CORRELATIONAL ANALYSIS OF THE EDUCATIONAL IMPROVEMENT INDEX (IME[1]) VS. ECONOMIC AND SOCIAL FACTORS - EXECUTIVE REPORT

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Summary

This project examines the correlation between the Education Improvement Index (IME[1]) and various macroeconomic and social factors in the Dominican Republic, providing a foundation for INICIA Educación's investment in strengthening the country's educational system. The methodology involves both bivariate and multivariate correlational analyses to identify social and macroeconomic indicators with significant direct and indirect relationships to the IIE. Findings show that as the IIE improved, the economy also advanced, evidenced by increases in the Human Development Index (HDI) and Gross Domestic Product (GDP) per capita. Additionally, the GINI coefficient decreased, reflecting improved income distribution across the country.

[1] In this document, we refer to the Educational Improvement Index by its Spanish acronym, IME (Indice de Mejora Educativa).

Introduction

Sustainable Development Goal Four (SDG 4).

The United Nations Sustainable Development Goal #4 seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. This goal includes 10 specific targets that provide a transformative roadmap for achieving a sustainable education agenda. Within the SDG framework, indicators serve to measure how each unit—be it a student, school, country, or region—is progressing toward these targets.

Macroeconomic and social impact of education

Education is a fundamental human right, a powerful catalyst for development, and one of the most effective tools for reducing poverty and enhancing health outcomes, while also fostering gender equality, peace, and stability. It consistently delivers high returns on income and remains the most critical factor in ensuring equal opportunities. For individuals, education drives employment, boosts income, improves health, and reduces poverty. Globally, each additional year of schooling raises hourly earnings by an average of 9%. At the societal level, education fuels long-term economic growth, drives innovation, strengthens institutions, and promotes social cohesion. Investing wisely and effectively in people is essential to building the human capital needed to eradicate extreme poverty (World Bank, 2019).

The social impacts of education also contribute to the strengthening of stable democratic systems and the protection of the environment. Research consistently highlights education as essential in modern democracies, as it broadens perspectives and enhances individuals' ability to make rational, informed voting decisions aligned with goals of social progress.

Economically, a more highly qualified workforce directly improves both individual and collective productivity, fostering innovation and technological development. Early economic growth models largely attributed output expansion to capital accumulation dynamics; however, these models overlooked the primary growth driver—technology—by treating it as an external factor (World Bank, 2019). Numerous studies support these findings. For example, a Deloitte project (2016) demonstrated that a well-educated labor force tends to be more productive, more likely to innovate, and better equipped to leverage available resources.

On an individual level, education translates into higher wages, with workers compensated for their enhanced productivity. At a societal level, education yields broader benefits, including increased innovation, social cohesion, tax revenues, and other positive externalities

Collectively, these benefits contribute to economic growth and bolster the country’s competitiveness.

Based on all the above we can conclude that improvements in the education system not only foster economic growth, but also enhance social indicators and contribute to the attainment of the Sustainable Development Goal 4.

Education, Human Capital and Economic Growth

The significant dynamism and interest in exploring the relationship between human capital, education, and economic growth are evident in the quantity and quality of research conducted in recent decades.

Theodore Schultz, Edward Deninson, and Gary Becker were pioneers in examining the correlation between economic growth and education in the 1960s (Miró, 2019). Research in the last two years using econometric models in Latin American, European, Asian, and African countries has revealed a direct correlation between education and economic growth, with the illiteracy rate and public spending on education emerging as the educational indicators that have had the most significant statistical impact on GDP per capita (Ordóñez, Martínez, & Zúñiga, 2018; Liao, Du, Wang & Yu; Usman and Adeyinka, 2019; Rangongo & Ngwakwe, 2019; Karambakuwa & Ncwadi, 2019). In addition, the previous projects identified that the higher the educational level of individuals, the better their chances of aspiring to higher incomes. All of the above leads to the conclusion that investing in education, particularly at the secondary (Márquez-Ramos & Mouirelle, 2019) and higher levels, is essential today. However, to achieve this, it is crucial to first ensure adequate coverage and quality in primary and secondary education--a challenge that Latin American countries will continue to face for many years to come. Other recent research projects have demonstrated that, although investment in human capital can have a positive effect on the economy, population growth rates negatively impact economic growth in all analyzed economies (Mudassaar and Rehman, 2019). The majority of previous studies have relied on proxy variables to measure human capital, with some utilizing life expectancy and expenditure on education as indicators. (Khan & Sharif, 2019; Márquez-Ramos & Mourelle, 2019).

Another study approach was developed based on Jones' (2002) semi-endogenous growth theory to compare the economic growth sources in Canada and the United States between 1981-2014. The authors found that most of Canada's growth rate is attributable to capital intensity factors and education-driven domestic human capital growth (Hasanzadeh & Khan, 2019).

