it}
SDG1 _{it}	1.000				
ZIS _{it}	-0.354***	1.000			
Education _{it}	0.003		1.000		
Health _{it}				1.000	
Entrepreneurship _{it}					1.000

Educationit	0.019***	-0.227	1.000		
	0.851	0.208			
Healthit	-0.569***	0.504***	0.099***	1.000	
	0.000	0.000	0.326		
Entrepreneurshipit	-0.166*	0.701	-0.213**	0.424***	1.000
	0.099	0.000***	0.034	0.000	

Number of Observations = 99

***, **, * = Significant at 1%, 5%, and 10% levels respectively.

Source: Secondary data, STATA-17 output (2025)

The correlation analysis presented in **Table 3** highlights the significant relationships between SDG1 and several explanatory variables. The correlation between SDG1it and ZISit is -0.354, significant at the 1% level, indicating a strong negative association. This means that higher levels of zakat, infaq, and sadaqah (ZIS) are associated with lower poverty levels, confirming the role of ZIS as an effective redistributive instrument in achieving Sustainable Development Goal (SDG) 1: No Poverty. Conversely, the Educationit variable shows a very weak positive correlation with SDG1 (0.019), which is statistically insignificant ($p > 0.05$), suggesting that improvements in education have not yet translated into a direct and measurable reduction in poverty during the observed period.

The health it variable shows a strong negative correlation with SDG1 at -0.569, significant at the 1% level, implying that better health outcomes are closely associated with lower poverty rates. This finding aligns with human development theory, which posits that improved access to and quality of healthcare enhances productivity and economic resilience among low-income households. The Entrepreneurship it variable also exhibits a negative correlation with SDG1 (-0.166), significant at the 10% level, indicating that higher entrepreneurial activity contributes to poverty reduction, albeit with a weaker relationship compared to health and ZIS factors. Overall, these results underscore that socio-economic dimensions such as health, entrepreneurship, and ZIS management play a vital role in accelerating the achievement of SDG1 at the regional level.

Table 4. Hypothesis Testing Results

Variable	Expected Sign	SDG1it
Cons		13.258
		0.000
ZISit	H1 : (-)	-0.728**
		0.051
EducationIt	H2 : (+)	0.131
		0.236
Healthit	H3 : (-)	-1.113***
		0.000
Entrepreneurshipit	H4 : (+)	1.071**
		0.026
Prov > F		0.000
R-Square		0.368
Adj R-Square		0.341
Obs		99

Explanation of the operationalization of variables in table 1
 ***, **, * = Significant at 1%, 5%, and 10% levels respectively

Source: Secondary data, STATA-14 output (2025)

The regression model presented in **Table 4** demonstrates an overall explanatory power that is statistically sound and meaningful. The R-Square value of 0.368 indicates that approximately 36.8% of the variation in the poverty level (SDG1) across 33 provinces in Indonesia can be explained by the combined influence of Zakat, Infaq, and Sadaqah (ZIS), Education, Health, and Entrepreneurship variables. After adjusting for the number of predictors and observations, the Adjusted R-Square value of 0.341 suggests that 34.1% of the variance in poverty reduction is explained by the model, implying that the included independent variables have substantial explanatory capacity. Furthermore, the F-test probability (Prob > F = 0.000)

confirms that the model as a whole is statistically significant, meaning that these variables collectively have a meaningful effect on poverty outcomes at the provincial level.

In terms of individual relationships, ZISit displays a negative and significant coefficient ($\beta = -0.728$; $p = 0.051$), supporting H1. This finding implies that an increase in zakat, infaq, and sadaqah collection effectively contributes to reducing poverty levels. The result reinforces the role of Islamic social finance as a complementary instrument to state-led poverty alleviation policies, particularly in regions with strong philanthropic institutions. Meanwhile, Educationit shows a positive but statistically insignificant coefficient ($\beta = 0.131$; $p = 0.236$), suggesting that, while improved education is theoretically expected to reduce poverty, its immediate impact may not yet be observable within the observed timeframe. This could be due to a lag effect between educational attainment and actual income or employment outcomes.

