International NGOs' Educational Budgets on Human Development Index in Conflicting Low-and-Lower-Middle-Income Countries

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Abstract

This study critically examines the impact of International Non-Government Organizations' (INGOs) educational funding on human development outcomes in conflict-affected and developing regions, focusing on Syria, Bangladesh, DRC, Sudan, and Ukraine. Employing a mixed-methods approach, the research analyses the relationship between INGO budget allocations for education and the Human Development Index (HDI), utilizing panel data regression models and qualitative thematic analysis. Quantitative findings indicate a positive association between INGO educational expenditures and HDI; however, econometric issues such as autocorrelation, heteroskedasticity, and cross-sectional dependence limit the robustness of results. Qualitative insights reveal that most INGOs operate with limited budgets, prioritize needs assessments, and consider macroeconomic factors like GDP and HDI in planning. Despite resource constraints, a majority intend to increase educational investments, often through partnerships with local governments. The study underscores the importance of context-sensitive strategies and comprehensive analysis for effective development interventions. While findings support the hypothesis that increased INGO funding correlates with improved human development, methodological limitations necessitate cautious interpretation. The research contributes to understanding operational dynamics, strategic planning, and the nuanced role of INGOs in fostering sustainable development in fragile contexts, offering valuable insights for policy and future research directions.

Keywords: human development index; sustainable development; educational funding

1. Introduction

With growing interest in offering International Non-Government Organizations (INGOs) an assessment on the role of domestic and international economic growth and social development in conflict and developing regions, it is felt that these areas pose restrictive, glaring challenges in forms of political instability, systematic poverty, and ongoing conflicts justifying a context-specific INGO intervention. This paper shall aim to underscore a critical review investigating INGOs' activities in a specific area-universities-where they relate to key development outcomes viewed through HDI as an all-encompassing measure for progress. The study shall focus on variables such as budget lines-disbursed by the INGO-for educational programs; expectations-in both political and bureaucratic forms-made to bear down on these interventions; and the possibly felt impact-an economic and social one-registered in five view-worthy countries, namely, Syria, Bangladesh, the Democratic Republic of the Congo (DRC), Sudan, and Ukraine. There is an enormous amount of literature that recognizes INGOs as essential players in crisis response and sustainable development; however, massive gaps still exist regarding the very mechanisms through which their interventions translate into measurable

economic improvements. Earlier research works suggest that alignment between INGO projects and development frameworks at large-the UN Sustainable Development Goals (SDG) is imperative. Existing literature, however, has failed to provide an analysis that comprehensively considers the numerous operational variables impacting development metrics such as the HDI, particularly funding, program scope, and local contexts. Moreover, theoretical discourses such as Dependency Theory and the Social and Solidarity Economy (SSE) suggest contrasting outlooks: critics warn of dependency creation (Santos, 2019), while proponents argue that INGOs can foster community empowerment and social value (Egorov & Inshakov, 2021).

By analysing alongside educational interventions by INGOs with development consequences using a mixed-methods approach, this study aims to fill this gap. The quantitative analysis used regression models to assess the correlation between funding for education by INGOs and changes in HDI while qualitative case studies investigate contextual factors affecting these relationships. This allows the study to provide an evidence base for INGO interventions' effectiveness in challenging contexts and contribute to the theoretical discourse of dependency versus empowerment. All research ultimately contributes towards establishing strategic thinking for leadership in creating sustainable impact for both academic discourse and practical policy-making in regions struggling with extreme development challenges.

2. Literature Review

2.1. Economic Indicators in Low-and-Lower-Middle Income Economies

To assess INGOs' influence on economic development, relevant data have been collected that gauge the effects upon GDP, employment rates, and other indicators of importance in the countries where INGOs operate. This entails categorizing INGO projects by types, such as health and education, and performing statistical analyses to highlight trends, correlations, and long-term effects of these projects on the development indicators. Countries are classified by Gross National Income (GNI) per capita, with high-income nations focusing on innovation while low-and-middle-income nations emphasize infrastructure, education, and healthcare. As can be seen in Figure 1, notable GDP trends show Bangladesh's increase from $84.83 in 1960 to over $2,500 in 2023, contrasting with DRC, which saw a drop amid conflicts, and Ukraine, which peaked at $5,181.36 despite strife.
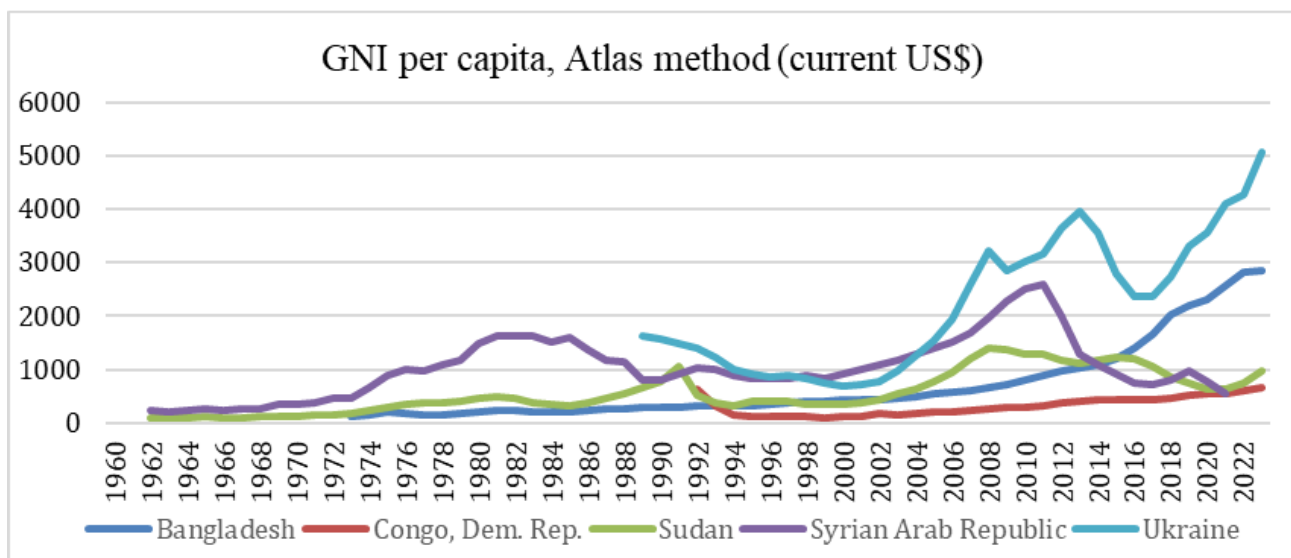

Figure 1. GNI per capita from 1960 to 2022 for the selected LLMICs, World Bank (2024).

In turn, as shown in Figure 2, the HDI further reflects development, with Bangladesh improving from 0.399 in 1990 to 0.670 in 2022 due to healthcare and educational advancements. However, conflict-affected nations like the DRC and Syria saw fluctuating HDIs, while Ukraine maintained a stable HDI at 0.734. Bangladesh faces trade deficits driven by imports, while the DRC saw improvements due to mining exports. Sudan and Syria struggled with trade due to conflicts.

Access to capital, technology transfer, and effective governance are vital for economic development. Foreign Direct Investment (FDI) fosters capacity-building, job creation, and technological advancement in low-and-middle-income nations (World Bank, 2013). Partnerships with INGOs enhance investment climates by advocating for ethical practices and fostering collaboration (Quazi et al., 2014; Teegen et al., 2004). Bangladesh's significant GDP growth and HDI improvements reflect successful investments in education and health, while countries like the DRC and Sudan illustrate the challenges of conflict and governance on economic performance. The analysis sets the stage for discussing theoretical frameworks in economic development.
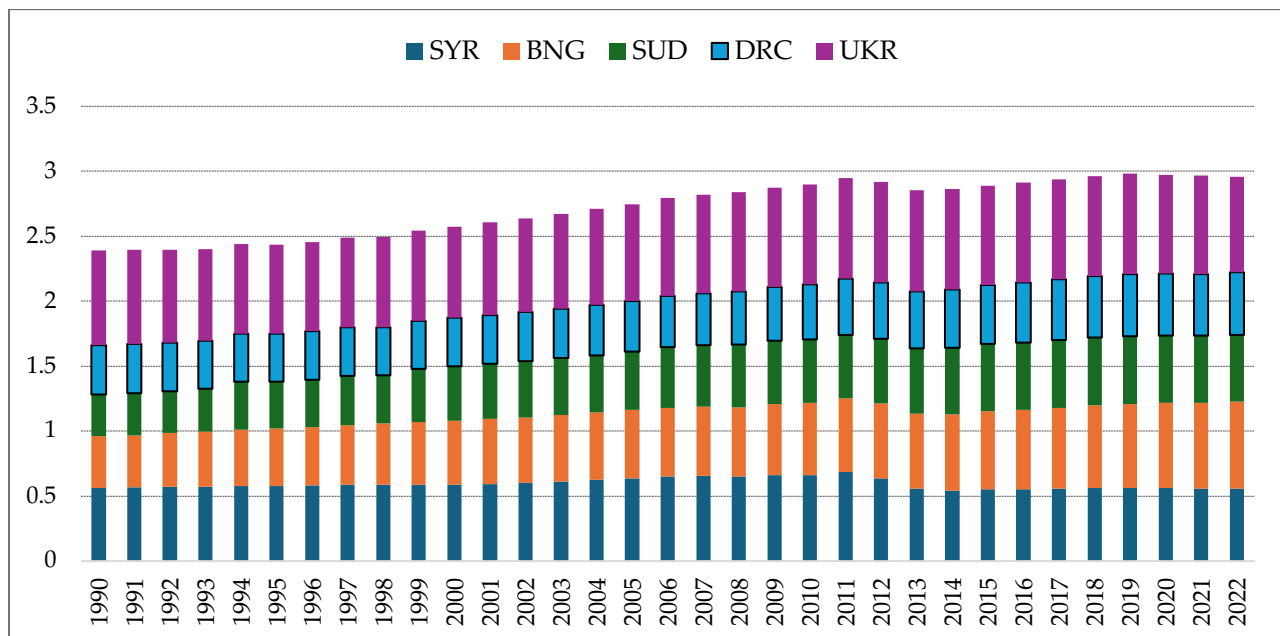