It is important to highlight the work of Nikos & Zotou (2013), who conducted a meta-regression analysis of 56 studies encompassing 979 estimates and demonstrated a significant publication selection bias towards a positive impact of education on growth. This finding suggests that there is no universal consensus in the scientific community regarding the correlation between education and economic growth. Additionally, their study revealed that the differences in results are contingent upon national contexts, implying that each correlational model should be examined in light of the specific factors specific to each country. Another significant finding by these authors is that the inclusion of educational

enrollment, test scores, and policy measures (such as the percentage of GDP allocated to education spending) generally results in a positive impact of education on growth, while the use of pupil-teacher ratio, ordinary least squares (OLS) estimation method, and population growth tend to yield a more negative impact of education on growth.

In a recent exploratory study conducted in the country, effectiveness indicators were employed to identify the non-traditional characteristics that distinguish student performance and outcomes in each type of school. After categorizing schools based on their effectiveness, the primary finding of the study is that the lack of funds and the administration's management are the two key factors that differentiate schools with good performance (effective) from those with poor performance, considering similar socio-demographic characteristics (Ramos, Mones, & Del Rosario, 2019). Another conclusion drawn from the study is that management teams (led by the principal) who manage to acquire external resources tend to achieve better performance in their schools compared to those who are unable to secure additional funding. This suggests that principals are key actors within the educational ecosystem who can positively influence indicators and, consequently, the quality of education. However, in the country, the school principal's scope of action typically does not encompass decisions related to systematic hiring and/or dismissal of teachers, hindering the acquisition of suitable personnel committed to providing quality education for students. This factor, as discussed in previous sections, is essential for ensuring quality education.

The preceding paragraphs suggest that any model used to estimate the relationship between education and economic growth factors should carefully define the relevant factors, the estimation method, and the country context.

Human Development Index (HDI)

The Human Development Index (HDI) is a key indicator that combines educational, economic, and social factors to assess overall human progress. Introduced in the inaugural Human Development Report in 1990, the HDI represented a shift toward a human-centered approach to well-being. This approach emphasizes the richness of human lives over mere economic wealth, prioritizing individuals and their opportunities and choices. Rather than presuming that economic growth alone will enhance well-being, the human development framework advocates for improving people's lives directly, positioning income growth as a tool for development rather than as an end goal.

The HDI is a composite index that gauges a country's average progress across three essential dimensions: Life Expectancy, Gross Domestic Product (GDP) per capita, and the Education Index (EI). The Education Index, a crucial component of the HDI, is itself comprised of two indicators: the average years of schooling and the expected years of schooling. Together, these metrics offer a holistic view of human development, balancing economic, health, and educational outcomes.

IME Index

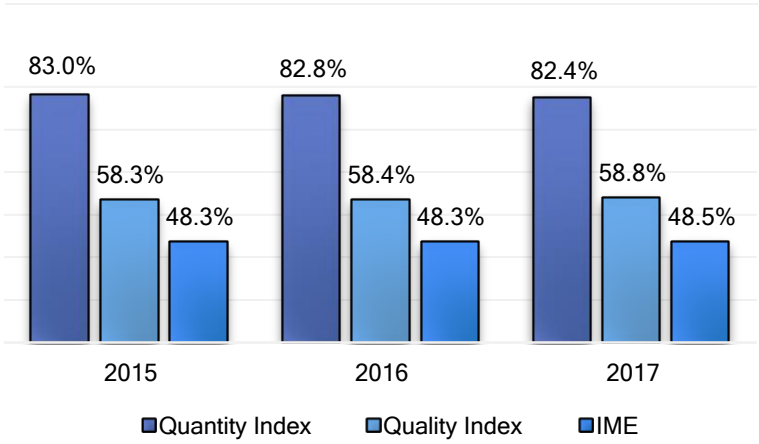
The IME Index, developed by INICIA Educación, is an indicator composed of metrics related to both student enrollment and educational quality. It aims to assess the return on INICIA's investments in the Dominican educational system. The primary data inputs needed for calculating the IME Index are:

1. Quality: results of National Standardized Tests
2. Quantity: weighted coverage rate using the following data/indicators:

- Population: population reported in the national census and/or projections made by the country's National Statistical Office (ONE[2]).
- Enrollment by grade reported by the country's education authorities.
- Graduates: the number of students who successfully complete middle school, including both regular-age and adult students, who are grouped separately.

One of the options for representing the IME is shown in Figure 1, where quantity and quality metrics are also related.

Figure 1. Dominican Republic's IME for the years 2015 to 2017.



Source: INICIA Educación, 2019 IME Report.

Correlation coefficient

Pearson's correlation coefficient is widely employed in econometric studies that examine associations between educational and macroeconomic factors. However, careful consideration is required in its use and interpretation due to certain limitations, requirements, and assumptions.

