

Corporate Social Responsibility as a Vehicle for Ensuring the Survival of Construction SMEs. The Mediating Role of Job Satisfaction and Innovation

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Abstract—The purpose of this article is to analyze the effect of corporate social responsibility (CSR) on performance through the mediating role of job satisfaction and innovation in a sample of 503 Spanish SMEs construction. Developing a partial least squares structural equation modeling (PLS-SEM) to test our hypotheses, the results provide evidence that performance is influenced by CSR, job satisfaction, and innovation. These effects are not only direct and positive but, indirect effects which allow the positive effects of CSR to be enhanced are also obtained. This article by empirically examining the relationship between CSR, job satisfaction, innovation, and performance provides an essential contribution to the literature by filling a gap related to the direct effect of CSR on performance, and the indirect effect by the mediation of job satisfaction and innovation. The findings show significant implications for policymakers and managers. The findings can help managers to invest in CSR, which, by improving the well-being of their employees and the innovative capacity of their company, will lead to better performance and the capacity to adapt to the current changing environment. In addition, our results provide evidence that SMEs with fewer resources should be able to count on public support to carry out CSR practices.

Index Terms—Construction, corporate social responsibility (CSR), innovation, job satisfaction, partial least squares structural equation modeling (PLS-SEM), performance, SMEs.

I. INTRODUCTION

THE construction sector is considered one of the driving forces of the Spanish economy. At a relative level, this industry currently accounts for approximately 7% of the national total in terms of both employment and productivity [1]. These rates are similar to those of China, the United States, and the European Union [2]. Recently, construction has been significantly affected by COVID-19, yet it is critical to the post-COVID economic recovery [3]. To this end, it is important to highlight the drag effect that this sector has on other sectors of the economy [4]. Thus, while the Spanish productive fabric is not capable of

making a structural change so that other productive sectors with greater technological dynamism and growth potential replace construction, the desired return to economic growth and the generation of employment depends on helping the construction sector to emerge from the difficult moment in which it finds itself, as occurred in the previous economic crisis [5].

Corporate social responsibility (CSR) is an area of increasing importance in the construction sector. The CSR term has been thoroughly discussed [6] resulting in a wide array of concepts because defining CSR is complex and contingent on situational factors. The principal notions are the firm's commitment and the efforts made to improve the community's well-being through business practices and discretionary and corporate resource contributions [7], [8]. CSR encompasses a wide range of issues related to legal compliance, community, corporate governance, market relations, workers' rights, philanthropy, environmental protection, and the welfare of the surrounding community. [9]. Therefore, the main objective of CSR is to improve the well-being of its stakeholders (customers, suppliers, employees, shareholders, etc.) by mitigating existing social and environmental problems [10]. CSR is of particular importance in the construction sector, as this industry has often been criticized for having little respect for the environment, for being confrontational with its clients, and for being inconsiderate and indifferent towards society [11].

One key aspect in the construction industry is the study of business performance. Performance is seen as a concept of an organization's success and as an indication of how effectively the organization is performing in achieving its goals successfully [20], [21]. In this context, it is widely accepted that the construction industry is dynamic in nature, due to increasing uncertainties in technology, budgets, and development processes [22]. Thus, the highly competitive environment of the construction industry has made performance improvement an increasingly relevant objective [23], to determine the overall success of companies [24]. However, the innovative processes of construction companies have not been sufficient to promote productivity, quality, and ultimate value for money from an efficiency perspective [25], [26]. For this reason, we consider that promoting CSR is necessary for the business activities of these companies, since it will lead to greater technological flexibility [27] and it will change the social system of the organization [28], which will improve their competitive advantages [29] due to an increase in the efficiency and effectiveness in the business activity [30],

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in earnings [31] and in customers and employees satisfaction, contributing to improve society [32].

Companies that proactively engage in CSR activities and consider the interests of all stakeholders can gain support and trust from stakeholders such as employees [33]. Bauman and Skitka [34] indicate that job satisfaction can be influenced by a company's actions, including those that relate to CSR. In this sense, Ruiz-Palomo *et al.* [35] state that it is important to consider that social responsibility enclose employees' enrichment and empowerment, and organizational commitment is a key consequence of job satisfaction.

Job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job and job experience" [36]. The level of employee job satisfaction varies according to certain aspects and the nature of the job. Shabnam and Sarker [37] affirm that CSR should immediately enhance job satisfaction because demonstrated social responsiveness directly satisfies the employee's social requirements of the firm.