Figure 2. HDI levels for the selected LLMICs, our World in Data (2024).

2.2. Economic Development Theories

Linking emerging economic pathways in low- and lower-middle-income countries (LLMICs) to established development theories is essential. Human capital theory connects Bangladesh's GDP and HDI growth to investments in education and health, while Dependency Theory explains the challenges of the DRC, where reliance on primary exports and conflict hinder sustainable development. Similarly, Sudan and Syria reflect the Fragile States concept, where state failure impedes progress, seen in declining HDI and GDP. In contrast, Ukraine's resilience amidst geopolitical tensions underscores the importance of strong institutions in stabilizing economies, as emphasized by Institutional Economics.

Theoretical frameworks guide the development of context-specific policies that prioritize sustainability. Sustainable development, which integrates economic growth, environmental integrity, and social equity, must balance these pillars to achieve long-term success without compromising justice (WCOEA, 1987). Community and stakeholder engagement are vital to ensure policies are culturally relevant (Scoones, 1998). Historical contexts influence development, highlighting disparities between high- and low-income nations. Classical economics advocates for market mechanisms, while Keynesian theory calls for government intervention. Modern approaches focus on diversification and human capital.

Development economics aims to improve conditions in developing countries through poverty alleviation and structural transformation. Lewis (1954) emphasized labour redistribution from agriculture to industry, while Paul Rosenstein-Rodan's "big push" theory calls for substantial investments to stimulate growth. Jeffrey Sachs advocates for targeted foreign aid (Sachs, 2005), and Amartya Sen's "Development as Freedom" emphasizes well-being over mere economic growth (Sen, 1999). Solow's Growth Model highlights that long-term growth stems from technological progress, not just capital accumulation (Solow, 1956), aligning with Rodan's emphasis on investment for growth.

Behavioural economics challenges traditional models by incorporating psychological factors that influence decision-making. Loss aversion and information inequity, as explained by Kahneman & Tversky (1982) and Akerlof (1970), reveal how cognitive biases can disrupt markets. Bounded rationality, proposed by Simon (1972), suggests decisions are often influenced by social norms rather than optimal choices, offering insights into market dynamics. Income classification by the World Bank categorizes countries into low, lower-middle, upper-middle, and high-income groups, with high-income countries benefiting from diversified economies and strong institutions. LLMICs face barriers like low human development and limited access to essential services, making infrastructure and labour market improvements crucial for boosting their economies (UNDP, 2021; ILO, 2021). In conclusion, economic development theories such as capital accumulation, labour productivity, and technological innovation provide a framework for understanding growth across various contexts. Integrating these theories into policy decisions can foster sustainable, equitable economic progress.

2.3. The Relationship between INGOs and Economic Crises

Economic crises in developing nations often stem from excessive debt, political instability, and external shocks, leading to currency devaluation, inflation, and limited policy options for recovery (Dornbusch & Fisher, 1990). In such contexts, International NGOs (INGOs) play vital roles by delivering humanitarian aid, supporting development initiatives, promoting policy reform, and partnering with local governments to address both immediate effects and structural causes of crises with a focus on stability and equity. The World Bank classifies countries by income—Low, Lower-middle, Upper-middle, and High-income—using GNI per capita thresholds (World Bank, 2016). Lower- and lower-middle-income countries (LLMICs) often face entrenched challenges such as poverty, inadequate education and healthcare, and weak infrastructure, all of which hinder economic recovery and exacerbate the impact of crises (UNDP, 2021). These countries are particularly vulnerable to external shocks like market volatility and natural disasters, which further deteriorate living conditions (Ravallion, 2016).

INGOs are thus critical actors in crisis settings, delivering essential services and supporting long-term development goals (Oxfam, 2023). Research using qualitative methods and conceptual models underscores the dual roles INGOs play—either substituting or complementing state efforts to promote social justice and resilience (Sun, Yang, & Zhang, 2017). Kaldor and Anheier (2017) highlight how INGOs foster capacity building, inclusion, and equity, both during and in anticipation of economic crises. Other studies examine how crises affect local NGOs' funding. Tzifakis et al. (2017), for example, found that Greece's economic crisis unexpectedly increased NGO funding. Khieng and Dahles (2014) observed that donor priorities significantly influence NGO agendas in Cambodia, sometimes at the expense of genuine development goals. Arieff, Weiss, and Jones (2010) reported that institutions like the African Development Bank responded to the 2009 crisis by scaling up support for infrastructure and governance, recommending stronger social safety nets and engagement with INGOs. Similarly, Morton (2014) notes that INGOs' global networks and budgets enhance their ability to deliver aid but can also strain relations with local civil society organizations. These studies reveal the complex interplay between economic crises, donor dynamics, and NGO operations. Understanding this landscape is essential for enhancing INGOs' effectiveness in promoting sustainable development and navigating economic volatility in developing contexts.

2.4. Social and Solidarity Economy (SSE)

The Social and Solidarity Economy (SSE) prioritizes social and environmental goals over profit, encompassing cooperatives, social enterprises, and community-based organizations. Rooted in principles of equity and solidarity, SSE promotes sustainable development and reduces inequality through democratic governance, collective ownership, and participatory decision-making. It provides essential services, livelihoods, and social protection across sectors such as agriculture, healthcare, and renewable energy (Utting, 2015).

INGOs contribute significantly to SSE through technical assistance, capacity-building, advocacy, and facilitating networks. Oxfam exemplifies this by partnering with SSE actors to promote fair trade, sustainable agriculture, gender justice, and social entrepreneurship. These partnerships strengthen community organizations, support marginalized groups, and advocate for policy change (Oxfam, 2014). Similarly, the

International Labour Organization (ILO) supports SSE by advancing decent work, worker rights, and policy frameworks that promote sustainable livelihoods (ILO, 2024). SSE emphasizes stakeholder needs over profit, addressing employment, gender equity, economic disparities, and the formalization of informal work (Utting, 2015). Borzaga, Salvatori, and Bodini (2017) argue that supportive national and international policies are essential to integrate SSE into the broader economy. They outline three policy categories: enabling regulatory environments, tailored incentives (e.g., tax breaks, seed funding), and sectoral support mechanisms. Real-world models such as the Grameen Bank and Mexico's ejido system illustrate SSE in action. Grameen's solidarity-based microfinance model empowers women and reduces default risk (Yunus, 2007), while the ejido system reflects communal land management and equitable resource distribution, buffering farmers from market volatility (De Janvry & Sadoulet, 2002). SSE is essential for promoting economic democracy and inclusive development. When supported by INGOs and coherent policy frameworks, SSE can drive transformative change toward more equitable and resilient economies.

2.5. Base of the Pyramid (BOP) Business, Roles of INGOs, and SSE

The Base of the Pyramid (BOP) refers to low-income populations often overlooked by traditional businesses but recognized for their potential in driving economic growth and poverty alleviation. INGOs play a crucial role in promoting inclusive business models and social entrepreneurship by facilitating partnerships, offering technical support, and fostering market-based solutions that improve access to essential goods and services (Prahalad, 2005, 2006). By empowering BOP entrepreneurs and small businesses through training, capacity-building, and market access, INGOs help create inclusive value chains that contribute to job creation and improved livelihoods (Karnani, 2007). London and Hart (2004) emphasize INGOs' roles in supporting innovative approaches to product design, marketing, and distribution, enabling companies to generate shared value while serving BOP consumers.