[2] ONE: Oficina Nacional de Estadística

It is important to understand that any observed correlation (i.e., association) does not imply causation between two variables. Drawing valid inferences about the strength of an association in the population from which data were sampled depends on two key assumptions (Schoeber, Boer, & Schwarte, 2018):

1. As with any statistical inference, data must be drawn from a random or, at minimum, a representative sample. If the data are not representative, conclusions about the broader population will lack validity.
2. Both variables should be random, continuous, and normally distributed.

Addressing the issue of dependence on the measurement scale or units is particularly important in studies linking educational and economic performance. A standardized unit of measurement, such as the standard deviation (s or σ), is necessary to provide scale-free analysis. Using the standardized correlation coefficient addresses this issue.

To interpret a correlation coefficient, the first step is to determine its statistical significance, followed by an evaluation of its magnitude. A statistically significant correlation indicates that a non-zero correlation between two variables is likely to be found in a similar sample, though not necessarily of the same strength. The conventional threshold for statistical significance is a 5% probability that the result occurred by chance (expressed as $p < .05$). This threshold corresponds to a 95% confidence level, commonly accepted as $\alpha = .05$. More stringent thresholds ($p < .01$ or $p < .001$) are used for higher confidence levels.

Once a correlation is confirmed as statistically significant, its magnitude can be assessed on a scale from 0 to ±1. The following criteria are often used (Vinuesa, 2016):

- **Negligible correlation**: $r < |0.1|$
- **Low correlation**: $|0.1| < r \leq |0.3|$
- **Medium correlation**: $|0.3| < r \leq |0.5|$
- **Strong or high correlation**: $r > |0.5|$

These guidelines assist in evaluating both the presence and strength of associations in educational and macroeconomic analyses.

Method

The methodology comprised documentary research, followed by econometric and statistical correlational analysis using both bivariate and multivariate models. This approach aimed to identify social and macroeconomic indicators with significant direct or indirect relationships to the IME, establishing its correlation with various economic and social impact factors in the country.

The indicators selected for the bivariate analysis included the GINI coefficient, the Human Development Index (HDI), GDP per capita, Gross Capital Formation, and the Trade Balance. The multivariate analysis incorporated 10 additional indicators, which will be detailed in the next chapter. Additionally, results were validated by applying the model to the EI.

The IME data was provided by INICIA in an Excel file, and SPSS Statistics software v.25 was used for the analysis.

Findings

This chapter focuses on analyzing data from the previously identified indicators. In line with maintaining statistical rigor, the initial step involved assessing whether the variables were normally distributed to enable the appropriate use of correlation tools. This approach ultimately allowed for deducing the relationship between the IME and other factors or indicators. As a point of comparison, data from the Education Index was also utilized, ensuring that the triangulation process supported accurate inference.

Normality Tests

Before starting the process of identifying and quantifying the correlation between two variables, the assumption of normality, i.e., that they are normally distributed, must be met. Table 3 lists the normality tests for the GDP per capita, GINI coefficient, Education Index (EI), Human Development Index (HDI) and the Educational Improvement Index (IME).

Table 3. Normality tests for the GDP per capita, GINI, EI, HDI and IME, measured in the Dominican Republic from 1990 to 2018.

Prueba	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Índice	Estadístico	gl	Sig.	Estadístico	gl	Sig.
Índice de Desarrollo Humano	0,156	11	,200*	0,916	11	0,283
Índice de Educación	0,203	11	,200*	0,840	11	0,032
INB percápita PPA	0,178	11	,200*	0,928	11	0,390
Coeficiente de Gini	0,175	11	,200*	0,954	11	0,701
Índice de Mejora Educativa	0,171	11	,200*	0,926	11	0,369
*. Esto es un límite inferior de la significación verdadera.						
a. Corrección de significación de Lilliefors						

Source: own elaboration

The column on the right shows that if the significance level is greater than 0.05, the distribution can be considered normal, which allows for correlational analysis of the HDI, GDP per capita, GINI and IME indexes.

To validate our assumptions we applied the same process to the indices for Colombia revealing that the HDI, EI, and GINI also exhibited a normal distribution.

