

Ecuadorian Companies' Assets, Income, and Corporate Social Responsibility

Arnaldo Vergara-Romero¹, Petr Sed'a², Rafael Sorhegui-Ortega³ and Lisette Garnica-Jarrin⁴

¹Universidad de Córdoba, Avd. Medina Ahara, 5, 14071 Córdoba, España

²VSB-Technical University of Ostrava, Sokolská třída 33, 702 00 Ostrava, Czech Republic

³Universidad Bolivariana del Ecuador, Km 5.5 vía Durán-Yaguachi, Ecuador

⁴Axios Research EC, Km 12 Av. León Febres Cordero, Daule, Ecuador

Abstract

Financial statement income and Corporate Social Responsibility are debated worldwide. The purpose of this study is to determine the extent to which corporate social responsibility (CSR) initiatives have an impact on economic returns and asset accumulation. This will be accomplished by conducting an exhaustive analysis of the CSR reports of Ecuadorian companies in conjunction with their financial statements obtained from control agencies such as the Superintendence of Companies of Ecuador and the Internal Revenue Service. Logistic regression with regulatory data is used to verify monetary income and Corporate Social Responsibility application.

Keywords

Societal Responsibility, Profitable Performing, Sustainable Progress

1. Introduction

Companies are coming up against increasing pressure in the modern business landscape, which is increasingly globalized and interconnected. This pressure requires them to deliver profitable financial results and fulfill social and environmental responsibilities [1, 2]. As Corporate Social Responsibility (CSR) is gaining popularity, businesses worldwide are trying to incorporate environmentally friendly policies and procedures into their primary business activities. This pattern is also present in Ecuador, which is not an exception, given its dynamic emerging economy, abundant cultural heritage, and diverse natural resources [3, 4].

This study investigates the connection between the assets, income, and Corporate Social Responsibility of businesses active in Ecuador. Our goal is to provide valuable insights into how socially responsible practices can contribute to economic growth and sustainable development in the country by analyzing the impact that CSR has on the financial performance of these


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✉ z82veroa@uco.es (A. Vergara-Romero); petr.seda@vsb.cz (P. Sed'a); hrasorhegui@ube.edu.ec (R. Sorhegui-Ortega); lisg13@gmail.com (L. Garnica-Jarrin)

🆔 0000-0001-8503-3685 (A. Vergara-Romero); 0000-0002-2205-6377 (P. Sed'a); 0000-0001-7882-5246 (R. Sorhegui-Ortega); 0000-0002-2440-3766 (L. Garnica-Jarrin)



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organizations. To do this, we will be examining the impact that CSR has on the financial performance of these organizations [5, 6].

The term "Corporate Social Responsibility" refers to a wide variety of actions and projects carried out by businesses to strike a healthy balance between their economic goals and the needs of society and the environment. It entails accepting responsibility for the company's impact on various stakeholders, such as employees, customers, communities, and the natural environment. CSR initiatives can encompass a wide variety of actions, including the promotion of ethical business practices, the assurance of the well-being of employees, the reduction of environmental footprints, the support of local communities, and the participation in charitable endeavors [7, 8].

The connection between corporate social responsibility and financial performance is more interesting because Ecuador's business landscape encompasses many sectors, including oil and gas, agriculture, manufacturing, tourism, and service [9, 10, 11, 12]. The expansion of the nation's economy, driven by increased domestic consumption and international trade, makes for an exciting backdrop for analyzing how businesses incorporate corporate social responsibility practices into their operations and the subsequent effects on their assets and income [13, 14].

The purpose of this study is to determine the extent to which corporate social responsibility (CSR) initiatives have an impact on economic returns and asset accumulation. This will be accomplished by conducting an exhaustive analysis of the CSR reports of Ecuadorian companies in conjunction with their financial statements obtained from regulator organizations such as the Superintendence of Corporations of Ecuador (SCE) and the Internal Revenue Service (SRI). In addition, we will investigate the CSR activities that companies in Ecuador participate in to determine both existing best practices and potential areas for growth [7, 8].