Hammond et al. (2007) highlight the BOP—comprising roughly 4 billion people—as a significant economic segment with alternative financial systems. INGOs, acting as unconventional partners, support the development of inclusive strategies. London (2008) further underscores how INGOs and microcredit initiatives positively impact poverty reduction through BOP market development. However, Hara (2021) notes that BOP business models do not always correlate with measurable poverty alleviation outcomes. Using regression analysis, the study calls for theoretical frameworks that link BOP business maturity with poverty reduction, recommending context-sensitive strategies and mixed methods research to deepen understanding.

Tennyson et al. (2008) describe the varying maturity levels of NGO-business partnerships in World Vision programs, ranging from transactional to deeply collaborative engagements. Success hinges on overcoming cultural and power asymmetries. Hellgren (2015) adds that local context matters—grassroots NGOs may be more effective than INGOs in certain geographies, such as China, where partnerships must navigate state influence and community dynamics. Menden et al. (2019) stress that inclusive business alliances benefit from the complementary strengths of NGOs and firms, though power imbalances and organizational differences must be managed. Jansson and Nilsson af Sillén (2013) identify market barriers in African BOP contexts, stressing the need for tailored solutions. Overall, INGOs function as critical enablers in BOP markets by offering expertise, mobilizing resources, and fostering collaborative strategies for poverty reduction and inclusive economic development.

2.6. The Influence of INGO Projects on FDI to Promote Community Development

The role of International NGOs (INGOs) in shaping foreign investment and community development has gained scholarly and policy attention. INGOs contribute to local capacity building and governance reform, often collaborating with governments to enhance education and promote participation, though challenges such as state reluctance and overemphasis on service delivery persist (Ulleberg, 2009). However, the influence of INGOs on foreign investment remains debated. Allard and Martinez (2008) found no direct correlation between INGO interventions and increased FDI, while Spar and La Mure (2003) argue that corporate responses to INGOs depend on cultural and institutional contexts. Barry et al. (2013) further notes that human rights INGOs may deter investment through reputational "shaming" effects.

FDI remains vital for economic growth by bringing capital, technology, and job creation opportunities—totaling USD 706 billion in developing countries in 2020 (UN, 2021). In South Asia, INGOs support infrastructure and skills development, indirectly creating a more favorable environment for investment (Quazi et al., 2014). Teegen, Doh, and Vachani (2004) highlight how INGOs can influence both public and private sectors, reshaping economic systems. Rauter et al. (2019) argue that INGOs foster collaborative sustainable development when they integrate economic innovations, in alignment with evolving UN development agendas. Meanwhile, Costanza et al. (2013) question the link between growth and development, proposing alternative sustainability pathways.

Political context is crucial. Geopolitical interests shape commerce (Toye & Toye, 2004), and INGOs often operate under constraints posed by politics and governance. Cooley and Ron (2002) emphasize their role in promoting sustainability post-crisis, while Roy (2017) documents INGO success in poverty alleviation through livelihood projects in rural Bangladesh. Nonetheless, challenges in aid distribution, particularly in Central Africa and Mozambique, hinder INGOs' long-term development impact. Despite their contributions to social welfare and stability, the influence of INGOs on FDI remains indirect and context-dependent, shaped by institutional dynamics and global political structures.

2.7. Strategies for Sustainable Development in Fragile Contexts: A Comparative Perspective

This comparative analysis examines the relationships between economic conditions, INGOs, and development outcomes across five countries facing conflict, instability, and humanitarian crises. Bangladesh has experienced notable socio-economic progress, supported by government and NGO efforts. Yet challenges persist in reaching the ultra-poor, addressing gender disparities in microcredit, and ensuring NGO accountability (Chowdhury et al., 2020). INGOs like BRAC play a critical grassroots role, though limited funding hampers their reach (Baser & Hasnath, 2022). Sustainable progress requires innovation in funding and stronger institutional capacity (Bhandari, 2017).

Syria remains devastated by prolonged conflict, with recovery efforts emphasizing resilience and local empowerment (UNDP, 2013; Suliman et al., 2024). Syrian NGOs have become central to aid delivery, despite funding constraints and insecurity (Alhousseiny & Atar, 2021). Civil society resilience can be strengthened through strategic partnerships and youth engagement (Rajjoub, 2020), although the volatile security environment complicates economic analysis and long-term planning. Sudan suffers from economic collapse due to prolonged conflict and sanctions, marked by hyperinflation and deep poverty (World Bank, 2020). INGOs such as WFP and Médecins Sans Frontières are vital in delivering aid. Recent shifts toward long-term development underscore the need for integrated approaches, yet restrictive policies and security risks necessitate closer collaboration with local organizations and the transitional government (OECD, 2020).

DR Congo endures extreme poverty despite abundant natural resources, with over 60% of the population living below \$1.90/day (World Bank, 2021). INGOs provide essential services in health, education, and food security, but insecurity and fragmented aid efforts limit impact (UN OCHA, 2024; ODI, 2009). Empowering local institutions and improving coordination are key to sustainable development. Ukraine has faced socio-economic upheaval since 2014, worsened by the 2022 invasion. INGOs such as Oxfam and CARE International offer humanitarian aid and build local governance capacity (ICRC, 2022; Oxfam International, 2024). However, bureaucratic hurdles and security concerns demand adaptive, collaborative strategies (European Commission, 2023). Overall, in various contexts, INGOs play a crucial role in responding to urgent needs and supporting development. However, challenges such as governance gaps, limited funding, and security risks require adaptable strategies that are locally driven to ensure sustainable results.

2.8. Identification of Study Gaps

The existing literature underscores the pivotal role of INGOs in fostering development across various sectors; however, there remains a significant gap in understanding how specific project types—such as food security, education, health, microfinance, and peace-building—translate into tangible development outcomes like the HDI. While prior studies have highlighted the importance of INGO involvement (Spar & La Mure, 2003), they

often generalize impact without dissecting the influence of targeted project allocations or operational effectiveness across different initiative categories. Recent research suggests that a nuanced analysis linking project-specific budgets to development indicators is essential to clarify the mechanisms through which INGOs contribute to sustainable progress (Tzifakis et al., 2017).

Furthermore, understanding the strategic rationale behind INGO project selection and resource distribution remains underexplored. Insights into criteria such as job creation, market access, and improvements in health and education—especially within fragile or underdeveloped contexts—are crucial for evaluating the effectiveness and alignment of INGO interventions with broader development goals (Utting, 2015). Recent case studies across socio-economic challenges highlight that effective project prioritization and resource allocation are influenced by contextual factors and organizational strategies (Rajjoub, 2020; Baser & Hasnath, 2022).

To address these gaps, this research proposes the development of a targeted model that explicitly links project categories to measurable outcomes like HDI, thereby elucidating how different INGO initiatives contribute to economic development and sustainability. By analysing diverse case studies from countries facing conflict and socio-economic instability—such as Syria, DRC, Sudan, Bangladesh, and Ukraine—this study aims to identify best practices and inform decision-making frameworks aligned with the SDGs. Incorporating recent findings on the influence of funding patterns and operational effectiveness (Oxfam, 2022; UNDP, 2022), this approach enhances strategic planning and optimize INGO contributions toward sustainable development.

How do International NGOs allocate their budgets specifically for education projects – in Syria, DRC, Sudan, Bangladesh, and Ukraine – and how do these allocations relate to HDI in the respective countries?

3. Proposed Theoretical Framework

The relationship between INGOs and economic development in developing countries is shaped by several theoretical perspectives. Modernization theory posits that development follows a linear path toward industrialization and modernization, as seen in the models of developed nations (Habakkuk & Rostow, 1961). INGOs contribute to this transition by promoting education, facilitating technology transfer, and supporting governance reforms. Initiatives like UNDP's "Youth Empowerment" and IFAD's promotion of modern agricultural practices exemplify efforts to enhance human capital and productivity. However, critics argue that modernization theory overlooks cultural and historical contexts (Wallerstein, 1974), raising concerns about the universal applicability of linear development.

In contrast, dependency theory emphasizes the structural inequalities embedded in the global economy, where developing nations remain reliant on external aid and markets, hindering genuine economic autonomy (Santos, 2019). INGOs can challenge this dependency by supporting local entrepreneurship and fair trade. For instance, Oxfam's initiatives empower communities through equitable market access, while organizations like ITUC advocate labor rights to prevent exploitation by multinational corporations. These efforts aim to reduce systemic reliance and promote self-sufficiency.

Neoclassical economics, grounded in the principles of free markets and minimal state interference, highlights the importance of supply and demand, human capital investment, and competitive markets for economic growth (Smith, 2003). INGOs play a supportive role by promoting SME development and microfinance, as seen in the work of IFC and UNIDO. These organizations enhance local market competitiveness and align development initiatives with economic incentives.