IME vs. GDP per capita

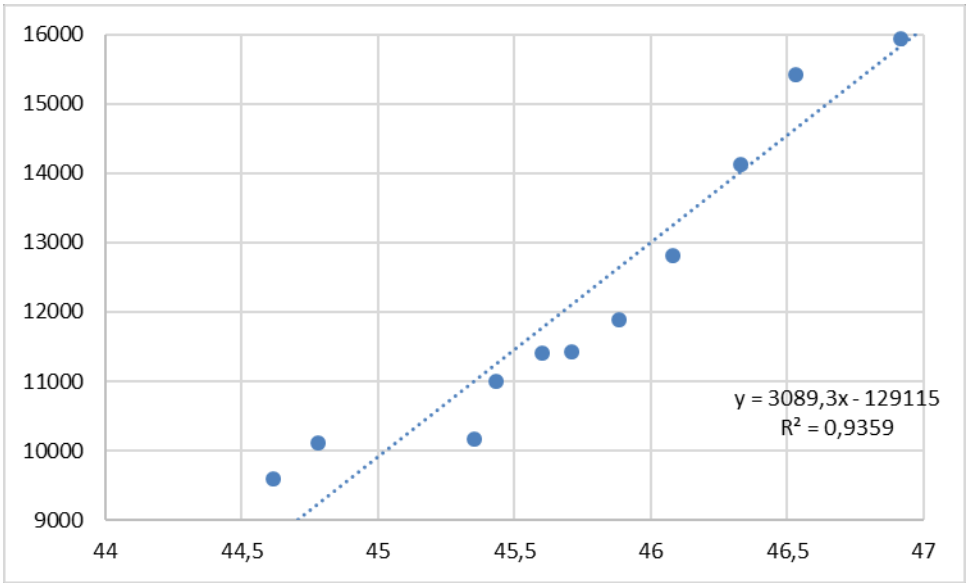
In a preliminary analysis, Pearson's linear correlation coefficient was applied to examine the relationship between the IME and GDP per capita, measured in purchasing power parity (PPP) international dollars (previously referenced as GDP per capita), as illustrated in Figure 2. The Analysis of Variance (ANOVA) test produced an F-value of 146.1 with a significance level of 0, confirming the correlation's statistical significance (see Table 4). The model indicates that each point increase in the IME could correspond to a nearly US$2,000 rise in GDP per capita, supporting the case for investment in education.

Table 4. ANOVA test for the relationship between GDP per capita and the IME of the Dominican Republic, from 2007 to 2018

	Sum of squares	gl	Mean square	F	Sig.
Regression	66332263	1	66332263	146,087	,000a
Residual	4540604	10	454060		
Total	70872867	11			

a. Predictors: (Constant), IME

Figure 2. Correlation between GDP capita and the IME of the Dominican Republic from 2007 to 2018



Source: Own elaboration with data from INICIA and the World Bank (y-axis: GDP, x-axis: IME)

In addition, as recommended in the theoretical framework, in order to eliminate the problem of dependence on the scale or units of measurement, the standardized correlation coefficient should be examined, as shown in Table 5, which shows that this indicator is

high, confirming a positive relationship between GDP per capita and the IME.

Correlation coefficients and statistics for the relationship between GDP per capita and IME of the Dominican Republic from 2007 to 2018.

	Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% confidence interval for B	
	B	Dev. Error	Beta			Lower límit	Upper limit
(Constant)	-129114,675	11726,791		-11,010	0,000	-155243,6	-102986
IME	3089,337	255,599	0,967	12,087	0,000	2519,827	3658,848

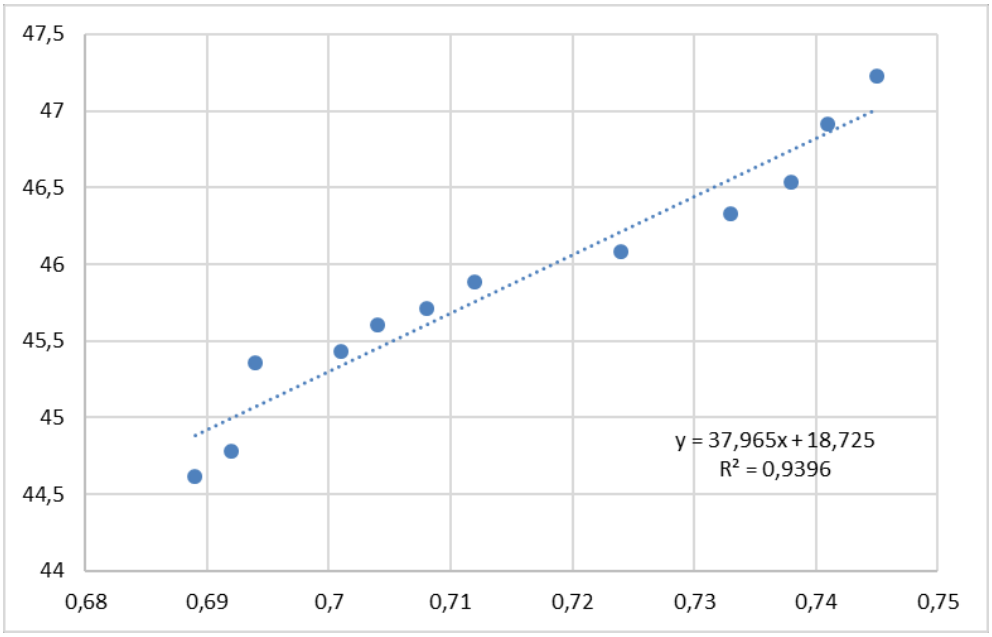
a. Dependent variable: GDP per capita PPP

The debate persists on whether GDP alone is a sufficient indicator of citizens' well-being. Many economists argue that, while GDP does not capture the quality of healthcare, education, or the beauty of poetry, countries with higher GDP can invest more in schools, hospitals, and cultural enrichment, provided that funds are allocated effectively (Martínez, 2019). However, GDP has notable limitations—chief among them is its inability to account for income distribution. For example, two countries with the same GDP per capita may differ significantly in welfare if one has more equitable income distribution, a factor GDP does not reflect (Velásquez, 2011). Consequently, the following sections present correlations between the IME and other social factors.