Companies and stakeholders alike must have a solid understanding of how corporate social responsibility affects financial performance. CSR performance is being looked at increasingly as an essential indicator of a company's ability to remain profitable and sustainable over the long term by shareholders, investors, and financial institutions [15, 16, 17]. In addition, government bodies and regulatory agencies are actively encouraging businesses to adopt CSR practices. This is because these practices have the potential to stimulate economic growth, improve social well-being, and reduce environmental risks [18, 19].

This study will provide guidance and recommendations for businesses looking to effectively incorporate CSR into their strategies by shedding light on the relationship between corporate social responsibility (CSR) and financial performance in Ecuador. In addition, it will offer insights that can inform policy-making, regulatory frameworks, and business practices in Ecuador and beyond, making it a contribution to the larger body of knowledge on CSR's role in emerging economies [20, 21].

By conducting this study, we hope to contribute to the discussion that is currently taking place regarding the significance of CSR and the implications it has for environmentally responsible business practices, economic growth, and social advancement in Ecuadorian corporations [22, 23]. Ultimately, our findings can give decision-makers and other stakeholders the ability to make informed decisions that align financial goals with responsible and ethical business conduct, thereby contributing to developing a more inclusive, resilient, and prosperous future for Ecuador [24, 25].

To achieve the goal, test this hypothesis:

- H_1 : Sustainability reports increase corporate social responsibility-related in-come.
- H_2 : Sustainability reports boost company assets through corporate social responsibility.

1.1. Ecuadorian CSR

According to [26, 27], the 2030 agenda debate opened the door to accelerating Corporate Social Responsibility since the Government Plan "Creation of Opportunities 2021-2025" requires a very close and forced relationship. This plan follows Ecuador’s Political Constitution’s five axes: 16 intentions, 55 strategies, and 130 purposes (see Figure 1).

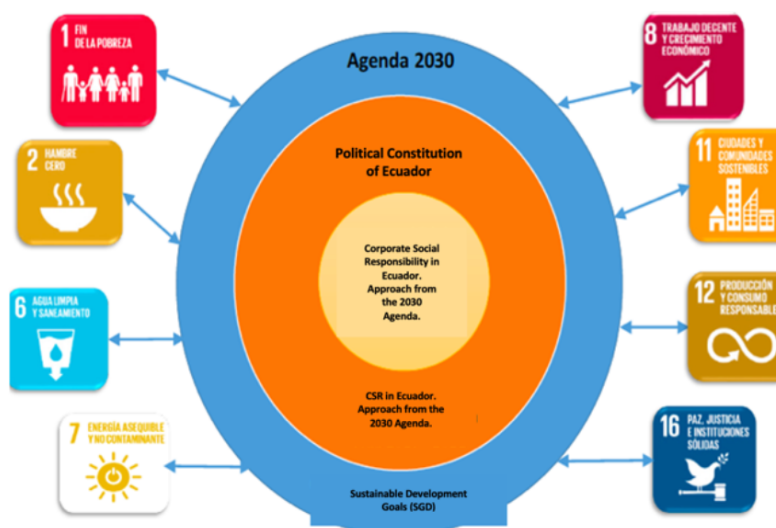


Figure 1: CSR of Ecuador and 2030 Agenda.

Thus, business, society, and government respect environmental factors. Food companies in Ecuador implement food programs, sustainable agriculture, and malnutrition prevention [28, 29]

These practices support Sustainable Development Goal 2, which seeks to end hunger, improve nutrition, and stimulate sustainable agronomy. Article 23 makes food and nutrition a civil right. Finally, Article 42 states that food security ensures state health [26, 30].

This contribution shows private companies’ commitment to state goals until 2025. Objective 3: "Promote productivity and competitiveness in the agricultural, industrial, aquaculture, and fishing sectors, under the circular economy approach", and Objective 6: "Guarantee the right to comprehensive, free, and quality health" [26, 31].

This instance demonstrates how nationwide protocols and international agreements align for civilization, administration, corporate, and the ecosystem. Ecuadorian companies have ethically treated customers, improved employee quality of life, optimized energy use, digital development, improved production, consumer fidelity, and reasonable compensations when developing CSR activities or programs [32, 33].

Few Ecuadorian firms practice social responsibility. Still, the Sustainable Development Goals encourage participation in second-tier international organization financing and government

support [7, 33].

