



Corporate social responsibility, image, and reputation of the Venezuelan oil industry

Responsabilidad social empresarial, imagen y reputación de la empresa petrolera venezolana

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Abstract

The oil exploitation generates significant positive externalities, but it also implies strong negative impacts. In this context, Corporate Social Responsibility (CSR) is crucial for its contribution to Sustainable Development (SD) and the regulations that govern it. Therefore, the objective was to evaluate CSR as a predictor of the Image (IMA) and Reputation (REP) of the state-owned oil company in Venezuela, through quantitative research with an explanatory scope. Three Likert-7 type instruments, adapted from specialized literature, were administered to a sample of 400 employees of the company, and the results were processed using a PLS-SEM model. The findings showed that CSR positively influences the image, which in turn has a positive impact on corporate reputation. The main contribution of this research is to expand the knowledge on the relationship between CSR, image, and corporate reputation, in the context of a public oil company.

JEL Code: M10, M14, M31

Keywords: corporate social responsibility; economic; environmental; image; reputation

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Resumen

La explotación petrolera genera importantes externalidades positivas, pero también implica fuertes impactos negativos. En este contexto, la responsabilidad social empresarial (RSE) es fundamental por su aporte al desarrollo sostenible (DS) y por las normativas que la rigen. Por ello, se planteó el objetivo de evaluar la RSE como predictor de la imagen (IMA) y la reputación (REP) de la compañía petrolífera del estado venezolano, mediante una investigación cuantitativa de alcance explicativo. Se aplicaron tres instrumentos tipo likert-7, adaptados de la literatura especializada, a una muestra de 400 trabajadores de la empresa, cuyos resultados fueron procesados con un modelo PLS-SEM. Los hallazgos mostraron que la RSE influye positivamente en la imagen que, a su vez, incide positivamente en la reputación empresarial. El principal aporte de esta investigación es ampliar el conocimiento en la relación entre la RSE la imagen y la reputación empresarial, en el contexto de la empresa pública petrolera.

Código JEL: M10, M31

Palabras clave: responsabilidad social empresarial; económico; ambiental; imagen; reputación

Introduction

Oil represents the most important energy source in the world (Welsby et al., 2021), whose exploitation generates positive externalities consisting mainly of employment generation and raw materials production. Nevertheless, it generates strong negative impacts (Adamkaite et al., 2023; Arora et al., 2017; Lint et al., 2020) with globalized consequences, forcing the international community to create mechanisms to address them, although without much success (Karmelich et al., 2023). It is even expected that these negative impacts will increase, accentuating the repercussions for the image and reputation of oil companies, considered some of the most polluting industries on the planet (Choudhury et al., 2022). This, in turn, leads to the questioning of the Corporate Social Responsibility (CSR) they develop (Panait et al., 2022).

Herein lies the importance of studying the following three constructs: CSR as an antecedent of image (IMA) and reputation (REP), which have been little studied together, particularly from a quantitative perspective in the companies of this industrial sector.

On the other hand, the oil industry belongs to the controversial and environmentally sensitive industries (Du & Vieira, 2012), particularly regarding CSR (García-Meca et al., 2021). It is a construct that is considered complex because it does not have a concrete definition, and it is even pointed out that it has been globally dismissed as a mere empty public relations project that ultimately serves only to maximize corporate image (Haalboom, 2012; Strasser, 2017).

The theories used in CSR have been classified as follows (Garriga & Melé, 2004): political, instrumental, integrating, and ethical. The latter approach CSR practices as a reaction to the observance of universal rights, such as respect for the environment and the interest in promoting sustainable

development that gives rise to the sustainable-centric paradigm (Ashrafi et al., 2020), which is an integrator of the environmental, economic, and social dimensions of this type of development endorsed in this research.

Oil revenues have historically had a great impact in Venezuela, and their growing share of foreign currency income increases the economy's vulnerability. These factors justify the study of CSR. It is also justified given its direct influence on the image and indirect influence on the reputation of a public company that monopolizes the exploitation of hydrocarbons, and that became the leading company in this sector in the world ranking of developing nations.

Although the marketing literature points out that CSR practices could improve the image and reputation of organizations with their stakeholders (Aledo-Ruiz et al., 2022), little is known about the perceptions of these groups concerning these factors (Cabrera et al., 2023). CSR has been studied in the framework of Sustainable Development (SD) from institutional and organizational changes of the oil company (Vargas et al., 2022) and has been related to image (Arrive et al., 2019; Khamis & Wan, 2022; Amujo et al., 2012; Sagapova et al., 2022), which in turn has an impact on reputation (Aledo-Ruiz et al., 2022). A relation between CSR and reputation has also been posited (Aqueveque et al., 2018; Sagapova et al., 2022). Nevertheless, the correlation between CSR and image (Echeverría-Ríos et al., 2018) and between CSR and business performance in a broader context (Jing et al., 2023) are subject to controversy.

The approach in this research has a differentiating perspective since it studies a company whose changes are more pronounced than those reported by Vargas et al. (2022). Likewise, it is based on the perception of CSR of an important stakeholder group such as the company's employees, an approach considered in previous works in sectors other than oil (Castaldo et al., 2023; Huang et al., 2024). Given that employees are critical to the success and economic, environmental, and social performance of a company, as well as to the effectiveness of its image and reputation, it is essential to understand their perceptions of CSR.

Recent trends show that companies are inclined to invest in employee well-being (Mokwena et al., 2020) to improve employees' sense of belonging and proactive performance. Clarifying the effectiveness of CSR practices from employees' perceptions can offer companies alternative approaches to improve job performance, which can help reduce motivation costs and improve their well-being while enhancing corporate image and reputation. Therefore, understanding how CSR initiatives relate to employees' motivational states can provide clues for the optimal design of a CSR strategy from a sustainable development perspective and image and reputation enhancement.

Therefore, the most significant contributions of this research are: 1) The verification of the feasibility of CSR closely linked to SD; 2) The explanation of the reputation of the oil company using image and CSR as antecedents; 3) The empirical results of the model—since for the first time, this CSR

model is analyzed with the statistical technique called structural equations (PLS-SEM type)—; 4) The implications of CSR strategies in the public company are discussed, a topic that has been little explored in Latin America.

Theoretical framework and hypothesis

Sustainable development and corporate social responsibility

The definition of SD embodied the idea of sustainable development to meet the needs of current generations without sacrificing the possibilities for future generations (Button, 2020). The SD theory emphasizes that this development has three dimensions: economic (ECO), social (SOC), and environmental (ENV), which served as a theoretical framework to propose a CSR perspective based on ethical theories (Garriga & Melé, 2004), which assigns companies a leading role in the “care of the common home,” in order to mitigate their predatory effect on the environment. This perspective is accepted in the discipline of Strategic Management and the number of applications and theoretical contributions is booming (Ashrafi et al., 2020) to the extent that it is considered the dominant discourse in the corporate culture associated with CSR.

Despite the growing and abundant research on CSR (Cucari et al., 2023), there is still no fully accepted definition (Ashrafi et al., 2020). In the Green Paper “Promoting a European framework for corporate social responsibility, by the Commission of the European Communities” (2001, p. 7), CSR is conceived as “the voluntary integration, by companies, of social and environmental concerns into their business operations and their relations with their stakeholders.” Specifically, to achieve SD, a balance in achieving objectives in three dimensions is indispensable (Panait et al., 2022): Social (reduction of inequalities), Environmental (healthy and balanced environment), and Economic (harmonious development).