IME versus Human Development Index (HDI)

As outlined in the theoretical framework, the HDI integrates the GDP with the country´s life expectancy and the Education Index, enabling a broader consideration of factors with a more substantial social impact than GDP alone. Figure 3 demonstrates a strong correlation between the IME and the HDI, supported by a Spearman coefficient exceeding 0.9.

Figure 3. Linear correlation between HDI and IME of the Dominican Republic from 2007 to 2018.



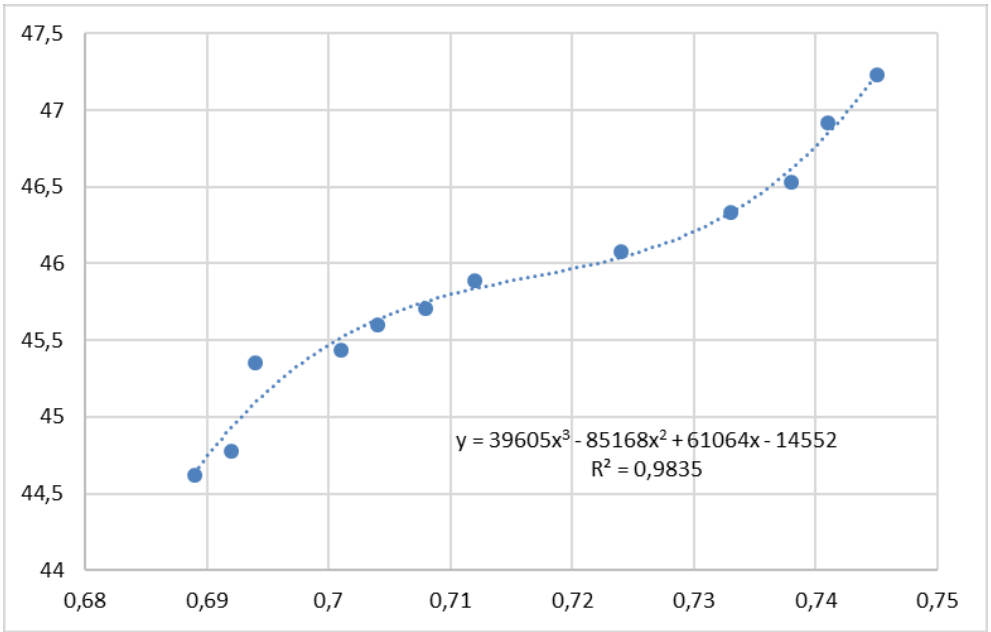
Source: Own elaboration with data from INICIA and the UNDP (y-axis: IME, x-axis: HDI)

The ANOVA test yielded significance close to zero, indicating that the correlation is statistically significant.

At first glance, one might attribute the high correlation to the fact that educational factors comprise one-third of the HDI indicator. However, these factors differ from those included in the IME, as outlined in the theoretical framework.

The correlation noted above is linear, with a y-intercept of 18,725 and a slope coefficient of 37,965 for variable x. Nonetheless, the literature encourages exploring models beyond linearity to identify various relationships between variables. Accordingly, when testing an alternative model, such as a third-degree polynomial (see Figure 4), we observe a coefficient nearing 1. This result reinforces a strong relationship between the two factors, suggesting that human development growth in the Dominican Republic is indeed driven by the components of the IME—namely, the quantity and quality of education in the country.

Figure 4. Polynomial correlation of HDI and IME of the Dominican Republic from 2007 to 2018



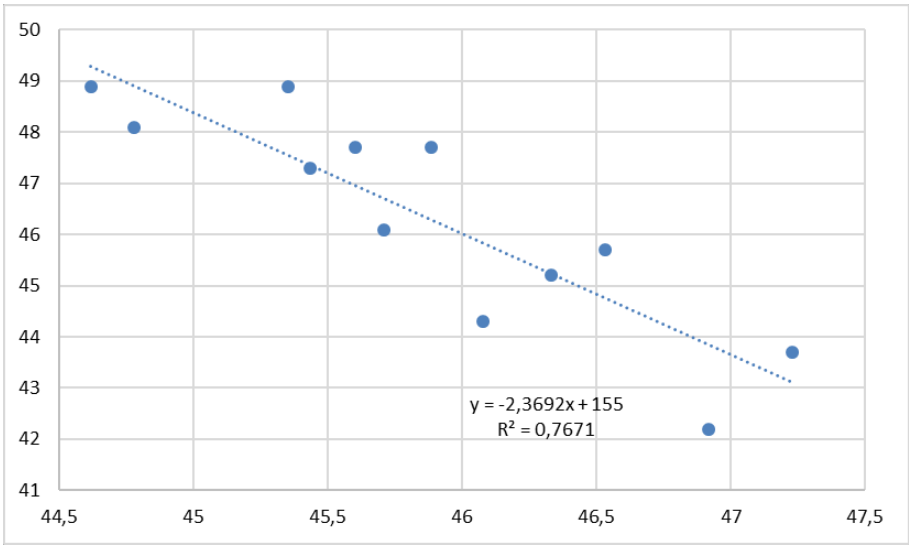
Source: Own elaboration with data from INICIA and the UNDP (y-axis: IME, x-axis: HDI)