2. Materials and Methods

A documented examination of preceding revisions and the approved pages of the SCE and the SRI was used to collect statistics for the research. The SCE issues corporate taxes. They are the IRS-taxpaying companies.

The empirical analysis used 2020 Statements of Financial Position, Income Statements, and fundamental financial ratios.

The Ecuadorian Consortium for Social Responsibility (CERES) and the official pages of companies with socialized sustainability reports were also evaluated. JASP 0.16 with logistic and multinomial regression was used.

2.1. Investigation methods

Bivariate logistic regression analysis estimates the dependent variable since this model guarantees values 0 for companies without CSR and 1 for those that do and socialize it, using the following function as a base.

$$Y_t = \frac{1}{1 + e^{-(\alpha + \beta_1 X_1 + \dots + \beta_n X_n)}} + u_t \quad (1)$$

Where CSR is explained in Y_t , it should be interpreted as $P(Y_t = 1)$.

The Wald Test statistic determines the model's significance. The model's independent variables are used with the chi-square distribution for joint effectiveness ($n - 1$). Collective linear dependence is accepted if $p < 0.05$ [34, 35].

The statistical theory calculates the marginal effects of the independent variables on the dependent variable by taking the variable values, multiplying them by the estimated coefficient, and keeping it constant by computing the mean [36, 37].

This equation calculates the ODDS ratio:

$$\text{vent}(y = 0) = \ln \frac{\hat{y}}{1 - \hat{y}} = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + u_t \quad (2)$$

$$\frac{\delta \text{vent}(y = 1 | y = 0)}{\delta x_j} = \beta_j = \frac{\delta}{\delta x_j} \ln \frac{\hat{y}}{1 - \hat{y}} \quad (3)$$

In short, for unit growth in the independent variable, it approaches:

Where e^{β_j} equals the proportion between the improvement after aggregate about the previous value [38, 39][35,36].

This research examines how Corporate Social Responsibility affects the returns of Ecuador's top companies.

A binary dependent variable that indicates whether a company has CSR was used. Sustainability reports were used per GRI and ISO 26000.

Since the financial year 2022 has few companies, the income of the corporations that principal the SCE database and the value of their assets in their 2020 financial statements were used as

independent variables reporting. Due to the COVID-19 pandemic, the regulatory body extended account reconciliation.

$$CSR = \frac{1}{1 + e^{-(\alpha + \beta_1 ASSETS + \beta_2 INCOME)}} + u_t \tag{4}$$

The sample is the SCE’s ranking of 1,000 companies, ordered by reported income.

3. Results

926 out of the 1,000 companies included in the ranking do not have any form of CSR, which accounts for 54% of the Ecuadorian economy; however, 74 of the companies report having CSR in their sustainability reports.

The income ranges from 3,74 million to 2,372 million dollars, with 1,097 million being the average. Asset descriptions: Assets range from 18,09 million to 2,321 million dollars, with a mean value of 1,170 million US dollars.

Both the company’s registration and its constitution state that 51% of the companies are situated in coastal provinces, 47% in mountain provinces, and 2% each in the eastern and Galapagos regions, respectively. The remaining 3% of the companies are spread across the other regions.

Eighty-three percent of companies can be classified as "large," twelve percent can be classified as "medium," and five percent can be classified as "micro and small." The level of employment is the determining factor for this final classification.

In Table 1, the statistical data standards for the model are listed. It is demonstrated both the hedonic model and the materials and methods hypothesis.

The best fits were found with alternative models, Akaike, Bayesian, and Deviance indicators. The p-value of the alternative model is a measurement of its chi-square.

Table 1
Standard – CSR.

Model	Deviance	AIC	BIC
M_0	521.38	527.53	531.12
M_1	254.12	261.22	271.02
Model	df	x^2	p
M_0	999		
M_1	997	269.28	< .001

The average value of pseudo-R2 is 0.50. The Nagelkerke adjustment is the most extreme, while the Cox & Snell adjustment is the most conservative (see Table 2). Based on these pointers, it can be deduced that income and assets have a fifty percent impact on CSR decision-making.