Although recent research results have demonstrated the impact of CSR on business performance [38], despite the increasing number of studies on the relationship between CSR and performance [39], [40], there are still few that address this relationship in the construction sector [41], and even fewer in the construction sector [42]. Consequently, the main objective of this article is to examine whether CSR is conducive to the performance of construction SMEs, through enhancing employee satisfaction and improving innovative capacity. To this end, we analyzed the effect on this relationship of the implementation of strategies aimed at improving job satisfaction and promoting innovative processes. The following research questions arise: Does CSR influence performance in SMEs? Is this influence mediated by job satisfaction and innovation? To answer these questions, we developed a structural equations modeling based on partial least squares (PLS-SEM) in order to test our hypotheses in a sample of 503 Spanish construction companies. Our article has a double purpose: confirmatory and predictive. We have analyzed the specific size of firm, sector, and country for several reasons.

- 1) SMEs play a significant role in the economy [43].
- 2) The approach to CSR is very different in SMEs than in large companies [44].
- 3) Although SMEs are of little importance individually, collectively their impacts can be huge [45].
- 4) The development of the construction sector is essential to achieve the economic recovery and employment generation destroyed by COVID-19.
- 5) The choice of a particular country has been motivated because the results of previous research in CSR show that cultural and legal differences among countries can lead to very different results [46].
- 6) The Information and Communication Technology adoption rate of a country is related to its specific culture [47]. Hence, our sample covers a gap in the current literature, as recommended by Beltramino [48].

This article provides an essential contribution to the literature by considering the CSR as a key business performance tool in SMEs in the construction sector, through the analysis of the relationship between CSR adoption and performance, and

by incorporating the mediating effects of job satisfaction and innovation. The inclusion of these two mediating effects seek to the inconclusive results concerning the effects of CSR on firm performance in the literature [49]. In addition, the findings can help SMEs managers to invest in CSR, which will lead to better performance and the ability to adapt to the current changing environment, by improving the well-being of their employees and the innovative capacity of their company. This is the most important practical implication of this research, covering the need to provide empirical work to create better CSR and innovation strategies [50], [51].

The rest of this article is organized as follows. Section II gives the hypotheses development; Section III exhibits the methodological aspects, whereas Section IV shows the results. Finally, Section V concludes this article.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

In recent decades, many researchers have tried to determine the influence of CSR on performance [49], [52]. Recent empirical evidence shows that the main objective of companies is to make a profit [53]. As profits increase, so does the social role of business, which will lead to an increase in the social responsibilities of business [54]. Thus, companies are not simply profit-making organizations but must respond to the needs of their stakeholders and strive for social support as corporate citizens [55]. However, adopting strategies that promote CSR will increase the company's good reputation, which will make the company more attractive in the labor market, and therefore attract more applicants [53]. Furthermore, the company's commitment to CSR leads to benefits for stakeholders: increased profits, generation of new jobs, social investment, extended agreements with suppliers... all of which are closely linked to the construction of the social fabric [56]. Therefore, CSR will positively influence the company's performance as it allows to resolve conflicts between stakeholders and thus maximize shareholder wealth [57]. Conversely, less CSR will disappoint these different stakeholder groups, which will have a negative effect on performance [58]. However, although previous studies have analyzed the performance of construction companies, to date the impact of CSR has not been examined.

For this reason, we propose the following research hypothesis:

H_1 : Corporate social responsibility has a positive effect on performance.

In SMEs, there is a virtuous circle between CSR and innovation, as the higher the CSR, the more innovative the SME will be [59]. In implementing CSR practices, companies are obliged to innovate, as their traditional way of doing things does not work and they must be supported by innovation to be able to implement these practices [60]. Furthermore, CSR requires the company to make innovative efforts to improve processes, products, and services, as well as to use inputs more efficiently [61]. On the other hand, recent developments in the field of innovation have affirmed that organizations that engage in innovative activities have higher business performance [62]–[66]. This is because companies that develop more innovative products and

services gain advantages over their competitors [67]. Because innovative products and services face less competition when being introduced in the market, enabling the company to increase profits and differentiate itself from the competition [68]–[70]. Thus, CSR offers companies an excellent opportunity to improve their efficiency, effectiveness, and innovative capacity [30]. This will lead to a change in its strategy and business model [43] with the aim of achieving more responsible products, services, and processes that satisfy the stakeholders' requirements [71]. This gives firms significant competitive advantages [29], [72], with greater opportunities for greater earnings [31]. In consequence, the adoption of a CSR-oriented strategy will lead to an increase in performance by increasing the innovative capacity of the company [73]. Hence, part of the impact of CSR on performance is given by innovation acting as a mediator between CSR and performance.