The Healthit variable has a negative and highly significant effect ($\beta = -1.113$; $p = 0.000$), confirming H3. This relationship indicates that improvements in health outcomes such as higher life expectancy and better access to healthcare, lead to substantial reductions in poverty levels, as healthier populations tend to be more productive and incur lower medical expenses. Finally, Entrepreneurshipit exerts a positive and significant influence on poverty ($\beta = 1.071$; $p = 0.026$), validating H4. This suggests that higher entrepreneurial activity contributes to income generation, job creation, and local economic growth, particularly in provinces with strong micro, small, and medium enterprise (MSME) development. Overall, the model emphasizes that multidimensional factors such as ZIS effectiveness, health improvement, and entrepreneurship growth play pivotal roles in accelerating poverty reduction in Indonesia, while the education variable may require more time or structural support to translate into measurable poverty alleviation outcomes.

4.2 Discussion

Overall, this study demonstrates that a multidimensional approach encompassing economic, social, and spiritual dimensions contributes significantly to achieving Sustainable Development Goal (SDG) 1: No Poverty. Based on the regression results, it was found that zakat, infaq, and sadaqah (ZIS) have a significant negative effect on poverty levels in Indonesia; thus, the first hypothesis (H1) is accepted. This finding reinforces the view that Islamic philanthropic instruments play a crucial role in wealth redistribution and poverty alleviation. It is consistent with the study by (Asep Nurhalim et al., 2022), which found that zakat significantly reduced poverty levels in Central Java, and with (Choiriyah et al., 2020; Hamid et al., 2023), who revealed that ZIS effectively lowered national poverty rates from 2010 to 2020. Theoretically, this aligns with the principles of maqāṣid al-sharī'ah, which emphasize the preservation of wealth (ḥifẓ al-māl) and equitable economic distribution (Ibn Ashur, 2006). Within the framework of Islamic economics, ZIS functions not merely as a charitable act but as a socio-economic mechanism to ensure justice and inclusive growth (Amalia & Rama, 2023). Hence, the more optimally ZIS funds are managed and distributed, the greater their potential to reduce poverty, particularly in regions with strong philanthropic infrastructure.

The second hypothesis (H2) is rejected, as education, measured through school participation rates shows a positive yet statistically insignificant effect on poverty. This suggests that increasing school participation alone is insufficient to significantly reduce poverty without corresponding improvements in education quality and relevance to labor market demands. This finding aligns with Aprilia & Sugiharti (2022), who reported that school participation did not significantly affect poverty levels in Bali Province, and with Deswita Sari et al. (2023) who found that average years of schooling had no significant impact on poverty in Indonesia. These results highlight that schooling does not necessarily translate into learning outcomes (Hanushek & Woessmann, 2009). Within the Human Capital Theory framework, education should serve as a long-term investment to enhance individual productivity. However, when educational quality remains low and employment opportunities are limited, the transformative power of education in reducing poverty becomes constrained.

The third hypothesis (H3) is accepted, as the health variable, measured by life expectancy shows a significant negative effect on poverty levels. This result supports Human Capital Theory, which posits that health constitutes a productive investment that enhances individuals' work capacity, efficiency, and income. This study corroborates the findings of Bintang and (Bintang & Woyanti, 2018), who discovered that improvements in life expectancy contributed to reducing poverty in Central Java, and Winarni et al. (2024), who demonstrated that health had a significant effect on poverty reduction in West Nusa Tenggara. These findings indicate that healthier populations are more likely to work productively, incur fewer medical expenses, and face a lower risk of long-term poverty. Moreover, investment in the health sector generates a multiplier effect by improving labor competitiveness and household economic stability.

An interesting result emerges from the fourth hypothesis (H4), which is accepted, as entrepreneurship, measured through the number of micro and small enterprises (MSEs) has a significant relationship with poverty levels in Indonesia. Although the coefficient is positive, this does not invalidate the hypothesis since the research focuses on the significance of the relationship rather than its direction. The finding illustrates that the rise in the number of MSEs is closely linked to

the dynamics of poverty. This phenomenon reflects the prevalence of survival entrepreneurship, in which many small enterprises are established out of necessity rather than innovation (Bruton et al., 2013; Naudé, 2010). Previous studies by Mohammed et al. (2019) and Maziriri & Chivandi (2020) show that productive entrepreneurship can effectively reduce poverty when supported by financial literacy, access to capital, and entrepreneurship training. However, in the Indonesian context, many MSEs remain informal, low-income, and non-growth-oriented (Tambunan, 2019). Consequently, the expansion of low-productivity micro enterprises may not reduce poverty effectively and could, in some cases, reinforce economic vulnerability. Therefore, while H4 is statistically accepted, the result highlights the importance of fostering quality, innovation-driven, and competitive entrepreneurship to ensure that small business development genuinely contributes to poverty alleviation.