The model coefficients for the two variables that were investigated are presented in Table 3, and the standard error estimate is consistent with those results.

The ASSETS variable, which has the highest probability, is represented by the ODDS ratio (1 percent). There is a chance of 0.6% that INCOME will occur.

Table 2
Standard Acceptable Indices.

Model	McFadden R^2	Nagelkerke R^2
M_1	0.509	0.576

Model	Tjur R^2	Cox & Snell R^2
M_1	0.501	0.229

Table 3
Measurements.

	Estimate	SE
Intercept	-4.803	0.284
ASSETS	0.018	0.001
INCOME	0.007	0.001

	ODDS Ratio	z
Intercept	0.008	-14.764
ASSETS	1.017	8.596
INCOME	1.008	3.684

Table 3 displays the model coefficients for the two variables investigated, and the standard error agrees with its estimate of the magnitude of the error.

The ODDS ratio demonstrates that the probability of ASSETS occurring in CSR is the highest (1 percent). There is a 0.6 percent chance that the INCOME variable will be present.

Table 4
System of measurement.

	Value
AUC	0.939
Sensitiv.	0.510
Specific.	0.991
Precisi.	0.732
F-meas.	0.561
Brier	0.038
H-means.	0.762

The performance metrics that have an acceptable goodness of fit are presented in Table 4 . It is essential to consider that sensitivity and specificity are significantly higher than 0.5. The Area Under the Curve (AUC) makes a prediction of 94 percent for businesses that have CSR (1) and businesses that do not have CSR (0). Classifier discrimination improves as the area under the curve (AUC) gets closer to 1.

According to Figure 2, a company with assets worth more than 378 million dollars in the United States is likely to implement Corporate Social Responsibility with a confidence interval

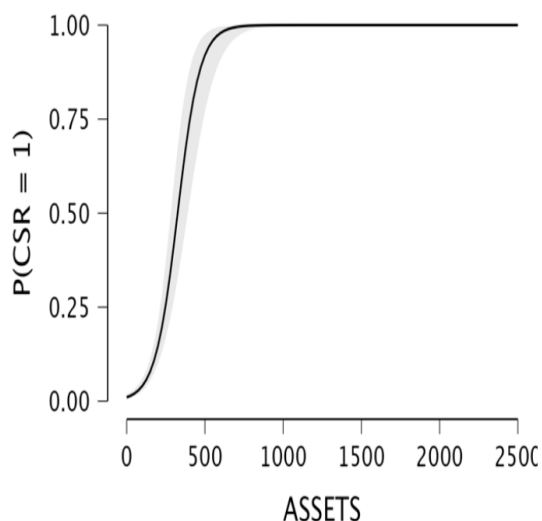


Figure 2: Estimates Plots Assets.

of 95 percent. The figure demonstrates that the margin of error is minimal, differentiating companies that practice CSR from those that do not.

Therefore, companies’ organizational structure compliance slightly improves due to their acquisition of assets.

With a confidence interval of 95 percent, Figure 3 demonstrates that a corporation is more likely to increase its CSR when its revenues exceed 622 million dollars in the United States. As a direct result, the degree to which businesses comply with the structures of their corporate

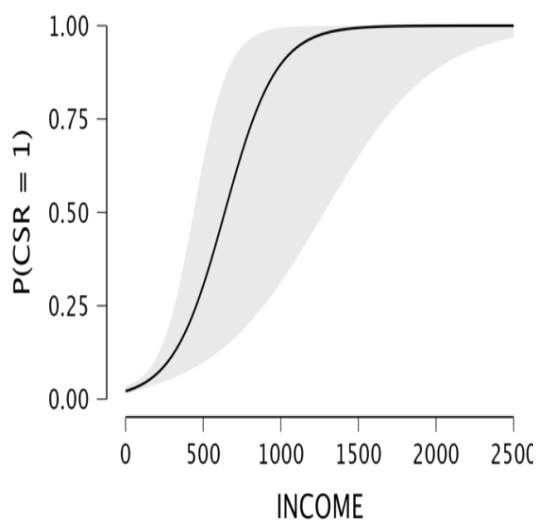


Figure 3: Estimates Plots Income.

organizations becomes increasingly marginal as the companies expand.