Given the above, we establish the following research hypothesis:

H₂: Innovation partially mediates the relationship between CSR and performance.

The human capital of a firm is recognized as one of the most important resources of a business [74]. Social responsibility to employees involves different activities like communication and information flow, adequate training, looking after the health and well-being of employees, balance of working and family life, and concern for the safety of the workplace [75]. Recently, some studies have investigated the influence of CSR on employees by investigating at organizational commitment, engagement, and identification with the organization. Many managers agree that companies with CSR practices are more likely to induce employees' positive emotions, have higher identification with the company, and agree with the company's values [76]. According to Lamm [77], employees who hold positive attitudes about their organizations will be more willing to direct their behavior to activities that are consistent with the goals and values of their firms, which means they will be willing to work harder for their companies. Nevertheless, most companies do not know how CSR has to be used to engage their employees [78].

Responsible activities of the firm favor employees' positive attitude and behavior, including job satisfaction [79]. Story and Castanheira [80] suggest that employees are more satisfied with their work in companies that perform social activities.

Job satisfaction is appropriate for understanding how organizational changes impact individuals' experience of their jobs and consequently is useful for assessing the consequences of organizational changes [81]. Employees' satisfaction is one of the most important factors for success in an organization. A satisfied workforce is imperative since organizational performance depends largely on employee satisfaction. Employees who have a high level of job satisfaction feel that their job give them positive aspects [35]. These employees will show extraordinary performance, and the company will be successful [82]. There is no doubt that employee satisfaction can improve business outcomes, enhance productivity and strengthen commitment [83]. Employee satisfaction has an important function in improving firm profitability and enhancing the operational performance of

organizations. Undoubtedly, employee satisfaction is basic to achieve the organizational growth and sustainability [84].

Research findings suggest that employee behavior impacts companies' outcomes [85] and greater job satisfaction may lead to higher employee commitment to business values and goals [86], [87]. However, the relationship between job satisfaction and organizational performance is complex. The studies conducted by Latif *et al.* [83], Harter *et al.* [88], Mafini and Pooe [89], and Bao [90] provide evidence of a strong and significant relationship between job satisfaction and organizational performance. Nevertheless, Daily and Near [91] and Mohr and Puck [92] found no statistically significant correlation between these two variables.

In addition, the CSR engagement affects employee satisfaction and this shows the effects of CSR on organizational outcomes [93]. Therefore, it can be argued that socially responsible firms will improve job satisfaction among their employees, which consequently will enhance performance.

Based on the above, we formulate the following research hypothesis:

H₃: Employee satisfaction partially mediates the relationship between CSR and performance.

Human capital is implicated in the innovation process because is needed for the development and implementation of innovation [91]. Human capital is seen as an input in the innovation process and therefore increases the capacity to innovate. A satisfied employee is more likely to be innovative and creative and produce breakthrough that makes possible for an organization to expand and revolutionize positively with passing time [94]. Concurrently, innovation is related to the growth of competitive advantage and performance [98], [99]. We believe that innovation can be conceptualized as a human capital related result, where some human capital practices, like job satisfaction [100], apply their influence on organization performance through innovation.

Finally, the relationship between CSR and innovation could be mediated by some variables such as human capital [43]. According to Rupp *et al.* [95], the CSR practices could affect employees in their organization and the values they have defined. At the same time, the innovation on SMEs is increased by the attitude and qualification of employees [96]. As Cinnirella and Streb [97] affirm, innovation needs satisfied human capital. The relationship between CSR and innovation has been analyzed and the results show a positive relationship [30], [98]. But CSR practices can help companies to preserve their employees more satisfied, which is necessary to improve the company innovation [99]. If the employee's sense that their company is better than the others in managing the relationship with them, it will help to boost their self-esteem and in turn affect their behavior and attitude positively [100].

In this context, few studies have been specifically conducted examining the effects of CSR on employee's attitudes and behavior [101], [102]. According to Aguinis and Glavas [103], though CSR initiatives garnered more attentions in the research, its influence on job satisfaction and the mediating influence has yet not been researched extensively. At the same time, the importance of employees as a source of innovation is supported

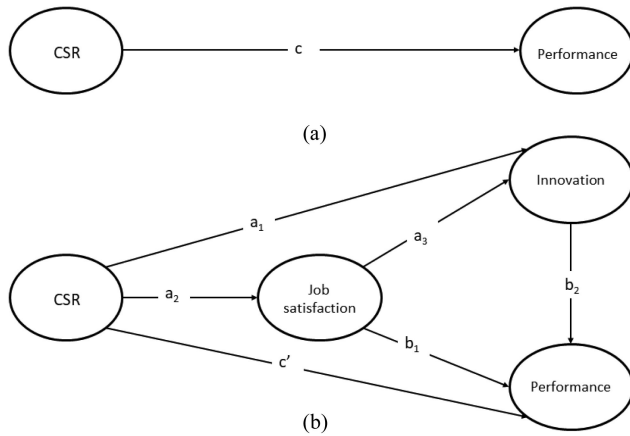


Fig. 1. Magnetization Model specifications. (a) Total effect model. (b) Mediated model.