INGOs also directly influence development indicators such as HDI, GDP, literacy, and food security through targeted interventions in education, health, and livelihood. Programs that rebuild assets and generate employment can stimulate economic activity and enhance life expectancy and living standards. As illustrated in Figure 2, these investments underline the importance of sustained funding for relief, rehabilitation, and economic empowerment programs.
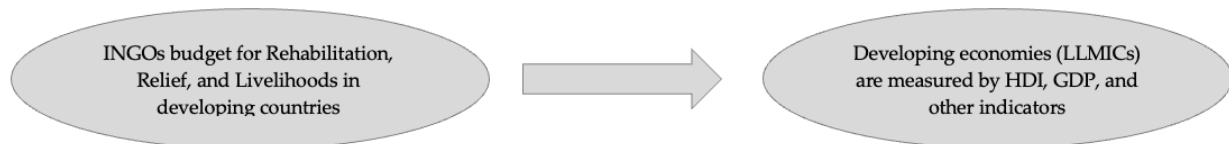
Figure 3. INGOs and economic development. Source: Authors' own.

The rationale behind the analytical framework lies in its capacity to integrate multiple theoretical perspectives—modernization, dependency, and neoclassical economics—to comprehensively assess the multifaceted role of INGOs in economic development. By adopting a multidimensional approach, the framework enables researchers and policymakers to evaluate the effectiveness of INGO interventions across various development indicators, while accounting for different underlying economic paradigms. This holistic perspective facilitates a nuanced understanding of how INGOs can adapt strategies to diverse contexts, identify which interventions yield sustainable outcomes, and address potential limitations inherent in any single theoretical approach. Incorporating empirical data and statistical analyses within this framework ensures evidence-based evaluations, ultimately guiding more targeted and effective development policies. Recent literature (e.g., Smith, 2003) emphasizes the importance of such integrative frameworks, highlighting how combining multiple perspectives can better capture complex development realities and improve the design and assessment of INGO programs.

In conclusion, understanding the diverse theoretical foundations —modernization, dependency, and neoclassical economics—provides a multidimensional lens through which to assess the economic impact of INGOs. A robust analytical framework, supported by empirical data and statistical analysis, is essential for evaluating the effectiveness of INGO interventions and guiding future policy and practice in promoting sustainable development in low- and lower-middle-income countries.

4. Methodology

4.1. Research Design

The study of how INGOs allocate their budget on education projects in the five countries requires a comprehensive mixed-methods approach. This methodology combines quantitative and qualitative methods to provide a deeper understanding of budget allocations. Quantitative data reveals statistical patterns, while qualitative data uncovers motivations and challenges, enhancing validity through triangulation. Using a mixed-methods approach allows for a holistic understanding of budget allocation processes. Quantitative methods provide evidence regarding barriers and amounts allocated, whereas qualitative methods explore the motives and rationale behind these decisions. Budget allocation depends on numerical data and the perceptions and priorities of various stakeholders within the organization.

In designing this approach, the study implemented an explanatory sequential design, starting with quantitative data collection and analysis, followed by qualitative data to explore and clarify the findings. A questionnaire was developed to quantify trends in budget allocation and elicit insights around those trends. As noted by Creswell and Plano Clark (2018), this approach facilitates the establishment of a baseline understanding that is enriched by qualitative insights, allowing for a more nuanced interpretation of the data. The quantitative methodology employs a rigorous statistical framework to probe budget allocations from INGOs to education initiatives, correlating them with development indicators such as the HDI. Data will be sourced from annual reports, UN databases, and government records, utilizing regression and correlation analyses to examine relationships between funding levels and development conditions.

The qualitative component explores the intricate factors influencing budget allocation decisions. Primary representatives from INGOs, such as financial officers and program managers, participate through questionnaires and document analysis. Thematic analyses identify common motivations, challenges, and

contextual considerations affecting budgetary decisions, providing insights into why INGOs invest in certain countries and the challenges faced in fund allocation.

This mixed-methods approach bridges statistical findings with the complexities of real-world decision-making. While quantitative results may establish correlations between HDI and funding, qualitative insights illuminate the external influences shaping these choices, such as donor priorities and geopolitical factors. Ultimately, this research aims to create a comprehensive view of financial decision-making within INGOs by merging quantitative and qualitative data.

The sampling strategy for this study employs a purposive sampling approach to select key informants and relevant documents from a diverse range of INGOs operating within the five target countries. Participants include financial officers, program managers, and decision-makers who have direct involvement in budget allocation processes. This approach ensures that insights are gathered from individuals with firsthand knowledge of funding decisions and organizational priorities. Additionally, organizations were selected based on their active engagement in education projects and their representativeness across different sizes and operational contexts. Document analysis includes annual reports and strategic plans from these INGOs, providing comprehensive contextual data. This purposive sampling facilitates in-depth exploration of the nuanced factors influencing budget allocations and enhance the richness and relevance of the qualitative findings.

4.2. Quantitative Aspect

For the quantitative aspect, purposive sampling was employed to select education-themed INGOs from databases of USAID, UN Agencies, and the World Bank. This sampling ensures a representative range concerning operational scale and geographic location. Data collection for the quantitative phase involve an in-depth document analysis of financial reports and publicly available databases. Information on budget allocation to educational projects will be gathered from the annual reports of the INGOs, UN databases, and government records, with an emphasis on organizational budgets for education and development indicators, particularly HDI. The sample size of the quantitative study is not only focusing on the five selected countries, but includes in addition to the five selected countries all the 76 LLMICs according to World Bank' latest updates. Therefore, panel data analysis was employed.

4.3. Qualitative Aspect

For the qualitative component, data were collected using structured questionnaires directed at key stakeholders, including coordinators, officers, and program managers from selected INGOs - UNDP, UNICEF, Triangle Generations Humanitaire (TGH), and other INGOs, including ICRC and the Agha Khan Foundation (AKF). Participation was coordinated to ensure transparency in reporting and a proven commitment to community development programs. The questionnaires consist of open-ended questions aimed at appraising the rationale, challenges, and decision-making processes involved in budget allocation. Thematic analysis was employed to extract major themes and insights from qualitative responses, revealing the factors that influence decision-making.

4.4. Data Analysis

The multiple functions of INGOs in economic development reiterate the linkage between growth, social equity, and environmental sustainability. Using a variety of strategies, including the promotion of SSE, Bottom of the Pyramid (BOP) activity, and Foreign Direct Investment (FDI) engagement, INGOs possess significant potential to contribute to economic prosperity in developing nations. However, INGOs will be more effective in their interventions when their actions are grounded in local ethos, and when they build trust in local partnerships that empower communities.

The proposed paper utilizes a mixed-methods approach, combining both quantitative and qualitative methods. It examines the role of granting NGOs in economic development across LLMICs. The primary

question this paper seeks to answer is the relationship between the budget allocated to education projects and the HDI of LLMICs. This research focuses on major INGOs involved in educational interventions and other development programs.

On the quantitative side, descriptive statistics summarize trends in budget allocation alongside regulatory analysis to detect relationships between budget allocations and HDI. Quantitative data has been collected through documents analysis and publicly available data, which was first subjected to descriptive statistical analyses. There's a great need to understand the intricate relationship between education program budget allocations of INGOs and HDI for effective policymaking and resource allocation in low- and middle-income countries. In this analysis, the study employs panel data methods to assess how varying budget allocations impact HDI scores, which serve as a pivotal composite measure of development, encompassing health, education, and income.

The independent variable under consideration consists of Budget Allocations, which is a reflection of the total financial resources committed by international agencies such as that of the UN to educational initiatives planned toward countries classified as LLMICs. This has enabled the analysis of contributions made by INGOs and their implications, particularly for educational outcomes and overall human development. This dependent variable HDI captures the multidimensional status of LLMIC countries in terms of a composite index of life expectancy, education levels (mean and expected years of schooling), and gross national income per capital.

Panel data is defined as multi-dimensional for measurement over time, thus presenting a firm groundwork for our analysis. This would have been impossible by controlling individual heterogeneity and dynamic behaviours that corrupted results in purely cross-sectional studies. This is the basis for investigating our hypothesis using three statistical models: Pooled OLS Model: this treats the panel data as a single entity and ignores individual heterogeneity. Fixed Effects (FE) Model: accounting for individual characteristics that tend to be constant over time allows one to isolate the relationship between budget allocations and HDI. Random Effects (RE) Model: this presupposes unobserved individual effects as not correlated with the independent variables and is, thus, able to assess variations across entities.

Using the Hausman Test, it can determine the correct model as this is used to assess whether unique errors (individual-specific effects) are correlated with the regressors. A significant result implies a preference towards the fixed effects, since estimators based on random effects would likely be biased.
One major aspect in this regard would be the autocorrelation-the correlation of the residuals over time. Using the Durbin-Watson statistic (DW), as defined by the equation:

$$d = \frac{\sum_{t=2}^{T}(e_t - e_{t-1})^2}{\sum_{t=1}^{T} e_t^2} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(1)$$

Then diagnosing potential autocorrelations within regression models. If autocorrelation is found to be significant, I would adjust the method by applying robust standard errors. For the assurance of robustness in findings, I would subject the results to several other tests, namely: Different model specifications to establish the invariance of our results. Test independent variables for multicollinearity using Variance Inflation Factor (VIF) calculations to ascertain that relationships are not distorted. Employ the implementation of lagging variables to measure the possible delayed effects of budget allocations on improvements in HDI.