In the oil and gas industry, CSR incorporates social, environmental, and economic concerns into the company’s values, decision-making, strategy, and operations transparently and accountably, thus creating better practices and improving society (Hazrati & Heffron, 2021). It is also noted that there is a direct relation between CSR and conflicts associated with this type of industry, as disconnections are often generated between community development projects and human needs. Its ability to differentiate between what people want and their real needs can help resolve crises: it could put an end to rebel youth attacks against oil companies in Niger (Nwankwo, 2015), whose activities have been labeled as corporate social irresponsibility (Amujo et al., 2012), actions that also affect non-oil multinational companies (Lin et al., 2016).

Specifically, the oil industry faces a double challenge. On the one hand, it is recognized as a key sector of the economy, and on the other hand, significant problems related to environmental damage and climate change are attributed to it, which tarnishes its role in promoting sustainable development. Therefore, the oil sector is expected to implement CSR initiatives rigorously (Wang et al., 2022) because governments, public institutions, environmental organizations, and society in general expect oil companies to meet higher CSR standards than companies in other sectors. This highlights that for oil and gas companies, CSR is not simply a matter of will but a necessity and an obligation (Nawrocki & Sz wajca, 2021) to improve their image and reputation (Amujo et al., 2012), among other objectives.

It is important to note that by type of ownership, *Petróleos de Venezuela, S.A. (PDVSA)* is classified among the national oil companies (NOCs), contrary to the private oil companies (POCs). According to Tordo (2011, p. XI), NOCs control approximately 90% of the world's oil reserves and 75% of production, as well as many of the major oil and gas infrastructure systems, whether directly as producers or as “gatekeepers” of exploitation by POCs.

Although Venezuelan public accounting is not very accurate (Balza, 2017), according to the Organization of the Petroleum Exporting Countries (2023), Venezuela's gross domestic product (GDP) in 2021 was USD 46.501 billion. The value of exports was USD 9.990 billion, of which USD 8.816 billion corresponded to the amount of oil exports, with a high participation (88.2%) by PDVSA, the company that has the monopoly of this product. Moreover, in 2019, PDVSA was the third largest Latin American NOC with an annual turnover of USD 29.9 billion (Statista, 2019), and since its foundation, it has been the largest company in Venezuela.

The image of a company

According to Gürlek et al. (2017), corporate image is shaped by the opinions, emotions, impressions, and interactions of a company's various stakeholders regarding that organization. It is also stated that corporate image is a belief and impression of a particular company (Kaur & Soch, 2018; Kim & Kim, 2019). Therefore, having a good corporate image is an essential variable in influencing customer satisfaction and other aspects of customer behaviors (Chien & Chi, 2019).

Changing societal demands have led to the image being closely linked to the concept of CSR. Therefore, organizations must extend the scope of their operations to various social issues to achieve business survival objectives, committing themselves to pay attention to the needs expressed by the various stakeholders. The importance of these groups has been analyzed in cases of image crises of transnational companies when, due to certain actions, they have disappointed the expectations of their customers. Consequently, this has resulted in severe condemnation and negative feelings in public opinion, which

usually entail drastic drops in sales and corporate share prices (Ding et al., 2023). Against this backdrop, it seems that the only way for oil corporations to survive and maintain their legitimacy is to rebuild and change their institutional images from black to green, i.e., to achieve sustainability (Jaworska, 2018).

The reputation of a company

Company reputation is conceived as the integrity, accountability, and trustworthiness perceived by stakeholders in the success of an organization (Famiyeh et al., 2016). It can also be defined as the perceptions of different stakeholders concerning the organization's conduct in the marketplace (Fombrun & Shanley, 2018). According to Siyal et al. (2022), reputation could be described as stakeholders' evaluations of a particular company, which are contingent on social, environmental, and economic considerations about that company over a certain time. Thus, reputation is a joint representation of business activities maintained over an extended period and potential perspectives that reveal how stakeholders interpret business initiatives to assess what they can deliver.

Similarly, reputation is seen as the general intuition generated in stakeholders. Therefore, companies try to build it by focusing on their CSR practices, mainly based on the stimulus-organization-response model. The model indicates that external stimuli influence internal regulatory processes that lead to strategic choices, which subsequently translate into consumer behaviors (Siyal et al., 2022).

Likewise, one of the types of reputation is the social reputation of an organization, which is an important type for public companies since oil spills, among other externalities, have drawn attention to the importance of reputation for oil companies due to their negative consequences for their revenues and other intangible variables.

Hypotheses relating the dimensions of CSR, image, and reputation

CSR practices contribute to forging a positive image and raising business productivity so that the effectiveness of CSR strategies can increase competitiveness and positive social, economic, and environmental impacts. From the sustainable perspective, CSR has been demonstrated (Agirre & Gómez, 2019; Alvarado, 2008; Ashrafi et al., 2020; Şeşen & Gündoğdu, 2023), and CSR has been reported to positively influence company image (Khamis & Wan, 2022; Kim et al., 2020; Le, 2022; Sharkova et al., 2016; Suki & Suki, 2019), as do its dimensions (Alvarado & Schlesinger, 2008).

CSR influences the image, and the latter influences corporate reputation (Aledo-Ruiz et al., 2022) and is positively related to reputation in the oil company (Aqueveque et al., 2018; Sagapova et al., 2022; Sharkova et al., 2016). Amujo et al. (2012), however, hold that, in the case of corporate social

irresponsibility of oil companies, a negative impact on image and reputation is generated. Thus, based on the review of the theoretical and empirical literature, four hypotheses are proposed in the conceptual research model (Figure 1):

H1: CSR initiatives in their environmental dimension directly and positively influence the company's image.

H2: CSR initiatives in their economic dimension directly and positively influence the company's image.

H3: CSR initiatives in their social dimension directly and positively influence the company's image.

H4: The company's image influences reputation.

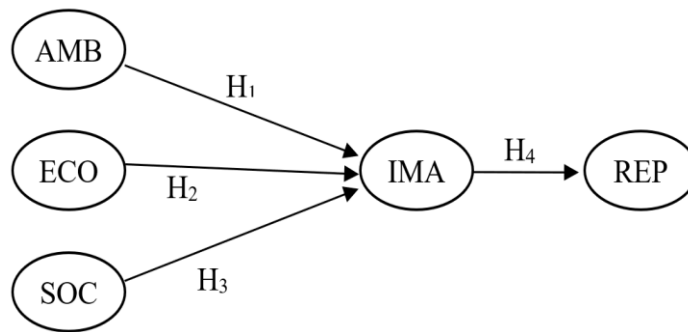


Figure 1. Conceptual research model and hypotheses
Source: created by the authors

Research methodology

PDVSA was selected because it is the national budget's main source of foreign exchange. The population consisted of direct and indirect workers, the latter receiving benefits from the company through labor contracts awarded to contractor companies of PDVSA's Boyacá Division. This population was estimated at 2 200 workers, from which a sample of 400 workers was randomly selected in 2018. Their characteristics of importance are as follows: regarding the gender variable, the majority were men (68.3%), the academic background indicates that university students predominated (57.8%), followed by people with high school diplomas (31.8%), and the rest (56.7%) attained only elementary school level. Regarding the occupation or trade, professionals are in first place (51.5%), then technicians (7.0%), followed by laborers (41.5%). Most respondents were between 26 and 45 years of age (53.5%), followed by those between 46 and 60, while the youngest represented the third group (13.3%); the percentage of

people over 60 was low. Regarding marital status, married (48.3%) and single (48.5%) people had similar percentages, while divorced and cohabiting people appeared in small percentages. Finally, a large majority (88.5%) live in urbanization developments.