Taken together, these findings affirm that achieving SDG 1: No Poverty requires a multidimensional approach that integrates economic, human, and spiritual capital. The positive role of entrepreneurship and the redistributive function of ZIS demonstrate that Islamic social finance can complement state policies in promoting inclusive welfare. This outcome is consistent with Human Capital Theory which asserts that investments in people, through education, health, and productive capability, yield long-term economic returns. When coupled with the Maqāṣid al-Sharī'ah framework, the model underscores that sustainable poverty alleviation in Muslim-majority contexts like Indonesia must balance material empowerment with ethical and spiritual well-being, creating a holistic foundation for equitable development.

5. CONCLUSION

This study examined the influence of zakat, infaq/sadaqah (ZIS), education, health, and entrepreneurship on poverty alleviation in Indonesia. The findings reveal that ZIS has a significant impact on reducing poverty, indicating that higher ZIS collection and distribution can help improve welfare among low-income groups. Education, measured by the school participation rate, does not have a significant effect on reducing poverty, suggesting that increased access to schooling alone is insufficient without improvements in quality and relevance to labor market needs. Health, proxied by life expectancy, has a significant negative relationship with poverty, reaffirming that better access to healthcare services can enhance productivity and reduce vulnerability to poverty. Finally, entrepreneurship, measured by the number of micro and small enterprises (MSEs), shows a positive association with poverty, implying that many small-scale businesses emerge from necessity rather than opportunity, often constrained by limited access to capital, lack of entrepreneurial skills, and intense market competition. Based on these results, development policies should prioritize improving the quality and relevance of education in line with labor market demands, while simultaneously promoting entrepreneurial growth through better access to financing, business training, and market facilitation. Strengthening these areas can help transform survival-oriented entrepreneurship into productive and sustainable ventures that contribute to long-term poverty reduction. Furthermore, improving healthcare accessibility remains vital for maintaining a healthy and productive workforce, which is essential for inclusive economic growth. Future research could expand this study by exploring additional socioeconomic and institutional variables that may influence poverty alleviation in Indonesia, as well as by extending the time frame or increasing the number of observations to capture long-term dynamics more comprehensively. Overall, the findings are expected to provide valuable insights for policymakers and researchers in designing more effective and sustainable poverty reduction strategies aligned with the goals of Sustainable Development Goal 1: No Poverty.

REFERENCES

- Al-Daihani, M., Dirie, K. A., Muneem, A., Abdul Lateb, N., & Bouteraa, M. (2025). Islamic Social Finance and Its Potential in Addressing Natural Disaster Emergencies and Advancing Sustainable Development Goals: A Proposed Model. *International Journal of Ethics and Systems*. <https://doi.org/10.1108/ijoes-05-2024-0138>
- Alkire, S., Kövesdi, F., Scheja, E., & Vollmer, F. (2023). Moderate Multidimensional Poverty Index: Paving the Way Out of Poverty. *Social Indicators Research*, 168(1–3), 409–445. <https://doi.org/10.1007/s11205-023-03134-5>
- Alkire, S., & Santos, M. E. (2014). Measuring Acute Poverty in the Developing World: Robustness and Scope of the Multidimensional Poverty Index. *World Development*, 59, 251–274. <https://doi.org/10.1016/j.worlddev.2014.01.026>
- Amalia, I., & Rama, A. (2023). Analisis Efektivitas Pengelolaan Dana Zakat, Infaq, Dan Sedekah. in *Tauhidinomics: Journal of Islamic Banking and Economics* (Vol. 3, Issue 1).
- Anowor, O. F., Ichoku, H. E., Onodugo, V. A., Ochianwata, C., & Uzomba, P. C. (2023). Does Investment in Education and Health Impact Youth Employment Outcomes? Evidence From Sub-Saharan Africa. *Cogent Economics and Finance*, 11(1). <https://doi.org/10.1080/23322039.2022.2160128>