Whether the estimates derived from the fixed effects or random effects can give their share of insight regarding the dynamics of the relationship between budget allocations and HDI scores. A positive statistically significant coefficient shows that increased education funding improves the HDI scores; hence, such an outcome illustrates that targeted allocation of resources works effectively.

In summary, panel data analysis constitutes a strong methodological structure for understanding the influence of budget allocations by INGOs on HDI within LLMICs. By engaging fixed effects to address time-invariant factors and rigorously testing for autocorrelation as well as the adequacy of the model through the Hausman

test, this analysis offers reliable insights into improving decision-making regarding international investments in education. Ultimately, the objective is to clarify how financial commitments in education lead to broader human development results, thereby influencing future policies and resource allocations with the greatest benefit.

For the qualitative data, thematic analysis was performed, in which questionnaire responses were coded to identify repeated patterns related to the INGOs' strategic decision-making processes. All data coding and analysis systematically conducted using computer software, namely Excel, SPSS, and Forms.

5. Results

The results of the analysis were detailed including quantitative and qualitative analyses' results so that findings can be well interpreted

5.1. Quantitative Results

Based on the analyses and tests, the fixed-effects model, utilizing 2,159 observations across 76 cross-sectional units with panel durations ranging from 1 to 33 years, indicates a statistically significant positive relationship between INGO total budgets and HDI (coefficient = 3.86×10^{-10}, p=0.0306). The model's constant term is highly significant (p<0.0001), and the mean HDI is approximately 0.5156 with a standard deviation of 0.1157. However, the within R-squared remains quite low at about 0.036, suggesting limited explanatory power within units over time. The Durbin-Watson statistic (~0.0466) indicates severe autocorrelation, corroborated by the Wooldridge test, which confirms the presence of first-order autocorrelation in the residuals. Cross-sectional dependence is strongly evidenced by the Pesaran CD test (z=194.354, p<0.0001). Heteroskedasticity is also apparent, with the Breusch-Pagan test indicating significant variance heterogeneity across units (Chi-square=18588.5, p<0.0001), and residuals deviate from normality, as shown by the Hausman test (p≈0.0052) and the residual normality test (p≈4.6×10^{-13}). The joint significance of regressors is supported by the F-test (F=4.6776, p≈0.0337), and the group intercepts differ significantly across units (Chi-square=4.42419, p≈0.0354). Overall, while the positive coefficient aligns with the hypothesis that higher INGO education expenditures are associated with higher HDI, the econometric issues—particularly autocorrelation, heteroskedasticity, and cross-sectional dependence—limit the reliability of this estimate.

The random-effects generalized least squares (GLS) model, also based on 2,159 observations with the same units and time span, yields a similar positive and significant estimate for INGO total budgets (coefficient ≈ 3.66×10^{-10}, p=0.0354). The constant term remains significant (p<0.0001). The rho value (~0.9632) indicates a dominant between-unit variance component, with the model capturing substantial between-unit heterogeneity. The within R-squared remains low (~0.036), reflecting limited within-unit explanatory power. The Durbin-Watson statistic (~0.0466) and Wooldridge autocorrelation test confirm persistent autocorrelation issues. Cross-sectional dependence is again confirmed via Pesaran's CD test (z≈194.354, p<0.0001). Heteroskedasticity is strongly indicated by the Breusch-Pagan test, and residuals show significant deviations from normality, as reflected by the Hausman test (p≈0.0052). The model's likelihood is higher than the pooled OLS, but the Hausman test suggests that the random-effects estimator may be inconsistent if fixed effects are truly present. Nevertheless, given the evidence, the random-effects model supports the positive association between INGO expenditure and HDI, though the same econometric limitations apply.

The pooled OLS model, utilizing the same data, produces a non-significant and negative coefficient for INGO total budgets (≈-1.57×10^{-10}, p=0.2208). The constant term is significant (p<0.0001), but the overall model explains very little variation in HDI (R-squared ≈ 0.0045). The Durbin-Watson statistic (~0.00905) indicates severe autocorrelation, and the Wooldridge test confirms its presence. Cross-sectional dependence is evident from Pesaran's CD test (z≈217.903, p<0.0001). Heteroskedasticity tests (White's and Wald) reveal strong variance heterogeneity, with p-values effectively zero. Residuals deviate markedly from normality, and structural break tests suggest potential instability at observation 39,02. The relationship appears non-linear, as non-linearity tests yield significant results (p≈0.0003). These issues, combined with the very low explanatory power, make the pooled OLS estimates unreliable for inference about the effect of INGO budgets on HDI.

Table 1. Panel analysis for HDI scores in LLMICs and total INGOs funding.

###	Const	INGOsTotal	Mean dependent var	Sum squared resid	LSDV R-squared	Log-likelihood	Schwarz criterion	rho	F(1, 75)
Fixed-	0.501653	3.86E-10	0.515591	5.69942	0.80275	3345.542	−6099.924	0.96325	4.7
Random-	0.502181	3.66E-10	0.515591	30.20082		1545.471	−3075.587	0.96325	
OLS	0.521267	−1.56983e-	0.515591	28.76478	0.00449	1598.061	−3180.767	0.99011	1.5

###	Std. Error / z / p-value		S.D. dependent var	S.E. of regression	Within R-squared	Akaike criterion	Hannan-Quinn	Durbin-Watson	P-value (F)
Fixed-Effects Model	0.00644473 77.84 <0.0001 ***	1.78E-10 2.163 0.0306 **	0.115713	0.052321	0.03596	−6537.084	−6377.189	0.04662	0
Random-Effects Model	0.0138012 36.39 <0.0001 ***	1.74E-10 2.103 0.0354 **	0.115713		0.1183	−3086.942	−3082.789	0.04662	
OLS Model	0.0157123 29.4 <0.0001 ***	1.17E-10 0.397 0.6913	0.115713	0.11548	0.00402	−3192.122	−3187.969	0.00905	0.2

In summary, the static models, both fixed-effects and random-effects, consistently show a positive and statistically significant association between INGO education expenditures and HDI. However, pervasive econometric issues—autocorrelation, heteroskedasticity, cross-sectional dependence, and residual non-normality—raise concerns about the robustness and causal interpretation of these findings. The pooled OLS results are particularly weak and unreliable. The significant Hausman test suggests potential inconsistency in the random-effects estimates if fixed effects are present. The overall evidence supports the hypothesis (H1) that increased INGO education budgets are associated with higher HDI levels, but these relationships should be interpreted with caution due to the identified methodological limitations. Further robustness checks, alternative specifications, or advanced modelling approaches would be necessary to strengthen causal claims.

5.2. Qualitative Results

In relation to these quantitative results, the qualitative analysis sought to provide further insight into the complexities. The qualitative data generated from the questionnaires were subjected to thematic analysis, focused particularly on identifying common themes and patterns concerning budget allocation choices influenced by development factors. Through the analysis of qualitative data, applications, and software such as Forms have made possible a systematic and meticulous interpretation of the data.

Credibility and validity are then enhanced by triangulation whereby qualitative data was cross validated by quantitative data. This will, therefore, validate the findings in terms of budgeting practices and their relationship with development indicators.

The questionnaire captured various roles and positions related to budget allocation for education projects among organizations mainly UNDP, UNICEF, TGH, ICRC, and AKF. Positions such as project managers, field officers, and program coordinators focused on education, protection, and infrastructure reflect a concerted effort among several organizations to address educational and humanitarian needs in specific areas.

In conclusion, the quantitative provided a steady groundwork for further qualitative inquiry. By providing a sound rationale for the qualitative component, this analysis is focused on elucidating the complexities behind statistical relationships and understanding how INGOs could most effectively advance human development through targeted educational interventions.

The survey results reveal that a significant majority of respondents, have a total budget of less than $100,000. Furthermore, when it comes to funding for education projects, approximately 44.4% of these respondents

allocate less than 10% of their overall budget to such initiatives. This indicates a limited investment in education relative to their total financial resources. As for the funding categories, the most significant category receiving funding was "Infrastructure Development (schools, classrooms)" followed by "Teacher/Trainers training and capacity building".

A significant majority of respondents, regard GDP growth rates and HDI as a somewhat important factor when determining their budget allocations. This indicates that economic performance plays a notable role in influencing financial decision-making, highlighting the interconnectedness between national economic trends and organizational budgeting strategies. The questionnaire revealed that a significant portion of participants, reported having some familiarity with the implications of the HDI. This suggests that a majority of individuals have at least a basic understanding of how the HDI measures and reflects the well-being and development of countries, indicating a growing awareness of important socioeconomic indicators among the population.