As for the company under study—PDVSA Oil and Gas—it is made up of three large Holding Companies or divisions dedicated to the core activities of the business: PDVSA Exploration, Production and Upgrading, PDVSA Refining, Supply and Commerce, and PDVSA Gas. With this organizational restructuring, the operational areas of Barinas and Apure were placed within the organization chart of the Holding corresponding to the Exploration, Production and Upgrading, Production Division under the denomination of South District, at the same level of the other two managements at the national level: General Management East and General Management West. PDVSA Sur, which today is called PDVSA Boyacá Division, is derived from the National Program of PDVSA Exploration and Production. PDVSA Boyacá Division directly manages the Production Operations Units of the oilfields located in the western plains. Its production is transferred to the El Palito Refinery through a 20-inch pipeline, which has a length of 643 km, running through the states of Apure, Barinas, Portuguesa, Yaracuy, and Carabobo.

For the CSR scale (Appendices A1 to A3), items developed by several authors were adapted (Alvarado & Schlesinger, 2008; Alvarado, 2008; Bigné et al. and Dacin, 1997; David et al., 2009; Gallardo-Vázquez et al., 2013; García de los Salmones et al., 2005). For the scales of the company's image (IMA, Appendix A4) and reputation (REP) (Appendix A5), the items designed by Alvarado and Schlesinger (2008) were adapted. The Likert-7 response format was used for all scales, with totally disagree (1) and totally agree (7) as anchors.

The questionnaires were validated by three experts with business administration PhD degrees and applied to a pilot sample of the same population. The statistical power of this sample was estimated with the G* Power program, assigning a maximum permissible error of 0.05 and an estimated effect size of 0.15 for a result of 0.91 (an adequate value as it exceeds the minimum limit of 0.80). Being an explanatory study, the Partial Least Squares technique (PLS-SEM) was used, which is appropriate in the context of the social sciences (Hair et al., 2022) due to its multiple advantages, particularly when the theoretical model and its measurement are not definitively established. This is evident with the concept of SD, a support of CSR that can take on a different meaning depending on the country, or it is considered that its definition is ambiguous (Licandro, 2023). SPSS v. 27 software was used for the descriptive part, and SmartPLS 4 was used to solve the PLS-SEM model.

Statistical analysis and results

Analysis of the measurement model

In this first analysis, the scales were debugged as follows: 1) items Soc2, Soc4, Soc6, Soc7, and Rep1 were eliminated following the recommendations of Hair et al. (2022); 2) due to lack of discriminant validity detected with the Heterotrait-Monotrait Ratio (HTMT) matrix (Hair et al., 2021), item Soc3 and items Rep2 and Rep3 were eliminated because they were highly correlated with image.

This resulted in an appropriate measurement model for the three dimensions of the CSR: ENV, ECO, and SOC, as well as for the constructs IMA and REP. The latter is represented by the indicator with the highest loading ($\lambda=0.822$) of the four that were initially compared, and despite having the disadvantage of being a single item, it is valid. The loadings of the debugged model items (Table 1) behaved in an appropriate range between 0.619 (Eco1) and 0.861 (Soc1), and all are highly significant (Hair et al., 2021).

The most important aspects of the latent variables are described below based on the two items with the highest loadings. In the environmental dimension of CSR, the most salient items are: PDVSA makes investments to make a productive process more compatible with the environment (Amb2) and PDVSA carries out activities to reduce pollution (Amb5). Regarding the economic dimension, PDVSA always tries to improve its economic performance (Eco3), and PDVSA always seeks to obtain the maximum economic profit in the different activities or businesses it carries out (Eco4). Regarding the social dimension, PDVSA contributes to improving the quality of life in the areas where it operates (Soc1), and PDVSA establishes relationships to support the local communities where it operates (Soc5). Regarding image, PDVSA is a progressive company (Ima2), and PDVSA is an innovative company (Ima3). Regarding reputation, PDVSA is a prestigious company (Rep4).

The reliability of the constructs was estimated using Cronbach's alpha (α) and composite reliability index (CRI) statistics. According to Table 1, all α exceeded the value of 0.60, and the CRI exceeded the criterion of ≥ 0.70 (Hair et al., 2021). Both convergent and discriminant validities of the variables or constructs were also confirmed by the average variance extracted (AVE) by obtaining values equal to or above the minimum threshold of 0.5.

Table 1
 Analysis of the construct measurement model

Latent variable	Indicator	Loads	Cronbach's alpha	CRI	AVE
ENV	Env1	0.707***	0.846	0.884	0.521
	Env2	0.791***			
	Env3	0.669***			
	Env4	0.737***			
	Env5	0.744***			
	Env6	0.708***			
	Env7	0.691***			
ECO	Eco1	0.619***	0.780	0.851	0.535
	Eco2	0.743***			
	Eco3	0.786***			
	Eco4	0.755***			
	Eco5	0.742***			
SOC	Soc1	0.861***	0.636	0.846	0.733
	Soc5	0.852***			
IMA	Ima1	0.715***	0.779	0.858	0.603
	Ima2	0.827***			
	Ima3	0.822***			
	Ima4	0.735***			
REP	Rep4	1.000	-	-	-

***p<0.001 Bootstrapping with 5 000 subsamples

Source: created by the authors

The square root of the AVE (figures of the main diagonal are highlighted in bold in Table 2) was higher than the values of the correlations between the different constructs. Such evidence verifies discriminant validity (Hair et al., 2021), which was also verified with the Heterotrait-Monotrait matrix (Table 3), where all values were lower than 0.85 (Hair et al., 2021).

Table 2
 Fornell-Larcker criterion

Construct	IMA	ENV	ECO	SOC	REP
IMA	0.603				
ENV	0.449	0.521			
ECO	0.400	0.398	0.535		
SOC	0.271	0.390	0.211	0.733	
REP	0.472	0.328	0.273	0.154	1.000

Source: created by the authors

Table 3
 Heterotrait-Monotrait Ratio Matrix (HTMT)

Construct	IMA	ENV	ECO	SOC
ENV	0.814			
ECO	0.806	0.770		
SOC	0.732	0.849	0.649	
REP	0.778	0.617	0.594	0.492

Source: created by the authors

Analysis of the structural model

No collinearity problems were found between the exogenous constructs since the variance inflation factors (VIF) are located below the limit of 5 (Hair et al., 2021). The coefficients of determination (R^2) of the endogenous constructs IMA and REP are classified as moderate and weak, respectively (Hair et al., 2021). Based on these coefficients, it is inferred that the best-explained construct is IMA since the dimensions of the CSR explain 53.2% of its variance, and, in turn, the explanatory constructs account for 47.2% of the variance of REP (Table 4).

Contrasting the effect size cutoff points (f^2)—estimated at 0.02, 0.15, and 0.35, which imply small, medium, and large effects, respectively—it is found that the effect sizes of the CSR dimensions on IMA are small, although that of ECO is very close to the medium level and that of SOC is at the lower limit. Conversely, IMA is a good predictor since it has a large effect on REP (Table 4).