by extant researchers [104], [105]. From these arguments, the following hypothesis is proposed:

Based on the information provided above, we state the following hypotheses:

H_4 : The effect of job satisfaction on performance is partially mediated by innovation.

H_5 : Job satisfaction partially mediates the relationship between CSR and innovation.

On the basis of all the above, it seems reasonable to think that socially responsible companies will undertake a series of actions that will lead to increased employee satisfaction by increasing CSR practices [75]. This increased job satisfaction will allow companies to attract and retain the best talent, which will increase their capacity to carry out innovative activities [43]. This increased innovative capacity will give companies a competitive advantage over their competitors, translating into increased performance [106]. Therefore, a sequential mediation of the relationship between CSR and performance by job satisfaction and innovation can be expected. Hence, we propose the following hypothesis:

H_6 : Employee satisfaction and innovation sequentially mediates the relationship between CSR and performance.

To test our hypotheses, we designed a model that on the one hand proposes that CSR has a direct impact on construction companies' performance, and on the other hand, aims to determine the mediating effect of innovation and job satisfaction on this relationship. Fig. 1 presents our research model.

III. METHODOLOGY

A. Population, Sample, and Data Collection Techniques

The construction industry has great economic relevance in Spain. In 2018, there were 411 074 construction SMEs according to the National Statistical Institute. Of these, SABI database contains financial information on 351 032, of which 503 microenterprises and SMEs were randomly selected once segmented by size, which is defined by the number of workers

TABLE I
SAMPLE COMPOSITION

Total companies		Micro companies		Small companies		Medium companies	
Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
503	100	218	43.3%	254	50.5%	31	6.2%

(micro company, from 6 to 9 employees; small company, from 10 to 49 employees; and medium-sized company, from 50 to 249 employees).

With a confidence level of 95% and taking into account the sample obtained, the maximum error in the estimation of the population was 4.53%. The survey was conducted anonymously with the aim of reducing social acceptance bias [107]. The t -test and the chi-squared test for all the variables verified that there were no extreme values in the sample and confirmed that if we compare the first answers with the last ones, the nonresponse bias was not an issue. In reference to a possible concern arising from collecting all the data from the same source, the results of the variance inflation factors (VIF) were verified. As will be seen below, all the results are below 3.3. (the maximum value is 1.273), and therefore, common method bias is not an issue in this study [108], [109]. Moreover, Harman's single factor test [110] has been applied. The findings reveal that four factors (KMO: 0.895; Bartlett sphericity test Sig. 0.000) explain 62.09% of the total variance of the model, and performance (the main factor) explains 30.25%, which corroborates that the presence of common method variance bias [111] there is not an issue in this model. However, it would still be recommendable for further research to use a variety of sources to gather the information.

Using the G*Power 3.1.9.2 program [112], we have calculated the statistical power of our sample assuming a standard error of 0.05 and an effect size of 0.15 [113]. The result obtained is 1, which confirms that in this model significant relationships can be identified and that the sample size is sufficient for the magnitude of the effects found.

To conduct a quantitative study, the data were collected through a survey directed towards Spanish SMEs. Firms that did not want to take part were replaced by others of similar size. The fieldwork was carried out in the first four months of 2018 through telephone surveys with firm managers, since they are the most important decision-makers [114]. A pretest was used to check the ease of understanding of the questionnaire. Table I shows the distribution of the final sample, which comprises 503 Spanish Construction SMEs.

B. Measurements

First, on the assumption that there is no unified way to measure CSR [115], we measured CSR using a latent variable consisting of seven items which were adopted from the literature [10], [116]–[121], and previously used by Santos *et al.* [43]. To find out the level of CSR practices carried out by companies, we have asked about aspects such as the knowledge and application of CSR in the company [10], [116], the relationship between