A significant portion of respondents reported collaborating with local governments to secure funding for their initiatives. This collaboration highlights the importance of partnerships between organizations and governmental bodies in facilitating financial support for various projects and programs. When assessing the effectiveness of these collaborations, six from ten respondents rated them as neutral. This indicates a neutral perception of the impact that working alongside local governments has on achieving desired outcomes and may enhance the overall success of funded initiatives.

Additionally, respondents identified several key factors that influence budget allocations. A strong consensus emerged agreeing on the importance of needs assessment methods in determining funding priorities. Other influential factors included the requirements set by donors, which play a critical role in shaping how budgets are allocated, and resources are distributed.

In reviewing plans for education budget allocations, a significant majority of respondents express intentions to increase funding for education projects. This reflects a strong commitment to enhancing educational resources and initiatives. Meanwhile, participants indicate their goal is to maintain current funding levels, suggesting a desire to sustain existing programs without introducing cuts. Together, these findings highlight a general trend towards prioritizing educational investment while also acknowledging the importance of stability in funding. The total budget allocated to education projects reveals that a significant majority of respondents operate with a budget of less than $100,000. Among the funding categories, the most substantial investment is directed towards "Teacher/Trainers training and capacity building," indicating a recognition of the importance of enhancing educational quality through improved educator skills.

Regarding macroeconomic factors, the GDP growth rates play a crucial role in budget allocations, respondents acknowledging their significance. This suggests that economic health is a key consideration in determining funding levels for education. Additionally, familiarity with the HDI is notably high, participants reported being somewhat familiar with its implications. This awareness may influence how organizations perceive the relationship between educational investments and broader development outcomes.

Collaboration with local governments is another critical aspect, respondents actively engaging in partnerships. The effectiveness of these collaborations is recognized, part of respondents rated them as neutral. Such partnerships might enhance resource mobilization and improve project outcomes. Furthermore, factors influencing budget allocations include needs assessment methods, with a striking 88.9% of respondents agreeing on their importance, alongside donor requirements, which underscores the multi-faceted nature of funding dynamics in education.

Looking ahead, there is a positive trend toward increasing investment in education. A majority (51.9%) of organizations plan to boost funding for educational projects, participants indicated the intention to maintain their current funding levels. This signals a growing recognition of the need for enhanced financial support in the education sector, driven by both internal assessments and external economic conditions. Overall, the findings indicate a complex landscape where budgetary constraints, macroeconomic indicators, and collaborative efforts shape educational funding decisions. The data reveals a collective desire for increased

investment in education, underpinned by a strategic approach to partnership and assessment of funding needs. This holistic understanding is crucial for stakeholders aiming to enhance the effectiveness of education projects and ultimately improve educational outcomes.

The thematic analysis of qualitative data identifies a cluster of related themes informing budget allocation decisions for education projects among INGOs. One prominent theme is macroeconomic indicators influencing allocations, with respondents stating GDP growth rates and the Human Development Index (HDI) valued as measures informing funding priorities and conscious of a broader development context. Another major theme includes needs assessment and donor requirements, which have been regarded highly as guidelines offered to resource allocations, emphasizing the strategic and evidence-driven approach to budgeting. Collaboration with local governments emerges as yet another important theme, as most organizations enter into such partnerships to access the funds, but perceptions about the effectiveness of such collaborations remain neutral, which indicates the potential area for strengthening these relationships. In addition, an upward trend toward improved investment in education develops. This was indicated as the majority of respondents plan to garner more money or keep their commitments regarding level of investment, signalling a collective understanding about education's paramount role in development. All in all, the findings indicate a composite manoeuvre of economic conditions, strategic assessments, and collaborative efforts influencing the manner in which INGOs prioritize and allocate resources toward education.

6. Discussion

6.1. Interpretation of Study Results

The quantitative and qualitative analyses provide a rich tapestry of findings regarding the nature and relationship of educational budget allocation from INGOs with respect to the HDI in LLMICs. This discussion will therefore draw broader policy, practical, and future research implications from their combination of the quantitative results with qualitative insights.

The application of both fixed-effects and random-effects models for analysis illustrates a consistent positive and statistically significant relationship of total budgets of IGOs to HDI in LMICs, which supports the hypothesis that the higher the INGO investment, the higher the human development. This positive association aligns with prior research indicating that increased educational investments by INGOs can contribute to improved development outcomes (Spar & La Mure, 2003). The coefficients that were estimated for both models were very similar, at approximately $3.7\text{-}3.9 \times 10^{-10}$, and the p-values also were quite significant, at ~ 0.030-0.035, which indicates the robustness of models across such specifications. However, several econometric problems tend to undermine the validity of these results. This is reflected through the very low within R-squared (~0.036), which means the model shows a really poor explanatory power and further adds that there would be severe autocorrelation (Durbin-Watson ≈ 0.0466), cross-sectional dependence (Pesaran CD), heteroskedasticity (Breusch-Pagan), and residual non-normality in the results. Furthermore, the Hausman test suggests a possible inconsistency in the random-effects estimates when using fixed effects, complicating causal interpretations. The pooled OLS results are quite weak and not significant, with other very serious problems like non-linearity, autocorrelation, and heteroskedasticity, rendering them very unreliable. The challenges of autocorrelation and heteroskedasticity are common in panel data analyses of development indicators (Baltagi, 2008). Recognizing these limitations emphasizes the need for advanced econometric techniques to improve causal inference. Overall, even though the positive relationship is consistent with theoretical expectation, the pervasive econometric problems-such as autocorrelation and heteroskedasticity-all cast doubt on the robustness of the estimated effects. These will need to be addressed using more advanced models, such as robust standard errors, dynamic panel models, or instrumental variables, to substantiate casual inference and validate the correlations observed. Results indicate a potentially relevant association but should be interpreted with caution regarding further methodological refinement.

The qualitative findings point to a subtle landscape of educational funding among INGOs. Most organizations are operating with a budget of less than $100,000, with an allocation of less than 10% for education, mostly fixed on infrastructure and capacity building. However meagre the amount, the need assessment is highly

prioritized (88.9%) along with the donor requirements, indicating a strategic, evidence-based criterion for budgeting. Macroeconomic factors such as GDP growth rates and the HDI highly influence funding decisions, signifying the sensitization to wider contexts in development. The alliances with the local governments also show much collaboration (63-60%) but with neutral perceptions of the effectiveness of working with them, indicating there is still room for strengthening these partnerships. These findings resonate with Utting (2015), who highlights how macroeconomic conditions and strategic priorities shape INGO funding decisions in fragile contexts. Overall, it is evidenced that over half targets to increase investments towards education, which reflects a positive trend of investment towards education, underscoring the development importance that this sector carries. Therefore, it is clear that these findings are representative of a complex interplay within which economic conditions, strategic assessments, and partnerships define the priority given to education initiatives by INGOs. In understanding economic indicators and collaborative efforts, it might be inferred that there is a strategic orientation toward maximizing impact within resource curtailments, indicating the importance that the sector plays in human development.

6.2. Interpretation of Proposed Theoretical Framework

Themes emerging from the analysis of responses by INGOs have been coded qualitatively, thus emphasizing the quantitative findings with respect to a richer understanding of the factors that affect budget allocation decisions. It is also significant that 63% of the respondents operate their budgets in below $100,000, while 44.4 percent allocate under 10% of their total budget to education. This gives credence to the assumption that underfunding for education is systemic when viewed against other priorities and that lowers the potential long-term benefits of such funding toward human development. It endorses the fact that by education budgets or the major source of funding is still the part of almost the whole understand in most global aspects deemed the most important for quality education and recognizes that upping the skills of educators is key to improvements in outcomes. However, such absolutely minor amounts of the budget assigned to educational purposes do lead one to wonder about viability and up scalability of educational intervention efforts.

In the opinion of 77.8% of respondents, GDP growth rates are very important; hence, this indicates a common understanding of the macroeconomic context in which these organizations do operate. This demonstrates a broader trend, that economic circumstances do have an influence in straightforward terms upon the funding decisions and link education investments to their national earnings through the economy's health. Moreover, 68.7% of respondents are familiar with HDI, signifying an understanding of the broader view on educational funding effects on human development, which can yield better informed decisions. The influence of macroeconomic indicators like GDP growth on development investments is well documented (Lewis, 1954; Sachs, 2005), emphasizing that economic stability fosters greater investment in social sectors. Collaboration with local governments, as reported by 60% of respondents, emphasizes that mobilizing resources is a partnership issue. Of those saying they formed partnerships, 50.9% of them classify their experiences as neutral. This suggests that strategic partnerships alone may expand these educational initiatives' reach and impact. This clearly indicates a significant area of inquiry for the future: the dynamics of working together between INGOs and local people, with the ways of improving educational outcomes through these partnerships. The mixed perceptions of collaboration effectiveness mirror findings by Chowdhury et al. (2020), who suggest that partnerships are vital but require strategic strengthening for optimal impact.