Table 4
 Model predictive capability and effect sizes

	Predictive capability			Effect size (f^2)					
	VIF	R^2	R^2_{adjust}	ENV	ECO	IMA	REP	SOC	
ENV	2.196					0.139			
ECO	1.704					0.142			
IMA		0.532	0.529				0.896		
REP		0.472	0.471						
SOC	1.655					0.022			
VIF: Variance Inflation Factor			R^2_{adjust} : R^2 adjusted						

Source: created by the authors

Regarding the model fit indices (Table 5), the value of the standardized root mean squared residual (SRMR) is valid because it is less than 0.08 (Benítez et al., 2020; Henseler et al., 2016). The squared Euclidean distance (Unweighted least squares discrepancy or dULS) and geodesic distance (Geodesic discrepancy or dG) indices are appropriate as they present lower values in the saturated model compared to the estimated model (Idoga et al., 2022), and they are also below 0.95 (Pan et al., 2023).

The Chi-square index (Chi-square) yielded 536.451 in the estimated model, a usually significant value when the sample is relatively large, as in the present case. Nonetheless, it should be noted that it is not clear how this index is applied to PLS-SEM models (Hair et al., 2022, p. 187). As for the normed fit index (NFI), it is slightly below the threshold of 0.90 (Henseler et al., 2016), although a minimum limit of 0.80 has been suggested (Hooper et al., 2008).

In summary, the model presented here is considered valid as the essential indices fall within the ranges recommended by the specialized literature, highlighting that PLS-SEM models have few statistics

since the concept of model fit, as defined in CB-SEM, does not apply to PLS-SEM because of differences in the performance of the methods (Dash & Paul, 2021; Hair et al., 2022, pp. 22, 82; Rožman et al., 2020).

Table 5
 Model fit indices

Statistic	Saturated model	Estimated Model
SRMR	0.056	0.056
d_ ULS	0.591	0.599
d_ G	0.263	0.266
Chi-square	530.865	536.451
NFI	0.843	0.841

Source: created by the authors

In the verification stage of the hypotheses formulated for the structural model (Table 6), the statistical validity of the path coefficients (β) was determined by estimating Student's t values with the bootstrap technique of 5 000 re-samples.

When contrasting hypothesis H₁, the results indicate that CSR initiatives in their environmental dimension directly and positively influence the company's image (H₁: $\beta = 0.376$; $p < 0.001$). This CSR dimension is the most important in this correlation as its standardized beta coefficient is the highest.

Likewise, H₂ was accepted. CSR initiatives in their economic dimension directly and positively influence the company's image (H₂: $\beta = 0.335$; $p < 0.001$). This CSR dimension is the second most important in this correlation.

Similarly, H₃ was accepted. Therefore, CSR initiatives in their social dimension directly and positively influence the company's image (H₃: $\beta = 0.132$; $p < 0.05$). This dimension of CSR is the least important in this correlation.

Finally, H₄ was accepted, confirming that the company's image influences its reputation (H₄: $\beta = 0.687$; $p < 0.001$). This correlation is the strongest, given the high value of the path or beta coefficient.

Table 6
 Contrast of hypotheses

Hypothesis	Path coefficients	Confirmation
H ₁ : Environmental dimension of CSR -> Image	0.376***	Accepted
H ₂ : Economic dimension of CSR -> Image	0.335***	Accepted
H ₃ : Social dimension of CSR -> Image	0.132*	Accepted
H ₄ : Image -> Reputation	0.687***	Accepted

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ ns = not significant Two-tailed test

Source: created by the authors

Discussion of results and conclusions

It was demonstrated that both the three dimensions of the CSR and the IMA and REP constructs are valid because, once the scales were refined, the reliability of their items, the reliability of the latent variables of the global model, and the convergent and discriminant validities of the items were demonstrated. The result of the CSR dimensions agrees with the postulates of an important current of CSR, according to which it is closely linked to SD (Agirre & Gómez, 2019; Alvarado, 2008; Ashrafi et al., 2020; Días et al., 2018) and, therefore, it is applicable in the oil business (Hancock, 2005; Msiska et al., 2021; Vargas et al., 2022).

A detailed analysis shows that support and improvement of the quality of life of the local communities where it operates (Soc1 and 5) are the only indicators perceived as CSR initiatives by the consulted stakeholders. This is not the case concerning responsibilities to workers or culture, education, and sports, whose items were not valid. This coincides with Msosa's (2023) first two assertions that in times of crisis, it is a common practice of extractive industries to place the welfare and rights of workers and communities lower on the list of priorities. On the other hand, the economic and environmental practices are being fully complied with, as all items were valid.

Regarding the IMA construct, the company is perceived as dynamic, progressive, innovative, and with friendly personnel, while its REP is based solely on prestige since the attributes of recognition, respect, and admiration are not considered valid.

The hypotheses stating that the ENV, ECO, and SOC dimensions exert direct and positive influences on image were also accepted, corroborating that initiatives in the field of CSR link the organization with a positive image (Aledo-Ruiz et al., 2022; Arrive et al., 2019; Khamis, & Wan, 2022; Suki & Suki, 2019), especially for its ability to respond to the requirements of society (Kim et al., 2020). Similarly, Motilewa et al. (2018) provided evidence that social activities improve the image of oil companies in developing countries and, in general, CSR is related to image in this type of industry (Amujo et al., 2012; Sagapova et al., 2022; Sharkova et al., 2016). Conversely, Echeverría-Ríos et al. (2018) found that only the social dimension influences brand image in the self-service sector, a controversy that suggests that the CSR-image correlation might depend on the type of industry sector analyzed.

Finally, it was corroborated that image has a positive and significant influence on corporate reputation, with a large predictive effect, confirming a result that coincides with previous reports on this correlation (Aledo-Ruiz et al., 2022; Le, 2022). All these correlations are assumed from the perspective of the stakeholder studied.

The explanation of how PDVSA's CSR influences its image and reputation is particularly anchored in large expenditures in social programs called missions in health, education, and provision of

basic consumer goods, among others (Orhangazi, 2014; Morales, 2022). These reached very high figures, and although public accounting is not very accurate (Balza, 2017), it is estimated that PDVSA spent USD 126.146 billion between 2003 and 2014 (Mora, 2019), with a peak of USD 13.3 billion in 2006. In comparison, in the same year, the four oil giants (Shell, Exxon, BP, and Chevron) barely added up to almost USD 500 million in investments in this type of programs (Frynas, 2009a).

From the stakeholders' perspective, there are growing social demands. This is especially true for the most disadvantaged population who, in times of economic and social crisis, demand, through peaceful or violent protests, the materialization of housing, health, or education rights, among others. This increases social and political tensions, in which the public company assumes new roles to partially meet these new demands (Inoue, 2020; Soyeon et al., 2019).

Conclusions

The general conclusion is that public oil companies that generate significant revenues can simultaneously achieve the three objectives of wealth generation, social development, and environmental protection by implementing CSR initiatives or activities. CSR activities also help to build intangible resources such as good image and reputation, which have a highly competitive value and are useful for the public monopoly company to improve its credibility, prestige, and political influence in society.

Implications of the study

Regarding the implications of the results of this work, the following are noted:

Theoretical implications: it was verified that CSR can be implemented in NOCs from the perspective of SD as a response to internal and external pressures, especially those coming from its stakeholders. Nevertheless, this occurs with important differences between public and private companies as the latter also obey the guidelines of their parent companies abroad, in addition to the pressures of the national and local context where they are located (Vargas et al., 2022). By establishing that the outward-bound activities of the social dimension of CSR were financed with large expenditures, the adoption of a new trend that is beginning to emerge in public companies in several countries can be inferred, such as the accentuation of political influence in decision-making (Inoue, 2020; Soyeon et al., 2019). It is even claimed that for some non-commercial objectives, NOCs are simply convenient funding sources for government-administered programs (Tordo, 2011, p. 24).