Similar to the linear correlation, this polynomial relationship is also significant, reinforcing the notion that the IME factors contribute to the country's human development.

IME versus the GINI coefficient

To further reinforce the contribution of education, as measured by the IME, in Dominican society, a correlation with the GINI coefficient reveals a negative or inversely proportional relationship. This indicate that as the IME increases, the inequality coefficient decreases, suggesting that the educational factors comprising the IME contribute to greater equality (Figure 5).

Figure 5. Correlation between the GINI coefficient and the IME of the Dominican Republic from 2007 to 2018.



Source: Own elaboration with data from INICIA and the World Bank data (y-axis: GINI, x-axis: IME)

Therefore, it can be inferred that for each point increase in the IME, the GINI coefficient may decrease by nearly two points, thereby contributing to greater equality within the population.

Multivariate analysis

Previous analyses included two variables, one being the IME, which demonstrated a direct correlation with economic and social factors. This section introduces a multivariate analysis aimed at assessing the impact of the IME, along with other independent variables, on GDP per capita. GDP per capita was chosen as the dependent variable due to its strong association with economic growth. The selected independent variables were as follows:

- Unemployment, total (% of total labor force participation) (national estimate)
- Mining revenues (% of GDP)
- Industry, value added (% of GDP)
- Agriculture, value added (% of GDP)
- Trade (% of GDP)
- Balance of trade in goods and services (% of GDP)
- Gross capital formation (% of GDP)
- Exports of goods and services (% of GDP)
- Tax revenues (% of GDP)

- Workers' remittances and employee compensation, received (% of GDP)
- Foreign direct investment, net capital inflows (% of GDP)
- Trade in services (% of GDP)

Table 4 indicates that the IME, Gross Capital Formation, and the Trade Balance of Goods and Services were significant contributors to GDP per capita. Although the Beta values suggest that the IME might appear to have the largest impact, this interpretation is limited by the differing units of measurement between the IME and the other contributing variables. This analysis was conducted using the stepwise method of multiple linear regression, which sequentially excludes independent variables that do not significantly contribute to the relationship with the dependent variable.

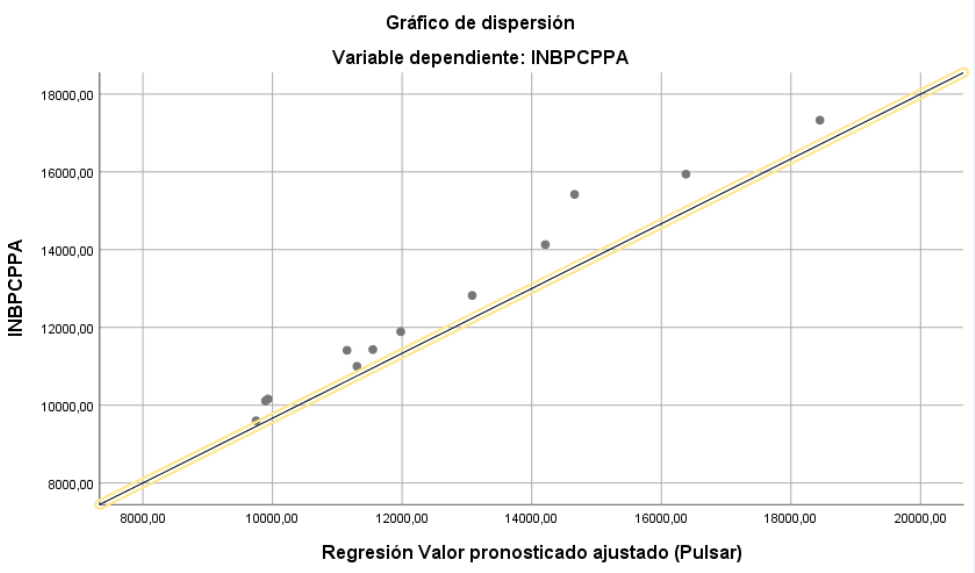
Table 4. Correlation statistics between GDP per capita, IME, Gross Capital Formation and Trade Balance of Goods and Services in the Dominican Republic (from 2009 to 2018).

	Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% confidence interval for B	
	B	Dev. Error	Beta			Lower Limit	Upper Limit
(Constant)	-161941	13951,92		-11,61	0,00	-194932	-128950
IME	3587	278,52	1,17	12,88	0,00	2928	4246
Gross capital formation (% of GDP)	460	70,34	0,53	6,54	0,00	294	627
Trade balance of goods and goods and services (% of GDP)	182	51,17	0,28	3,56	0,01	61	303

Source: own elaboration with data from INICIA Educación and the World Bank.

The model forecast is shown in Figure 6, indicating linearity and a strong correlation between actual and predicted data.

Figure 6. Regression of the real value of GDP per capita and that predicted by the multivariate model.



Source: own elaboration with data from INICIA Educación and the World Bank.

To validate the previous findings, a second correlation model was developed, focusing on the absolute values (in current US dollars) of specific macroeconomic variables:

- Balance of trade in goods and services
- Gross capital formation
- Exports of goods and services
- Foreign direct investment, net capital inflows (balance of payments)
- Imports of goods, services, and primary income (balance of payments)

When these independent variables, along with the IME, are analyzed in relation to GDP per capita, a significant direct correlation is observed between the IME, Gross Capital Formation, and the trade balance relative to GDP per capita (see Table 5). This result corroborates the findings from the previous analysis, which used the variables' relative values (as percentages of GDP, shown in Table 4).

Table 5. Correlation statistics between GDP per capita, IME, Gross Capital Formation, and the Trade Balance of Goods and Services for the Dominican Republic in units of US$ at current prices (from 2009 to 2018).

	Unstandardized coefficients		Standardized coefficients	t	Sig.	95.0% confidence interval for B	
	B	Dev. Error	Beta			Lower Limit	Upper Limit
(Constant)	-54653,076	12519,807		-4,365	0,002	-83523,802	-25782,350
IME	1339,605	288,728	0,420	4,640	0,002	673,796	2005,413
Gross capital formation (US$ at current prices)	4,669E-07	0,000	0,515	6,538	0,000	0,000	0,000
Balance of trade in goods and services (US$ at current prices)	3,276E-07	0,000	0,176	3,754	0,006	0,000	0,000

Source: own elaboration with data from INICIA Educación and the World Bank.

It is important to note that when GDP component variables—such as the contributions of various sectors of the economy—are included, the influence of the IME in the model diminishes significantly. This occurs because sectoral value added directly drives economic growth within the same analytical framework, suggesting that a predictive model for economic growth can be effectively built around these sectors. Consequently, other independent variables measured in different units do not contribute meaningfully to this model.

Supporting this, two recent meta-analyses across 81 studies found that effective managerial leadership positively impacts school performance (Uysal & Sarier, 2019; Liebowitz & Porter, 2019). Effective leadership is a key outcome of investments in human capital formation. The literature further emphasizes this, identifying strong principal and teacher

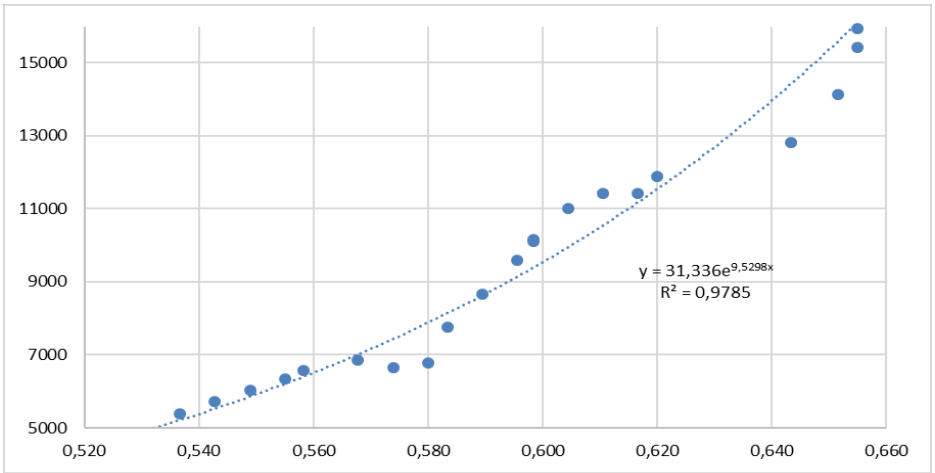
profiles, with motivated teachers inspired by their leaders, as hallmarks of successful schools.

To further validate these findings, a correlational model was applied between the Education Index (EI), GDP per capita, and the GINI coefficient.

EI versus GDP per capita

The strong correlation (close to 1) indicates that as both the expected and average years of schooling increase, the country's economy grows correspondingly (see Figure 6). This significant correlation aligns with an exponential model, suggesting that investments in education could potentially result in a substantial multiplier effect on economic growth.