6.3. Study Limitations

There are some limitations of this study that need to be given careful consideration. First, the sample size may not be sufficiently representative of the diverse spectrum of INGOs active in educational projects. Considering the large variation of organizations with differing mission, approaches, and operational contexts, this limitation can be significant in influencing the generalizability of findings. A more diverse sample would add strength to the findings. The limited sample reflects the challenges noted by Baser and Hasnath (2022), who emphasize that diverse organizational missions and contexts necessitate broader samples for robust generalizations.

Second, the study makes heavy use of self-reported data provided by various stakeholders, adding an element of possible bias. Stakeholders may respond according to their personal interests or organizational agendas rather than objective realities, thereby skewing the results. Subjective data raise concerns about the interpretation of results. Then, the fact that only five countries were included also limits the external validity of the results. The unique socio-political context, cultural dynamics, and educational system in each country may not be adequately investigated, limiting the understanding of how these will affect the association between educational funding and development outcomes. Self-reported data are subject to biases, as discussed by Tzifakis et al. (2017), which can influence the reliability of stakeholder perceptions in evaluating funding strategies.

Lastly, although the quantitative analysis establishes a correlation between educational funding by INGOs and development outcomes, it does not speak to issues of causality. As highlighted by Wooldridge (2010), establishing causality in observational data remains challenging; longitudinal or experimental designs are needed for more definitive conclusions. Such a limitation calls for more research geared toward addressing the mechanisms that inform the relationship and thus gain more insight into the larger picture of INGOs' impact in the educational sector.

6.4. Study Contributions

These findings from the study show that educational investment and improvement of the factors resulting in human development outcomes and those associated with it are complex. Quantitatively, education budget allocations are shown to affect certain contexts positively; however, these contexts come to context with the qualitative insight, which reveals the subtle nuances shaping funding decisions. This aligns with Utting (2015), who advocates for integrated, multidimensional assessments of INGO contributions to sustainable development. For the stakeholders moving forward, it is, therefore, imperative that they adopt a holistic approach to educational funding, incorporating quantitative assessments and qualitative insights together to develop strategies to strengthen and augment educational outcomes. This type of encompassing understanding will be critical in achieving sustainable development with meaningful increases in HDI, especially in less-resourced settings where educational interventions can indeed prove to be transformational. The findings reinforce the importance of combining quantitative and qualitative insights, as recommended by Chowdhury et al. (2020), to inform strategic planning. Continuing to understand the contextual factors that constitute and influence these dynamics will further advance research on the degree to which educational investments actually relate to what they promise-managing needs of the communities toward which they direct their concern.

7. Conclusions

The comprehensive analysis being offered by this study on the relation between INGO educational inputs and human development results with qualitative perspectives from organizational practitioners gives scads of nuanced insights. The quantitative results from fixed-effects and random-effects models show a statistically significant positive association between total budgets of INGOs and HDI; thus, when most INGO resources are invested into improving education, they end up being associated with higher levels of human development, but with very serious econometric problems-autocorrelation, heteroskedasticity, and cross-sectional dependence-thereby posing a serious threat to the robustness and causal inference of the findings. Very low within R-squared values indicate that great proportions of HDI variation are left unexplained by the models, thus unveiling the complexity of developmental processes together with the limitation of applying such purely quantitative methods.

This pooled OLS model further weakens the evidence because it demonstrates a non-significant negative relationship. This untrustworthy nature results from severe autocorrelations, heteroskedasticities, and potential structural breaks. Indication of inconsistency in the random-effect estimates, according to the Hausman test, acts as a warning toward interpretation of results. Econometry, on the other hand, will jointly consider these limitations and reveal that there was a positive association between the two parameters under review; however, the positive correlation might be due to biases or unaccounted confounding factors.

Complementing the quantitative findings, qualitative insights reveal an overall scenario within which INGO budgets are mostly small with regard to education, in which most of them allocate less than 10 % of the total budget to education. Mostly, the decision makers put into consideration factors from the macroeconomic level such as GDP growth and the awareness of HDI while planning budgets and often collaborate with local governments, although the efficiency of this collaboration is thought to differ. The needs assessment process and donor requirements define the funding decisions as strategic and context dependent. This hopeful picture of increased educational funding reflects resource constraints among the respondents, but such careful balancing of priorities indicates seriousness.

In a nutshell, the study finds INGO educational investment-associated human development in a positive vein, but great methodological caveats should caution against overinterpretation. The qualitative evidence augments understanding by revealing operational realities, contextual factors, and strategic considerations governing educational funding. Future research should embrace stronger modelling techniques and pursue deeper causative pathways to grasp the complexities underlying development outcomes even better. The findings overall indicate the need for careful multidimensional approaches to understanding and thus improving the impact of INGO educational initiatives with the larger development framework.

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References

Akerlof, G. A. (1970). The market for "Lemons": quality uncertainty and the market mechanism. The Quarterly Journal of Economics, 84(3), 488. https://doi.org/10.2307/1879431.

Alhousseiny, M., & Atar, E. (2021). The evolution of the Syrian humanitarian NGOs and external challenges. AVESİS. https://avesis.erdogan.edu.tr/yayin/c4bbcda5-d4c7-4cd4-9370-8b6dc5be1fa9/the-evolution-of-the-syrian-humanitarian-ngos-and-external-challenges.

Allard, G. (2025). The influence of government policy and NGOs on capturing private investment. www.academia.edu. https://www.academia.edu/67947496/The_Influence_of_Government_Policy_and_Ngos_on_Capturing_Private_Investment.

Arieff, A., Weiss, M. A., & Jones, V. C. (2010). The Global Economic Crisis: impact on Sub-Saharan Africa and global policy responses. http://fpc.state.gov/documents/organization/128815.pdf.

Barry, C. M., Clay, K. C., & Flynn, M. E. (2012b). Avoiding the spotlight: human rights shaming and foreign direct investment1. International Studies Quarterly, 57(3), 532–544. https://doi.org/10.1111/isqu.12039.

Baser, S., & Hasnath, S. A. (2022). The rise and fall of the NGOs in Bangladesh: What does the future hold? In IntechOpen eBooks. https://doi.org/10.5772/intechopen.107855.

Bhandari, M. P. (2017b). Role of Nongovernmental Organization in Bangladesh. Are They Challenging the Government Power? A Case Study from Bangladesh Rural Advancement Committee (BRAC). SocioEconomic Challenges, 1(4), 6–22. https://doi.org/10.21272/sec.1(4).6-22.2017.

Borzaga, C., Salvatori, G., Bodini, R., International Labour Organization, & European Research Institute on Cooperatives. (2017). Social and solidarity economy and the future of work. International Labour Organization. https://www.ilo.org/publns.

Chowdhury, T. A., Das, A. B., Chakraborty, L., & Barai, M. K. (2020b). NGOs for Development: Experience of Bangladesh. In Springer eBooks (pp. 351–380). https://doi.org/10.1007/978-981-15-1683-2_12.

De Janvry, A., & Sadoulet, E. (2002). World poverty and the role of agricultural Technology: Direct and indirect effects. The Journal of Development Studies, 38(4), 1–26. https://doi.org/10.1080/00220380412331322401.

Dornbusch, R., & Fischer, S. (1978). Macroeconomics. McGraw-Hill Companies.

Egorov, V., & Inshakov, A. (2021). Cooperation as an integral part of the social and solidarity economy (SSE). SHS Web of Conferences, 94, 01009. https://doi.org/10.1051/shsconf/20219401009.

Elkington, J. (1998) Partnerships from Cannibals with Forks the Triple Bottom Line of 21st Century Business. Environmental Quality Management, 6, 37-51. - References - Scientific Research Publishing. (n.d.). https://www.scirp.org/reference/referencespapers?referenceid=2291101.

Habakkuk, H. J., & Rostow, W. W. (1961b). The Stages of Economic Growth. A Non-Communist manifesto. The Economic Journal, 71(283), 601. https://doi.org/10.2307/2228926.

Hara, M. (2021, December 27). BOP Business on Poverty Reduction in Developing Countries: Effects and Strategies. https://www.gbis.ch/index.php/gbis/article/view/29.

Hammond, A. L., & Institute, W. R. (2007b). The next 4 billion: Market Size and Business Strategy at the Base of the Pyramid. World Resources Institute.

Hellgren, A. (2015). NGOs as BOP market entry partners in state-corporatist China. https://www.semanticscholar.org/paper/NGOs-as-BOP-market-entry-partners-in-China-Hellgren/346e6b063565b5fb39c549f69b4868501e5a0b7b.

Annual Report 2022. (2024, June 27). International Committee of the Red Cross. https://www.icrc.org/en/document/annual-report-2022.

International Fund for Agricultural Development (IFAD). (n.d.). IFAD. https://www.ifad.org/en/.

World Employment and Social Outlook: Trends 2021. (2024, February 1). International Labour Organization. https://www.ilo.org/publications/world-employment-and-social-outlook-trends-2021.