On the other hand, CSR initiatives positively influence image and this, in turn, impacts reputation, improving the company's positioning in society. This is particularly relevant in NOCs for their

significant negative externalities rather than for their financial results (FR), as the correlation with CSR is subject to controversy (Ghardallou & Alessa, 2022). Even in the energy sector, it has been reported that there is no link between CSR and FR (Adamkaite et al., 2023), especially in the case of monopolies. As far as had been found in the literature review, these correlations with a quantitative approach had not been elucidated for NOCs or POCs, nor had female workers' perceptions of CSR, image, and reputation been considered.

Other implications arise when comparing PDVSA's CSR as an NOC (CSRNO) with the CSR of POCs (CSRPOC) such as Shell, Exxon, BP, or Chevron. Regarding similarities in CSR policies and initiatives, both implement community development projects. Nevertheless, in the practice of CSRNO, they do not comply with or apply the following: CO₂ emission reductions, government revenue transparency, the United Nations Global Compact, voluntary principles on security and human rights, the Extractive Industries Transparency Initiative, or the guidelines of the World Business Council for Sustainable Development (Frynas, 2009b). Likewise, NOC's CSR also focuses on political gain (to the point of compromising economic gain), which is the national executive's main interest, representing the sole shareholder (the State). For this reason, its social management is not limited to the communities surrounding the areas of operation but covers the entire national territory. In contrast, the CSRPOC focuses on financial interests, which is the focus of the shareholders, both in oil and non-oil companies with private capital.

Practical implications: Based on the results, PDVSA can refine its CSR by improving the indicators of the social dimension related to labor, culture, education, and sports, which the surveyed personnel are not associating with CSR. For their part, the workers can identify the labor aspects that the employer should improve to create an environment conducive to human capital development.

Therefore, PDVSA needs to know that CSR policies from the sustainable development perspective impact its image and, indirectly, its reputation. Moreover, it is necessary to readjust its CSR—particularly in the internal social aspect—to prioritize the long run and financial sustainability and incorporate guidelines applied by the POCs.

Limitations: It is important to note that the respondents were employees of the company, which may introduce a bias in the research results. Notwithstanding, considering only the opinion of this stakeholder group is a recent trend in research in sectors other than oil (Castaldo et al., 2023; Huang et al., 2024), based on the fact that employees are fundamental to the success and economic, environmental, and social performance of a company, as well as to the effectiveness of its image and reputation. Therefore, it is essential to understand their perceptions of CSR. On the other hand, being a cross-sectional study, the results represent an overview of the phenomenon studied at a given time, which some circumstantial

variables may have influenced, the implications of which were not necessarily significant as this type of research design is usual in the study of CSR, image, and reputation (Echeverría-Ríos et al., 2018).

Other limitations and future lines of research are: a) financial aspects were not addressed, which could be included in future research; b) it is important to include other stakeholders for a more holistic view of CSR, image, reputation, and their correlations; and c) it is recommended to use a longitudinal study to analyze the stability over time of the relations between the constructs.

References

- Adamkaite, J., Streimikiene, D., & Rudzioniene, K. (2023). The impact of social responsibility on corporate financial performance in the energy sector: Evidence from Lithuania. *Corporate Social Responsibility and Environmental Management*, 30 (1), 91-104. <https://doi.org/10.1002/csr.2340>
- Agirre, I., & Gómez, I. (2019). The effects of corporate social responsibility on customer loyalty: The mediating effect of reputation in cooperative banks versus commercial banks in the Basque Country. *Journal of Business Ethics*, 154 (3), 701-719. <https://doi.org/10.1007/s10551-017-3438-1>
- Aledo-Ruiz, M. D., Martínez-Caro, E., & Santos-Jaén, J. M. (2022). The influence of corporate social responsibility on students' emotional appeal in the HEIs: The mediating effect of reputation and corporate image. *Corporate Social Responsibility and Environmental Management*, 29 (3), 578-592. <https://doi.org/10.1002/csr.2221>
- Alvarado, A. (2008). *Responsabilidad social empresarial percibida desde una perspectiva sostenicéntrica, y su influencia en la reputación de la empresa y en el comportamiento del turista*, Tesis doctoral, Departament de Comercialització I, Universitat de València, España. <https://roderic.uv.es/rest/api/core/bitstreams/b42421fa-a06d-453e-a343-e7580b4cb6d0/content>
- Alvarado, A., & Schlesinger, M. (2008). Dimensionalidad de la responsabilidad social empresarial percibida y sus efectos sobre la imagen y la reputación: una aproximación desde el modelo de Carroll. *Estudios Gerenciales*, 24 (108), 37-59. [http://dx.doi.org/10.1016/S0123-5923\(08\)70043-3](http://dx.doi.org/10.1016/S0123-5923(08)70043-3)
- Amujo, O. C., Adeyinka, L. B., Otubanjo, O., & Olufunmilayo, A. V. (2012). Impact of corporate social irresponsibility on the corporate image and reputation of multinational oil corporations in Nigeria. En R. Tench, W. Sun, W. & B. Jones (Eds.), *Corporate Social Irresponsibility: A Challenging Concept (Critical Studies on Corporate Responsibility, Governance and*

- Sustainability. (pp. 263-293). Leeds: Emerald Group Publishing Limited, Bingley.
[https://doi.org/10.1108/S2043-9059\(2012\)0000004020](https://doi.org/10.1108/S2043-9059(2012)0000004020)
- Aqueveque, C., Rodrigo, P., & Duran, I. J. (2018). Be bad but (still) look good: Can controversial industries enhance corporate reputation through CSR initiatives? *Business Ethics, the Environment & Responsibility*, 27 (3), 222–237. <https://doi.org/10.1111/beer.12183>
- Arora, M. P., & Lodhia, S. (2017). The BP Gulf of Mexico oil spill: Exploring the link between social and environmental disclosures and reputation risk management. *Journal of Cleaner Production*, 140, 1287–1297. <http://dx.doi.org/10.1016/j.jclepro.2016.10.027>
- Arrive, T., Yafen, M., & Macharia, S. (2019). The involvement of telecommunication industry in the road to corporate sustainability and corporate social responsibility commitment. *Corporate Social Responsibility and Environmental Management*, 26 (1), 152-158. <https://doi.org/10.1002/csr.1667>
- Ashrafi, M., Magnan, G., Adams, M., & Walke, T. (2020). Understanding the conceptual evolutionary path and theoretical underpinnings of corporate social responsibility and corporate sustainability. *Sustainability*, 12 (3), 1-17. <https://doi.org/10.3390/su12030760>
- Balza, R. (2017). El Fonden, “fondos chinos” y sector externo en Venezuela: 2005 a 2014. En R. Balza & H. García (Coords.), *Fragmentos de Venezuela. 20 escritos sobre economía*. Colección Visión Venezuela (pp. 53-90). Venezuela: Universidad Católica Andrés Bello. <https://acortar.link/koEYok>
- Benítez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information & Management*, 57 (2), 103168. <https://doi.org/10.1016/j.im.2019.05.003>
- Bigné, E., Chumpitaz, R., Andreu, L., & Swaen, V. (2005). Percepción de la responsabilidad social corporativa: un análisis cross-cultural. *Universia Business Review*, 5, 14-27. <https://journals.ucjc.edu/ubr/article/view/516>
- Brown, T. J., & Dacin, P.A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing*, 61 (1), 68-84. <https://doi.org/10.2307/1252190>
- Button, K. (2020). Boulding, brundtland, economics, and efforts to integrate air transportation policies into sustainable development. En Walker, T., Bergantino, A., Sprung-Much N., Loiacono L. (eds). *Sustainable Aviation* (pp. 29-54). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-28661-3_3
- Cabrera, S. L., Sánchez, D. J., Guevara, S. A., Millones, D. Y., García, E. E., & Villar, M. (2023). Impact of corporate social responsibility, business ethics and corporate reputation on the retention of