Figure 6. Correlation between GDP per capita and the Education Index of the Dominican Republic (1990 – 2018)

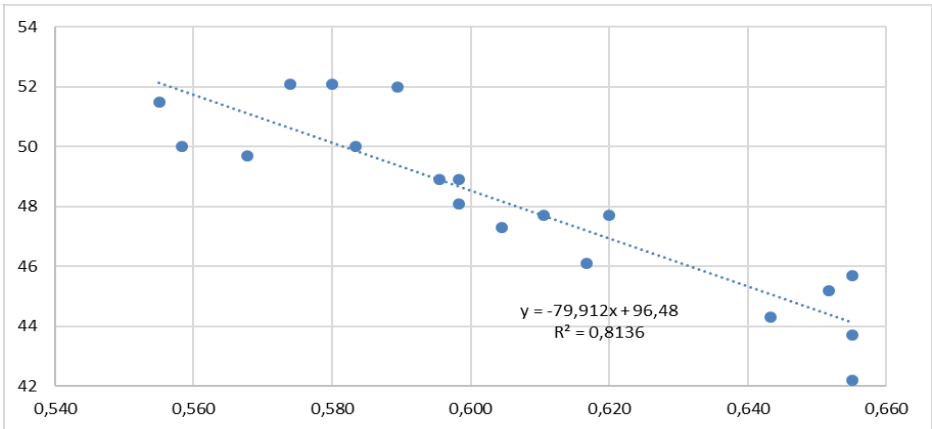


Source: Own elaboration with data from the World Bank and UNDP (y-axis: GDP, x-axis: Education Index)

EI versus the GINI coefficient

Similarly to that observed with the IME, the increase in the EI allows for a reduction in the GINI, which favors equality (Figure 7).

Figure 7. Correlation between the GINI coefficient and the EI of the Dominican Republic, from 1990 to 2018.



Source: Own elaboration with data from World Bank and UNDP (y-axis: GINI, x-axis: EI).

In order to compare the results obtained from the multiple correlation of the IME with macroeconomic variables, the IME was replaced by the EI in the analysis of these same variables, leading to the EI being one of the variables excluded (stepwise method).

Findings

The correlations between the Education Improvement Index (IME) and selected socioeconomic factors reveal that as the IME has increased, so has the economy, measured by GDP per capita, along with improvements in human development as reflected by the Human Development Index (HDI). Furthermore, the decrease in the GINI coefficient indicates a positive shift in income equality across the population. These relationships were statistically significant, supporting informed decision-making at an inferential level.

The findings of this study align with numerous meta-analyses and investigations conducted globally over recent decades, which have consistently demonstrated a significant correlation between various educational indicators and economic growth, thus reinforcing the validity of this study's conclusions.

This study suggests that advancing improvements in the education system—a central mission of INICIA Educación, as measured by the IME—supports the achievement of Sustainable Development Goal 4. This progress relies on sustained investment in key influencers of school performance.

Although the models used to correlate these indices underwent significance testing to validate statistical inferences, it is important to recognize that enhancing any indicator within an economy like the Dominican Republic—valued at approximately $79 billion in 2019 (Central Bank, 2020)—would likely require substantial investment, potentially in the hundreds of millions of dollars annually, with results materializing over the long term. Historical examples such as Finland, South Korea, and Singapore, whose educational systems are now among the world’s best, illustrate this gradual progress. These countries spent decades reaching their current educational levels, with public spending on education consistently between 5% and 7% of GDP.

A similar trajectory could be feasible for related countries, where public investment in technological training, policies to enhance educational quality, support for technological entrepreneurship and innovation, and anti-corruption measures may drive substantial social mobility (World Economic Forum, 2020a). Such measures could also help these countries rank among the top 10 most innovative (Global Innovation Index, 2019) and top 5 most competitive globally (World Economic Forum, 2020).

Recommendations

Continued investment in human capital development will foster sustained economic growth and improvement in social development and competitiveness indicators, provided there is a concerted effort to strengthen the entrepreneurial ecosystem. This should prioritize investment in technology, research and development, and technological training to prepare the workforce for active participation in the Fourth Industrial Revolution.

Future projects could focus on creating an index that incorporates educational dimensions and quantifiable metrics, enabling a precise assessment of the impact of INICIA Educación investments on economic and social outcomes. By refining the IME, INICIA Educación can strategically direct its contributions towards the components with the highest potential for impact.

Evaluating the impact of INICIA Educación investments on target beneficiary groups would provide valuable insights to justify the foundation's social contributions. Research confirms that effective school leadership is a key characteristic of successful schools in the Dominican Republic; thus, studying exemplary management models would help identify competencies that can be replicated by principals whose schools are striving to elevate educational quality. Initiatives could be developed to enhance these managerial competencies, ensuring that INICIA Educación beneficiary groups receive the maximum benefit from these investments.

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