Jansson, O., & Nilsson af Sillén, A. (2013). Market barriers in the bottom of the pyramid: Case studies in Tanzania and Kenya. Kristianstad University International Business. https://researchportal.hkr.se/files/35173924/FULLTEXT01.pdf.

Janti, S. & Brad, I. (2020). Annual Report, Save the Children.

Kaldor, M., & Anheier, H. K. (2022b). Interview: Mary Kaldor and Helmut K. Anheier. Global Perspectives, 3(1). https://doi.org/10.1525/gp.2022.33927.

Kahneman, D., Slovic, P., & Tversky, A. (1982). Judgment under uncertainty: Heuristics and Biases. Cambridge University Press.

Karnani, A. G. (2006). Mirage at the bottom of the pyramid. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.924616.

Khieng, S., & Dahles, H. (2014b). Resource dependence and effects of funding diversification strategies among NGOs in Cambodia. VOLUNTAS International Journal of Voluntary and Nonprofit Organizations, 26(4), 1412–1437. https://doi.org/10.1007/s11266-014-9485-7.

Hammond, A. L. M. W. J. J. T. (n.d.). The next 4 billion: market size and business strategy at the base of the pyramid. World Bank. https://documents.banquemondiale.org/curated/fr/779321468175731439/The-next-4-billion-market-size-and-business-strategy-at-the-base-of-the-pyramid.

Lewis, W. A. (1954). Economic Development with Unlimited Supplies of Labour. Manchester School, 22(2), 139–191. https://doi.org/10.1111/j.1467-9957.1954.tb00021.x.

London, T. (2008). THE BASE-OF-THE-PYRAMID PERSPECTIVE: a NEW APPROACH TO POVERTY ALLEVIATION. Academy of Management Proceedings, 2008(1), 1–6. https://doi.org/10.5465/ambpp.2008.33716520.

London, T., & Hart, S. L. (2004). Reinventing strategies for emerging markets: beyond the transnational model. Journal of International Business Studies, 35(5), 350–370. https://doi.org/10.1057/palgrave.jibs.8400099.

Menden, A., Van Der Vleuten, N., Pirzer, C., Von Blomberg, I., Romijn, B., Jahn, C., & Duffy, S. (n.d.). NGO and company partnerships for inclusive business. https://endeva.org/wp-content/uploads/2019/06/ngo-and-company-partnerships-for-inclusive-business.pdf.

Morton, B. (n.d.). Possibilities for South-South cooperation? In An Overview of International NGOs in Development Cooperation (pp. 325–329).

Najeb, M. (2014). A contribution to the theory of economic growth: Old and New. Journal of Economics and International Finance, 6(3), 47–61. https://doi.org/10.5897/jeif2013.0518.

New index shows governments worldwide stoked an inequality explosion during COVID-19 pandemic | Oxfam International. (2022, October 21). Oxfam International. https://www.oxfam.org/en/press-releases/new-index-shows-governments-worldwide-stoked-inequality-explosion-during-covid-19.

Oxfam GB | Oxfam response to Global Report on Food Crises. (2022, May 4). Oxfam GB. https://www.oxfam.org.uk/media/press-releases/oxfam-response-to-global-report-on-food-crises/?pscid=ps_ggl_gr_Google+Grants+-+Press+Releases+(DSA)_Press+Releases+(DSA)&gad_source=1&gclid=CjwKCAjw47i_BhBTEiwAaJfPppazxmagd1jBkz_VU6ChZNfalLrPI4w9GAip_I9JzKs7z9K_ZNMjfRoC5o8QAvD_BwE&gclsrc=aw.ds.

Prahalad, C., & Hart, S. L. (2002, January 10). The fortune at the bottom of the pyramid. Strategy+Business. https://www.strategy-business.com/article/11518.

Quazi, R. M., Williams, M. F., Baldwin, R., Vesey, J., & Ballentine, W. E. (2014b). Impact of foreign aid on foreign direct investment in South Asia and East Asia. International Business Research, 7(12). https://doi.org/10.5539/ibr.v7n12p44.

Rajjoub, R. N. (2020). The Impact of Syrian NGOs On Civil Society In Syria & Integration With International System. Hku-tr. https://www.academia.edu/44619519/the_impact_of_syrian_ngos_on_civil_society_in_syria_and_integration_with_international_system.

Ravallion, M. (2016). The economics of poverty: History, Measurement, and Policy. Oxford University Press.

Rauter, R., Globocnik, D., Perl-Vorbach, E., & Baumgartner, R. J. (2018). Open innovation and its effects on economic and sustainability innovation performance. Journal of Innovation & Knowledge, 4(4), 226–233. https://doi.org/10.1016/j.jik.2018.03.004.

Roy, I. (2017). Contribution of NGOs for Socio-Economic development in Bangladesh. Science Journal of Business and Management, 5(1), 1. https://doi.org/10.11648/j.sjbm.20170501.11.

Scoones, I. (1998). Sustainable Rural Livelihoods: A Framework for analysis. ResearchGate. https://www.researchgate.net/publication/251873585_Sustainable_Rural_Livelihoods_A_Framework_for_Analysis.

Santos, T. D. (2019). The structure of dependence. In Routledge eBooks (pp. 95–104). https://doi.org/10.4324/9780429311208-11.

Sen, A. (1999). Development as freedom. Oxford University Press (UK).

Simon, H. (1972) Theories of Bounded Rationality. In McGuire, C.B. and Radner, R., Eds., Decision and Organization. Elsevier, Amsterdam, 161-176. - References - Scientific Research publishing. (n.d.). https://www.scirp.org/reference/referencespapers?referenceid=2129523.

Solow, R. M. (1956b). A contribution to the theory of economic growth. The Quarterly Journal of Economics, 70(1), 65. https://doi.org/10.2307/1884513.

Spar, D. L., & La Mure, L. T. (2003). The Power of Activism: Assessing the impact of NGOs on global business. California Management Review, 45(3), 78–101. https://doi.org/10.2307/41166177.

Smith, A. (2010). The wealth of nations: The Economics Classic - A Selected Edition for the Contemporary Reader. John Wiley & Sons.

Suliman, F., Khwanda, H., & Murthy, R. V. R. (2024). Travails of conflict and economic development in Syria. International Critical Thought, 14(1), 97–118. https://doi.org/10.1080/21598282.2024.2332972.

Giorgi, M. (2019). The role of Non-Governmental Organizations in the process of international treaty making. https://www.redalyc.org/journal/4027/402771737005/html/.

Tennyson, R., Harrison, A., & Wisheart, R. (2008). Emerging opportunities for NGO-business partnerships: Feedback from the Cross Sector Partnership Project. Accenture Development Partnerships, International Business Leaders Forum, & World Vision International.

Teegen, H., Doh, J. P., & Vachani, S. (2004b). The importance of nongovernmental organizations (NGOs) in global governance and value creation: an international business research agenda. Journal of International Business Studies, 35(6), 463–483. https://doi.org/10.1057/palgrave.jibs.8400112.

Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs. (n.d.). https://sdgs.un.org/2030agenda.

Toye, J. F. J., & Toye, R. (2004). The UN and global political economy: trade, finance, and development. Choice Reviews Online, 42(04), 42–2330. https://doi.org/10.5860/choice.42-2330.

Tzifakis, N., Petropoulos, S., & Huliaras, A. (2017). The impact of economic crises on NGOs: the case of Greece. VOLUNTAS International Journal of Voluntary and Nonprofit Organizations, 28(5), 2176–2199. https://doi.org/10.1007/s11266-017-9851-3.

UNESCO-IIEP. (n.d.). UnescoPhysicalDocument. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000186980.

United Nations Industrial Development Organization (2019). Enhancing competitiveness of SMEs. https://www.unido.org.

United Nations. (2022, September 8). Human Development Report 2021-22. Human Development Reports. https://hdr.undp.org/content/human-development-report-2021-22.

United Nations. (2013, September 8). Human Development Report 2013-24. Human Development Reports. https://hdr.undp.org/content/human-development-report-2013-14.

Utting, P. (2015, April 1). Social and Solidarity Economy: Beyond the Fringe? Introductory chapter. Socioeco.org. https://www.socioeco.org/bdf_fiche-document-3835_en.html.

Women Entrepreneurs Finance Initiative. (n.d.). Women Entrepreneurs Finance Initiative | Women Entrepreneurs Finance Initiative. https://www.we-fi.org/.

Wallerstein, I. (1974). The rise and future demise of the World Capitalist System: Concepts for Comparative analysis. Comparative Studies in Society and History, 16(4), 387–415. https://doi.org/10.1017/s0010417500007520.

Youth empowerment. (n.d.). UNDP. https://www.undp.org/governance/youth-empowerment.

Yunus, M. (1999). Banker to the poor: Micro-lending and the battle against world poverty. PublicAffairs.