- users of third-sector institutions. *Sustainability*, 15 (3), 1781.
<https://doi.org/10.3390/su15031781>
- Castaldo, S., Ciacci, A., & Penco, L. (2023). Perceived corporate social responsibility and job satisfaction in grocery retail: a comparison between low- and high-productivity stores. *Journal of Retailing and Consumer Services*, 74, 103444. <https://doi.org/10.1016/j.jretconser.2023.103444>
- Chien, L., & Chi, S. (2019). Corporate image as a mediator between service quality and customer satisfaction: difference across categorized exhibitors. *Heliyon*, 5(3), e01307.
<https://doi.org/10.1016/j.heliyon.2019.e01307>
- Choudhury, P. S., Saha, B., Haq, I., & Kalamdhad, A. S. (2022). Use of petroleum refinery sludge for the production of biogas as an alternative energy source: A review. En C. Hussain & S Hait. (2022). *Advanced Organic Waste Management* (pp. 277-297). Elsevier. <https://doi.org/10.1016/B978-0-323-85792-5.00021-6>
- Comisión de las Comunidades Europeas. (2001). Libro verde. Fomentar un marco europeo para la responsabilidad social de las empresas. Documento COM (2001) 366 final. Disponible en [https://www.europarl.europa.eu/meetdocs/committees/deve/20020122/com\(2001\)366_es.pdf](https://www.europarl.europa.eu/meetdocs/committees/deve/20020122/com(2001)366_es.pdf). Consulted: 04/07/2023).
- Cucari, N., Tutore, I., Montera, R., & Profita, S. (2023). A bibliometric performance analysis of publication productivity in the corporate social responsibility field: Outcomes of SciVal analytics. *Corporate Social Responsibility and Environmental Management*, 30 (1), 1-16.
<https://doi.org/10.1002/csr.2346>
- Dash, G., & Paul, J. (2021). CB-SEM vs PLS-SEM methods for research in social sciences and technology forecasting. *Technological Forecasting and Social Change*, 173, 121092.
<https://doi.org/10.1016/j.techfore.2021.121092>
- David, P., Kline, S., & Dai, Y. (2009). Corporate social responsibility practices, corporate identity, and purchase intention: A dual-process model. *Journal of Public Relations Research*, 17 (3), 291-313. https://doi.org/10.1207/s1532754xjpr1703_4
- Días, R. V., Pinto, E., & Sousa, J. A. (2018). Financial disclosure and social environmental responsibility: An empirical study on the Brazilian market. *Contaduría y Administración*, 63 (2), 918-946.
<http://dx.doi.org/10.22201/fca.24488410e.2018.1473>
- Ding, J., Xu, M., Tse, Y. K., Lin, K., & Zhang, M. (2023). Customer opinions mining through social media: insights from sustainability fraud crisis - Volkswagen emissions scandal. *Enterprise Information Systems*, 17 (8), 2130012. <https://doi.org/10.1080/17517575.2022.2130012>

- Du, S., & Vieira, E.T. (2012). Striving for Legitimacy Through Corporate Social Responsibility: Insights from Oil Companies. *Journal of Business Ethics*, 110, 413–427 <https://doi.org/10.1007/s10551-012-1490-4>
- Echeverría-Ríos, O., Abrego-Almazán, D., & Melchor, J. (2018). La responsabilidad social empresarial en la imagen de marca afectiva y reputación. *Innovar*, 28(69), 133-147. <https://doi.org/10.15446/innovar.v28n69.71703>
- Famiyeh, S., Kwarteng, A., & Dadzie, S.A. (2016). Corporate social responsibility and reputation: Some empirical perspectives. *Journal of Global Responsibility*, 7(2), 258-274. <https://doi.org/10.1108/JGR-04-2016-0009>
- Fombrun, C. J., & Shanley, M. (2018). What is in a name? Reputation building and corporate strategy. *Academy of Management Journal*, 33 (2), 233–258. <https://doi.org/10.5465/256324>
- Frynas, J. (2009a). *Beyond Corporate Social Responsibility, Oil Multinationals and Social Challenges*. UK: Cambridge University Press. <https://acortar.link/ffe5Li>
- Frynas, J. (2009b). Corporate social responsibility in the oil and gas sector. *Journal of World Energy Law & Business*, 2 (3), 178-195. <http://dx.doi.org/10.1093/jwelb/jwp012>
- Gallardo-Vázquez, D., Sánchez-Hernández, M. I., & Corchuelo-Martínez-Azua, M. B. (2013). Validación de un instrumento de medida para la relación entre la orientación a la responsabilidad social corporativa y otras variables estratégicas de la empresa. *Revista de Contabilidad*, 16 (1), 11-23. [https://doi.org/10.1016/S1138-4891\(13\)70002-5](https://doi.org/10.1016/S1138-4891(13)70002-5)
- García de Los Salmones, M., Herrero, A., & Rodríguez Del Bosque, I. (2005). Influence of corporate social responsibility on loyalty and valuation of services. *Journal of Business Ethics*, 61 (4), 369-385. <https://doi.org/10.1007/s10551-005-5841-2>
- García-Meca, E., & Martínez-Ferrero, J. (2021). Is SDG reporting substantial or symbolic? An examination of controversial and environmentally sensitive industries. *Journal of Cleaner Production*, 298, 126781. <https://doi.org/10.1016/j.jclepro.2021.126781>
- Garriga, E., & Melé, D. (2004). Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics*, 53 (1-2), 51-71. <https://doi.org/10.1023/B:BUSI.0000039399.90587.34>
- Ghardallou, W., & Alessa, N. (2022). Corporate social responsibility and firm performance in GCC Countries: A Panel smooth transition regression model. *Sustainability*, 14 (13), 7908. <https://doi.org/10.3390/su14137908>
- Gürlek, M., Düzgün, E., & Uygur, S. M. (2017). How does corporate social responsibility create customer loyalty? The role of corporate image. *Social Responsibility Journal*, 13 (3), 409-427. <https://doi.org/10.1108/SRJ-10-2016-0177>