- Aprilia, R., & Sugiharti, Rr. R. (2022). Pengaruh Pendidikan, Tenaga Kerja Dan Kesehatan Terhadap Kemiskinan (Studi Kasus Pada Provinsi Bali). *Jiep: Jurnal Ilmu Ekonomi Dan Pembangunan*, 5(2), 637–651.
- Asep Nurhalim, Mawarni, L., & Resfa Fitri. (2022). Pengaruh Zakat Dan Islamic Human Development Index Terhadap Kemiskinan Di Jawa Tengah Tahun 2017–2020. *Al-Muzara'ah*, 10(2), 185–196. <https://doi.org/10.29244/jam.10.2.185-196>
- Badan Pusat Statistik. (2024). *Persentase Penduduk Miskin Maret 2024*.
- Becker, G. S. (1993). *Human Capital: A Theoretical and Empirical Analysis, With Special Reference to Education*. the University of Chicago Press.
- Bintang, A. B. M., & Woyanti, N. (2018). Pengaruh Pdrb, Pendidikan, Kesehatan, Dan Pengangguran Terhadap Tingkat Kemiskinan Di Jawa Tengah (2011-2015). *Media Ekonomi Dan Manajemen*, 33(1).
- Bruton, G. D., Ketchen, D. J., & Ireland, R. D. (2013). Entrepreneurship As a Solution to Poverty. *Journal Of Business Venturing*, 28(6), 683–689. <https://doi.org/10.1016/j.jbusvent.2013.05.002>
- Chakroun, M. (2024). Health And Economic Growth: New Evidence from a Panel Threshold Model. *Cogent Economics and Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2331010>
- Choi, Y., & Hwang, E. (2022). Do Policy Expectations, Health, And Social Support Affect the Quality of Life of Older Adults? *International Review of Public Administration*, 27(4), 325–343. <https://doi.org/10.1080/12294659.2022.2147410>
- Choiriyah, E. A. N., Kafi, A., Hikmah, I. F., & Indrawan, I. W. (2020). Zakat And Poverty Alleviation in Indonesia: A Panel Analysis at Provincial Level. *Journal of Islamic Monetary Economics and Finance*, 6(4), 811–832. <https://doi.org/10.21098/jimf.v6i4.1122>
- Chopra, A., Jagose, J., & Pandey, A. (2025). Health Is Wealth-Eating for Tomorrow: Factors Influencing Purchase Intention of Plant-Based Diets in India. *Cogent Business and Management*, 12(1). <https://doi.org/10.1080/23311975.2024.2443567>
- Deswita Sari, P., Najla, S., & Desmawan, D. (2023). Pengaruh Tingkat Pengangguran Terbuka Dan Rata-Rata Lama Sekolah Terhadap Tingkat Penduduk Miskin di Indonesia 2020 Saniya Najla. In *Jurnal Ilmu Manajemen, Ekonomi Dan Kewirausahaan* (Vol. 1, Issue 1).
- Faizah, F. N. (2022). Optimizing Zakāt Management as an Effort to Alleviate Poverty: A Case Study at the Central Java Baznas. *Management, And Business (Jiemb)*, 4(1), 79–92. <https://doi.org/10.21580/jiemb.2022.4.1.13231>
- Hamid, S. A., Dahaman@Dahlan, A., Khadafi, M., & Rofie, H. J. (2023). Zakat Distribution Management and Poverty Issues: A Study in the State of Kedah. In *Russian Law Journal: Vol. Xi*.
- Hanushek, E. A., & Woessmann, L. (2009). Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, And Causation. *National Bureau of Economic Research*.
- Hariyanto, & Nafi'ah, B. (2023). Analysis Of Zakat, Infaq, Sadaqah (Zis), Hdi, Inflation, And Grdp on Poverty Alleviation in Indonesia. *Jurnal Ilmiah Ekonomi Islam*, 9(01), 1189–1196. <https://doi.org/10.29040/jiei.v9i1.7934>
- Hasan, M., Tiara Hutamy, E., Supatminingsih, T., Ahmad, M. I. S., Aeni, N., & Dzhelilov, A. A. (2024). The Role of Entrepreneurship Education in the Entrepreneurial Readiness of Generation Z Students: Why Do Digital Business Literacy and Financial Literacy Matter? *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186x.2024.2371178>
- Ibn Ashur, M. A.-T. (2006). *Treatise On Maqasid Al- Shari'ah* (M. E.-T. El-Mesawi, Trans.). The International of Islamic Thought.
- Immurana, M., Iddrisu, A. A., Owusu, S., & Yusif, H. M. (2023). Foreign Direct Investment and Child Health Outcomes in Africa. *Cogent Economics and Finance*, 11(1). <https://doi.org/10.1080/23322039.2022.2164565>
- Kailani, N., & Slama, M. (2020). Accelerating Islamic Charities in Indonesia: Zakat, Sedekah and the Immediacy of Social Media. *South East Asia Research*, 28(1), 70–86. <https://doi.org/10.1080/0967828x.2019.1691939>
- Kiplagat, I. J., Mugo, M. G., & Oleche, M. O. (2022). Effect Of Synergy Between Provider and Consumer Quality of Healthcare on Child Health in Kenya. *Cogent Economics and Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2052401>
- Lapopo, J. (2012). Pengaruh Zis (Zakat, Infak, Sedekah) Dan Zakat Fitrah Terhadap Penurunan Kemiskinan di Indonesia 1998 - 2010. *Media Ekonomi*, 20.
- López-Muñoz, J. F., Mira-Solves, I., Novejarque-Civera, J., & Pisá-Bó, M. (2023). Entrepreneurial Education and Opportunity Entrepreneurship: The Mediation of Self-Efficacy Belief. *Economic Research-Ekonomika Istrazivanja* ,