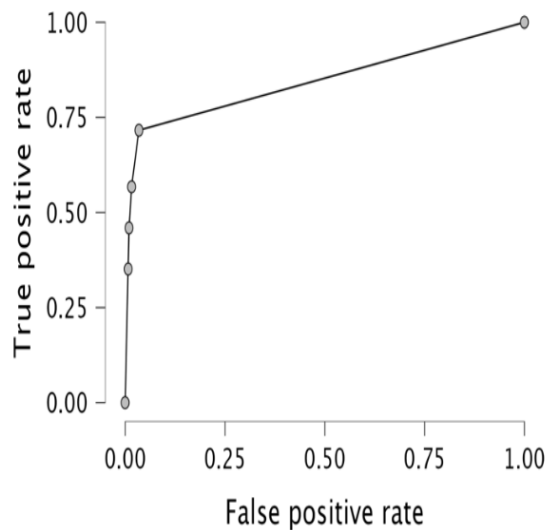


Figure 4: ROC Plot.

Figure 3 demonstrates that the margin of error on the right is significantly larger than the one on the left. Companies that are profitable but do not engage in corporate social responsibility are to blame.

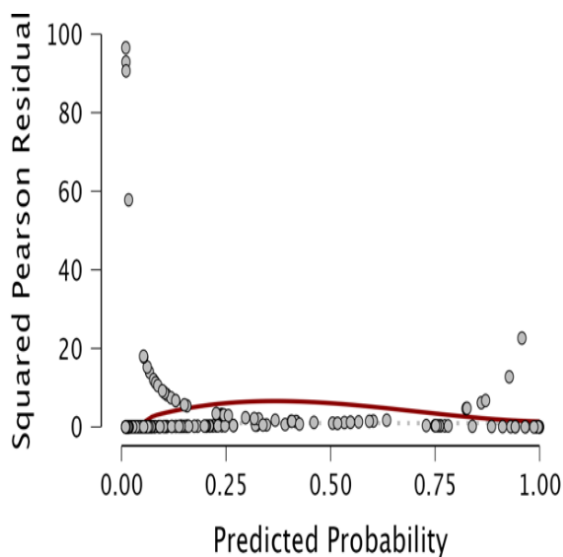


Figure 5: Squared Pearson Residuals Plot.

A correlation between sensitivity and specificity in the ROC curve is shown in Figure 4, which displays the data. The relationship illustrates the AUC points, and the resulting curve

provides accurate predictions for the model.

According to the Squared Pearson residuals, the model's residuals follow a typical distribution, and only four data points are more significant than the mean. This is evidence of a good model fit (see Figure 5).

The marginal effects and ODDS computed in the proposed model with the variables explained demonstrate that the model is superior to one that does not include predictors in its ability to explain intrinsic observations. As a result, the two hypotheses that are compatible with the aim of the investigation are accepted.

4. Conclusions

In this study, empirical support shows the resulting:

Logistic regression supports the hypothesis by fitting the model's multiple specifications and the investigated theory well. Companies in Ecuador that include their CSR projects in their sustainability reports see increased profits.

Companies in Ecuador that publish sustainability reports detailing their corporate social responsibility projects stand to gain additional benefits from CSR.

An adjusted model is displayed to empirically analyze the evidence of capital accumulation and generation or increase in income when applying CSR, capital being more representative than income. Additionally, Corporate Social Responsibility places a higher value on the accumulation of assets than the company's income. As a result, CSR results in an increase in income and assets.

There were some problems with the model's evaluation. The primary concern was the financial burden these business practices imposed on organizations of varying sizes. A company appearance, staff turnover, staffing, arrangements that intensify company-society obligations, and trademark fidelity are all costs that fall under this category.

It is recommended to analyze other aspects for future research, such as relating the cost of applying CSR and the income of the detected corporations. In this way, evaluate the cost-benefit relationship of the implementation and separate the noise from marketing expenses. Likewise, investigate the start time to the present of sustainability projects and analyze their success over time or their transformations to be sustainable, such as the number of projects that were started and are still being maintained or updated at the exact cost. In conclusion, the difference in annual income is utilized for factual and counterfactual evaluation of the impact.

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