- Haalboom, B. (2012). The intersection of corporate social responsibility guidelines and indigenous rights: Examining neoliberal governance of a proposed mining project in Suriname. *Geoforum*, 43 (5), 969-979. <https://doi.org/10.1016/j.geoforum.2012.06.003>
- Hair, J., Hult, T., Ringle, C., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Thousand Oaks: Sage. <https://www.pls-sem.net/>
- Hair, J., Hult, T., Ringle, C., Sarstedt, M., Danks, N., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) Using R*. Switzerland: Springer Nature. <https://link.springer.com/book/10.1007/978-3-030-80519-7>
- Hancock, J. (2005). *Investing in corporate social responsibility: a guide to best practice, business planning and the UK's leading companies*. London: Kogan Page, London & Sterling, VA. <https://acortar.link/TGIVAo>
- Hazrati, M., & Heffron, R. J. (2021). Conceptualising restorative justice in the energy transition: changing the perspectives of fossil fuels. *Energy Research & Social Science*, 78, 102115. <https://doi.org/10.1016/j.erss.2021.102115>
- Henseler, J., Hubona, G., & Ray, A. A. (2016). Using PLS Path Modeling in New Technology Research: Updated Guidelines. *Industrial Management & Data Systems*, 116 (1), 2-20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Evaluating model fit: a synthesis of the structural equation modelling literature. En N. Brown (Ed.). *7th European Conference on research methodology for business and management studies* (pp. 195-200). UK: Regent's College, London <https://arrow.tudublin.ie/buschmancon/41/>
- Huang, M., Geng, S., Yang, W., Law, K., & He, Y. (2024). Going beyond the role: How employees' perception of corporate social responsibility fuels proactive customer service performance. *Journal of Retailing and Consumer Services*, 76, 103565. <https://doi.org/10.1016/j.jretconser.2023.103565>
- Idoga, P. E., Oluwajana, D. I., & Adeshola, I. (2022). Educational quality and technological complexity on recognition of enhanced learning platform in developing countries using PLS-SEM in a post COVID era. *Educational Technology Research and Development*, 70 (6), 2255-2273. <https://doi.org/10.1007/s11423-022-10150-8>
- Inoue, C. (2020). Election cycles and organizations: how politics shapes the performance of stateowned enterprises over time. *Administrative Science Quarterly*, 65 (3), 677-709. <https://doi.org/10.1177/0001839219869913>

- Jaworska, S. (2018). Change but no climate change: discourses of climate change in corporate social responsibility Reporting in the Oil Industry. *International Journal of Business Communication*, 55, 194–219. <https://doi.org/10.1177/2329488417753951>
- Jing, J., Wang, J., & Hu, Z. (2023). Has corporate involvement in government-initiated corporate social responsibility activities increased corporate value? Evidence from China's Targeted Poverty Alleviation. *Humanities and Social Sciences Communications*, 10, 355. <https://doi.org/10.1057/s41599-023-01869-7>
- Karmelich, C., Wan, Z., Tian, W., Croooke, E., Qi, X., Carroll, A., Konstas, K., & Wood, C. (2023). Advancing hyper-crosslinked materials with high efficiency and reusability for oil spill response. *Scientific Reports*, 13, 9779. <https://doi.org/10.1038/s41598-023-36577-4>
- Kaur, H., & Soch, H. (2018). Satisfaction, trust and loyalty: investigating the mediating effects of commitment, switching costs and corporate image. *Journal of Asia Business Studies*, 12 (4), 361-380. <https://doi.org/10.1108/JABS-08-2015-0119>
- Khamis, N. I., & Wan, W. K. (2022). The impact of corporate social responsibility on corporate image in the construction industry: a case of SMEs in Egypt. *Journal of Sustainable Finance & Investment*, 12 (1), 128-146. <https://doi.org/10.1080/20430795.2021.1930992>
- Kim, M., Yin, X., & Lee, G. (2020). The effect of CSR on corporate image, customer citizenship behaviors, and customers long-term relationship orientation. *International Journal of Hospitality Management*, 88, 102520. <https://doi.org/10.1016/j.ijhm.2020.102520>
- Kim, Y. M., & Kim, J. H. (2019). The relations between safety matters, corporate image and performance in logistics company. *Journal of Distribution Science*, 17 (11), 35-45. <http://dx.doi.org/10.15722/jds.17.11.201911.35>
- Le, T.T. (2022). Corporate social responsibility and SMEs' performance: mediating role of corporate image, corporate reputation and customer loyalty. *International Journal of Emerging Markets*, ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/IJOEM-07-2021-1164>
- Licandro, O. (2023). Voluntariado corporativo: definición y relación con la responsabilidad social empresarial. *Retos*, 13 (25), 97-110. <https://doi.org/10.17163/ret.n25.2023.07>
- Lin, H., Zeng, S., Wang, L., Zou, H., & Ma, H. (2016). How does environmental irresponsibility impair corporate reputation? A multi-method investigation. *Corporate Social Responsibility and Environmental Management*, 23 (6), 413–423. <https://doi.org/10.1002/csr.1387>
- Lint, B., Chyn, E., & Hastings, J. (2020). Advertising and environmental stewardship: evidence from the BP oil spill. *American Economic Journal: Economic Policy*, 12 (1), 33-61. <https://doi.org/10.1257/pol.20160555>

- Mokwena, J., Mashwama, N.X., Thwala, D., Aigbavboa, C., & Hamma-Adama, M. (2020). The current state of corporate social responsibility practices of firms operating in construction industry. En H. Askarinejad, S. Yazdani, & A. Singh. (Eds.) *Proceedings of International structural engineering and construction* [online], 7(2), article ID CPM-01. [https://doi.org/10.14455/ISEC.2020.7\(2\).CPM-01](https://doi.org/10.14455/ISEC.2020.7(2).CPM-01)
- Mora, J. (2019). Venezuela: el petróleo y el socialismo del siglo XXI. *Cátedra*, 16, 186-204. <https://up-rid.up.ac.pa/2102>
- Morales, J. (2022). State-owned enterprises as a political tool: The case of a Venezuelan oil company. *Problems and Perspectives in Management*, 20 (1), 473-487. [http://dx.doi.org/10.21511/ppm.20\(1\).2022.38](http://dx.doi.org/10.21511/ppm.20(1).2022.38)
- Motilewa, B., Worlu, R., Moses, C., Adeniji, C., Agboola, G., & Oyeyemi, A. (2018). Survey data on employees' perception of the impact of community development initiatives on the corporate image of oil and gas firms in Nigeria. *Data in Brief*, 19, 1874-1879. <https://doi.org/10.1016/j.dib.2018.06.077>
- Msiska, M., Ng, A., & Kimmel, R.K. (2021). Doing well by doing good with the performance of United Nations Global Compact Climate Change Champions. *Humanities and Social Sciences Communications*, 108, 321. <https://doi.org/10.1057/s41599-021-00989-2>
- Msosa, S.K. (2023). Corporate social responsibility during the COVID-19 pandemic in the extractive sector. En S.K., Msosa, S. Mugova & C. Mlambo (Eds.). *Corporate Social Responsibility in Developing Countries Challenges in the Extractive Industry* (pp. 15–27). Cham, Switzerland: Springer International Publishing. https://doi.org/10.1007/978-3-031-27512-8_2
- Murillo, G., García, M., & Azuero, A. (2022). Responsabilidad social empresarial, cambio institucional y organizacional del sector petrolero colombiano. *Revista de Ciencias Sociales*, 28 (1), 175-186. <https://doi.org/10.31876/rcs.v28i1.37683>
- Nawrocki, T.L., & Szwajca, D. (2021). A multidimensional comparative analysis of involvement in CSR activities of energy companies in the context of sustainable development challenges: Evidence from Poland. *Energies*, 14, 4592. <https://doi.org/10.3390/en14154592>
- Nwankwo, B. O. (2015). The politics of conflict over oil in the Niger Delta Region of Nigeria: A review of the corporate social responsibility strategies of the oil companies. *American Journal of Educational Research*, 3 (4), 383-392. <https://doi.org/10.12691/education-3-4-1>
- Organization of the Petroleum Exporting Countries. (2023). Venezuela facts and figures. Disponible en https://www.opec.org/opec_web/en/about_us/171.htm, Consulted: 04/07/2023.
- Orhangazi, Ö. (2014). Contours of alternative policy making in Venezuela. *Review of Radical Political Economics*, 46 (2), 221–240. <https://doi.org/10.1177/0486613413497914>