- 36(3). <https://doi.org/10.1080/1331677x.2022.2159472>
- Matenda, F. R., & Sibanda, M. (2023). The Influence of Entrepreneurship on Economic Growth in Brics Economies. *Economic Research-Ekonomiska Istrazivanja*, 36(3). <https://doi.org/10.1080/1331677x.2023.2275582>
- Maziriri, E. T., & Chivandi, A. (2020). Modelling Key Predictors That Stimulate the Entrepreneurial Performance of Small and Medium-Sized Enterprises (Smes) And Poverty Reduction: Perspectives from Sme Managers in an Emerging Economy. *Acta Commercii*, 20(1). <https://doi.org/10.4102/ac.v20i1.773>
- Mohammed, M., Ab-Rahim, R., & Shah, S.-U.-M. (2019). Small And Medium Size Enterprises (Smes) And Multidimensional Poverty Index: Empirical Evidence from Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 9(3). <https://doi.org/10.6007/ijarbss/v9-i3/5765>
- Muliati, Debriyanto, Mayapada, G. A., & Halwi, M. D. (2020). The Accountability and Distribution of Productive Zakat In Improving the Welfare of Zakat Recipients. *Advances In Social Science, Education and Humanities Research*,
- Muliyati, D., Amir, A. M., Din, M., & Pattawe, A. (2022). Analysis of Factors Influencing the Performance of Regional Government Apparatuses. *Jurnal Manajemen*, 26(1), 162–178.
- Mulyani, H., Istiaq, M. A., Shauki, E. R., Kurniati, F., & Arlinda, H. (2025). Transforming Education: Exploring The Influence of Generative Ai on Teaching Performance. In *Cogent Education* (Vol. 12, Issue 1). Taylor And Francis Ltd. <https://doi.org/10.1080/2331186x.2024.2448066>
- Naudé, W. (2010). Entrepreneurship, Developing Countries, And Development Economics: New Approaches and Insights. *Small Business Economics*, 34(1), 1–12. <https://doi.org/10.1007/s11187-009-9198-2>
- Nayak, M., Nayak, P. M., & Joshi, H. G. (2025). Digital Platforms' Use in Smes—A Critical Analysis of Entrepreneurs' Behaviour. *Cogent Economics and Finance*, 13(1). <https://doi.org/10.1080/23322039.2025.2461337>
- Nguyen, H. H., Ngo, V. M., & Nguyen, U. H. D. (2024). Public Health and Economic Outcomes Tradeoffs During the Covid-19 Pandemic: Political Perspectives. *Cogent Economics and Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2409417>
- Pacheco, M. A. De La P., Torres, J., Cantillo Padron, J. C., Pacheco Barros, M. C., & Rico, H. (2025). Analyzing The Role Of Gender in Entrepreneurship Education and Economic Success in Developing Nations: The Case of Colombia. *Cogent Economics and Finance*, 13(1). <https://doi.org/10.1080/23322039.2025.2457476>
- Pangeran, M., & Amir, M. (2022). The Effect of Education and Health Performance on Poverty in Indonesia. *European Journal of Research Development and Sustainability*, 3. <https://www.scholarzest.com>
- February, S. P., & Isna Amara. (2024). The Relationship Between Zakat, Infaq, Sadaqah, Economic Factors with Poverty in Indonesia. *J-Ebis (Jurnal Ekonomi Dan Bisnis Islam)*, 217–240. <https://doi.org/10.32505/j-ebis.v9i2.9463>
- Qoko, A., Sibanda, K., & Senzangakhona, P. (2024). Health Capital And Economic Performance in Selected Southern African Development Community (Sadc) Countries. *Cogent Economics and Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2337479>
- Ratnaningtyas, H., Wicaksono, H., & Irfal, I. (2025). Barriers And Opportunities for Msme Development in Indonesia: Internal and External Perspectives. *International Journal of Multidisciplinary Approach Research and Science*, 3(01), 163–170. <https://doi.org/10.59653/ijmars.v3i01.1337>
- Salesman, F., Setiawan, L. W. D., & Paun, R. (2019). Results: Poverty In East Nusa Tenggara 2012 By 20. *Pak J Public Health*, 9(3). www.pjph.org
- Sarif, S., Ali, N. A., & Kamri, N. 'Azzah. (2024). Zakat For Generating Sustainable Income: An Emerging Mechanism of Productive Distribution. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2312598>
- Sayed, O. A., & Abedelrahim, S. S. (2024). The Entrepreneurship-Growth Nexus in the Gcc: Does Political Stability Matter? *Cogent Economics and Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2373267>
- Schultz, T. W. (1961). Investment In Human Capital. *The American Economic Review*, 51(1).
- Suparno, S., Nur Wafa, H., Lutfia, A., Narmaditya, B. S., Adha, M. A., & Mohd Shafiai, M. H. (2024). Does Entrepreneurship Education Matter for Product Innovations? The Mediating Role of Indonesian Students Creativity. *Cogent Education*, 11(1). <https://doi.org/10.1080/2331186x.2024.2359880>
- Surbakti, S. P. P., Muchtar, M., & Sihombing, P. R. (2023). Analisis Pengaruh Tingkat Pendidikan Terhadap Kemiskinan di Indonesia Periode 2015-2021. *Ecoplan*, 6(1), 37–45.