- Pan, R., Qin, Z., Zhang, L., Lou, L., Yu, H., & Yang, J. (2023). Exploring the impact of intelligent learning tools on students' independent learning abilities: a PLS-SEM analysis of grade 6 students in China. *Humanities and Social Sciences Communications*, 10, 558. <https://doi.org/10.1057/s41599-023-02065-3>
- Panait, M., Ionescu, R., Radulescu, I. G., & Rjoub, H. (2022). The corporate social responsibility on capital market: myth or reality? En I. Management Association (Ed.). *Research Anthology on Developing Socially Responsible Businesses* (pp. 1721-1754). IGI Global. <https://doi.org/10.4018/978-1-6684-5590-6.ch085>
- Rožman, M., Tominc, P., & Milfelner, B. A. (2020). Comparative study using two sem techniques on different samples sizes for determining factors of older employee's motivation and satisfaction. *Sustainability*, 12 (6), 2189. <https://doi.org/10.3390/su12062189>
- Sagapova, N., Dušek, R., & Pártlová, P. (2022). Marketing communication and reputation building of leading european oil and gas companies on instagram. *Energies*, 15 (22), 8683. <https://doi.org/10.3390/en15228683>
- Şeşen, H., & Gündoğdu, A. (2023). Corporate social responsibility, corporate reputation and corporate image: Testing a mediational model. *International Journal of Business*, 28 (1), 2-17. [https://doi.org/10.55802/IJB.028\(1\).003](https://doi.org/10.55802/IJB.028(1).003)
- Sharkova, E. A., Gavra, D. P., Shishkin, D. P., Pankova, G. K., & Glinternik, E. M. (2016). Transnational companies and local communities: Aspects informational interaction. *Man in India*, 96 (10), 3805 – 3815. https://serialsjournals.com/abstract/22065_32.pdf
- Siyal, S., Ahmad, R., Riaz, S., Xin, C., & Fangcheng, T. (2022). The impact of corporate culture on corporate social responsibility: role of reputation and corporate sustainability. *Sustainability*, 14, 10105. <https://doi.org/10.3390/su141610105>
- Soyeon, K., Hyun-Han, S., & Seungwon, Y. (2019). Performance of state-owned enterprises during public elections: the case of Korea. *Emerging Markets Finance and Trade*, 55 (1), 78-89. <https://doi.org/10.1080/1540496X.2018.1509789>
- Statista (2019). *Pdvsa, un gigante del petróleo en América Latina*. <https://es.statista.com/grafico/17266/empresas-petroleras-nacionales-con-mayor-facturacion/>
- Strasser, H. (2017). Corporate spheres of responsibility: architects, cowboys, and eco-warriors in myanmar's oil & gas industry. *Forest and Society*, 1 (1), 27-47. <https://doi.org/10.24259/fs.v1i1.1322>
- Suki, N. M., & Suki, N. M. (2019). Correlations between awareness of green marketing, corporate social responsibility, product image, corporate reputation, and consumer purchase intention. En I. Management Association (Ed.). *Corporate Social Responsibility: Concepts, Methodologies*,

- Tools, and Applications (pp. 143-154). Hershey, PA: IGI Global. <https://doi.org/10.4018/978-1-5225-6192-7.ch008>
- Tordo, S., Tracy, B., Brandon S., & Arfaa, N. (2011). National oil companies and value creation. The International Bank for Reconstruction and Development. World Bank Working Paper No. 218. Washington: The World Bank. <https://documents1.worldbank.org/curated/en/650771468331276655/pdf/National-oil-companies-and-value-creation.pdf>
- Wang, X., Zhao, X., Wang, Y., & Li, S. A. (2022). Comparison of CSR image construction between chinese and american petroleum companies in the context of ecological transition. *Sustainability*, 14, 14490. <https://doi.org/10.3390/su142114490>
- Welsby, D., Price, J., Pye, S., & Ekins, P. (2021). Unextractable fossil fuels in a 1.5 °C world. *Nature*, 597, 230–234. <https://doi.org/10.1038/s41586-021-03821-8>

Annex

Table A1
 Scale for measuring the social dimension of CSR

Item	Content	Adapted from:
Soc1	PDVSA contributes to improving people’s quality of life in the areas where it operates.	Bigné et al. (2005)
Soc2	PDVSA offers fair treatment to all workers and employees regardless of gender, race, origin, or religion.	Bigné et al. (2005)
Soc3	PDVSA encourages the training of its personnel.	Gallardo-Vázquez et al. (2013)
Soc4	PDVSA respects human rights.	Bigné et al. (2005)
Soc5	PDVSA establishes relationships to support the local communities where it operates.	Brown and Dacin (1997)
Soc6	PDVSA finances or sponsors social events (sports, cultural, educational, or artistic).	Alvarado and Schlesinger (2008)
Soc7	PDVSA has departments or offices that financially support laudable social causes.	Brown and Dacin (1997)/David et al. (2009)

Source: created by the authors based on Brown and Dacin (1997), Bigné et al. (2005), David et al. (2009), Alvarado and Schlesinger (2008), and Gallardo-Vázquez et al. (2013)

Table A2
 Scale for measuring the environmental dimension of CSR

Item	Content	Adapted from:
Env1	PDVSA avoids wasting resources as much as possible.	Bigné et al. (2005)
Env2	PDVSA makes investments to make the production process more compatible with the environment.	Bigné et al. (2005)
Env3	PDVSA sponsors activities in favor of the environment.	Alvarado (2008)
Env4	PDVSA carries out activities to protect the environment.	Brown and Dacin (1997)/ David et al. (2009)
Env5	PDVSA carries out activities to reduce pollution.	Alvarado (2008)
Env6	PDVSA strives to recycle its waste properly.	Alvarado (2008)
Env7	PDVSA prioritizes environmental training for its personnel.	(Proposed)

Source: created by the authors based on Brown and Dacin (1997), Bigné et al. (2005), David et al. (2009), and Alvarado (2008)

Table A3
 Scale for measuring the economic dimension of CSR

Item	Content	Adapted from:
Eco1	PDVSA seeks to obtain long-term profitability in the oil business.	García de los Salmenes et al. (2005)
Eco2	PDVSA controls its production costs.	Alvarado (2008)
Eco3	PDVSA is always seeking to improve its economic performance.	Alvarado and Schlesinger (2008)
Eco4	PDVSA always seeks the maximum economic benefit from its activities or businesses.	Alvarado and Schlesinger (2008)
Eco5	PDVSA makes every effort to be more productive in its various activities.	(Proposed)

Source: created by the authors based on García de los Salmenes et al. (2005), Alvarado and Schlesinger (2008), and Alvarado (2008)

Table A4
Scale for measuring the company's image

Item	Content
Ima1	PDVSA is a dynamic company.
Ima2	PDVSA is a progressive company.
Ima3	PDVSA is an innovative company.
Ima4	PDVSA staff is friendly.

Source: adapted from Alvarado and Schlesinger (2008)

Table A5
Scale for measuring the company's reputation

Item	Content
Rep1	PDVSA is a well-known company.
Rep2	PDVSA is a respected company.
Rep3	PDVSA is an admired company.
Rep4	PDVSA is a prestigious company.

Source: adapted from Alvarado and Schlesinger (2008)