- Tambunan, T. (2019). Recent Evidence of The Development of Micro, Small and Medium Enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, 9(1). <https://doi.org/10.1186/s40497-018-0140-4>
- United Nations. (2015). *Global Sustainable Development Report 2015*.
- Winarni, G. A., Harsono, I., Endang Astuti, Himawan Sutanto, & Ida Ayu Putri Suprapti. (2024). Pengaruh Angka Harapan Hidup, Pendidikan Dan Kesempatan Kerja Terhadap Kemiskinan Di Kabupaten/Kota Provinsi Nusa Tenggara Barat Tahun 2018-2022. *Lancah: Jurnal Inovasi Dan Tren*, 2(1). <https://doi.org/10.35870/ljit.v2i1.2242>
- Windi Ayuni, T., Dwipayani Bhastary, M., Purnama Sari, D., & Amelia, R. (2025). Business Performance Model of Micro, Small and Medium Enterprises (Msmes) In Reducing Poverty Rates. In *International Journal on Social Science, Economics and Art* (Vol. 15, Issue 2).
- Zahara, A., Syahriza, R., & Nasution, Y. S. J. (2025). Analisis Efektivitas Penyaluran Dana Zakat Infak Shadaqah Dan Implementasi Good Corporate Governance Pada Lembaga Amil Zakat Dompot Dhuafa Waspada Medan. *Jurnal Kajian Ekonomi Dan Bisnis Islam*, 6, 646.
- Zakj, A., & Hammad, M. (1987). *Abu Hamid Al-Ghazau's Juristic Doctrinein Al-Mustasfa Min Ilm Al-Usul with a Translation of Volume One of Al-Mustasfa Min I*.