social and economic values [117], [118], as well as about energy and other resource consumption [117]–[121]. Moreover, information has been collected about the image and reputation of the company [10], [121] and about company transparency in dealing with clients and suppliers [117]–[120], [122]. Second, for job satisfaction, a latent variable with six indicators was used. This construct measures aspects related to personnel management in the company with the aim of finding out the practices carried out by companies to increase employee satisfaction. For this purpose, we took into account the literature [82], [93], [123], [124], and we have asked about aspects such as equal pay policies, job flexibility, career development, fairness in recruitment, and employee participation in decision making. Third, innovation was measured using a scale in which products and processes of innovation are distinguished [125]. For this purpose, we have asked about aspects such as changes or improvements in existing products and/or services, the launching of new products and/or services, changes or improvements in production processes, and new property or equipment acquisition. Finally, in line with Ali *et al.* [126], performance was measured through the balanced scorecard approach established by Kaplan and Norton [127]. We have asked about aspects such as quality products, efficiency in process, profitability, sales, and customer satisfaction for this construct. Table II summarizes the definition and composition of the variables associated with each construct.

IV. METHODOLOGY

A. Statistical Procedure

Our model contains four composite variables [128], [129]. Therefore, PLS-SEM technique is the most appropriate for analyzing the model [130]. These composites are performed in mode A because of the high correlation between indicators [131]. Moreover, PLS-SEM is also pretty robust when regressors are not included [132]. In addition, PLS-SEM is an appropriate technique to use in a theory development such as this research [133], and where the model includes mediating variables [66], [134]. Another important reason for using this technique is that the model was estimated from a causal-predictive perspective [109] by using SmartPLS 3.3.3. [135]. Finally, PLS-SEM is also suitable in this study because it does not require specific distribution in the indicators [128], it evades severe troubles such as inadmissible or improper solutions and indeterminate factors [136].

To check the hypotheses, a bootstrap method based on 10 000 subsamples was applied. We assess our PLS model in several phases: measurement model, structural model, mediation analysis, and predictive performance.

B. Measurement Model Evaluation

The constructs in the model were measured in terms of reliability and validity. The factor loadings, Cronbach's Alpha, composite reliability [128], the Dijstra-Henseler rho ratio [137], and the average variance extracted (AVE) are reported in Table III. All the results exceed their shortcut values. Regarding the relevance and significance of the measures, most of the items'

TABLE II
MEASUREMENT VARIABLES

CSR	
Regarding the CSR in your company, assess your level of conformity, 0 (absolutely disagree) to 5 (absolutely agree), with the following statements	
CSR.1	Is widely known by management and applied in company management
CSR.2	Means achieving social value as well as economic value
CSR.3	The company carries out its activities consuming less energy and other resources
CSR.4	Effective recycling measures exist
CSR.5	The image and reputation of the company has improved in the last three years
CSR.6	Transparency when dealing with clients and suppliers has improved in recent years
CSR.7	Priority is given to working with local suppliers and raw materials
Job Satisfaction	
Indicate how much you agree with the state of your firm regarding its employees, from 1 (absolutely disagree) to 5 (absolutely agree)	
JBS.1	The level of satisfaction/motivation of employees has improved in the last few years
JBS.2	There is work flexibility (flexible working hours)
JBS.3	Pay equity has been ensured
JBS.4	Career development has been facilitated
JBS.5	Opportunities to participate in decision making have been provided
JBS.6	The requirements set for each position have been rigorously applied in the recruitments
Innovation	
Indicate if your company has made the following innovations in the last two years and, if so, indicate the degree of importance of each from 1 (minimum importance) to 5 (maximum importance)	
INNV.1	Modifications or enhancements in existing products/services
INNV.2	The launching of new products/services in the market
INNV.3	Modifications or enhancements in production processes
INNV.4	Acquisition of new property or equipment
INNV.5	New changes or improvements in organization and/or management
INNV.6	<i>New changes or improvements in purchasing and/or procurement</i>
INNV.7	New changes or improvements in commercial and/or sales
Performance	
In comparison with your competitors, show your level of conformity with the following performance indicators of your company, from 1 (absolutely disagree) to 5 (absolutely agree)	
PERF.1	Your company offers higher quality products
PERF.2	Your company has more efficient internal processes
PERF.3	Your company has more satisfied customers
PERF.4	Your company adapts earlier to changes in the market
PERF.5	Your company is growing more
PERF.6	Your company is more profitable
PERF.7	Your company has more satisfied/motivated employees
PERF.8	Your company has a lower absenteeism

The indicators in italics were not included in latent variables due to convergent and discriminant criteria of consistent PLS path modeling. All the measures were Likert-type scales, from 0 to 5.

The indicators in italics were not included in latent variables due to convergent and discriminant criteria of consistent PLS path modeling. All the measures were Likert-type scales, from 0 to 5.

TABLE III
MEASUREMENT MODEL RESULTS

	Mean	SD	Loading	t***	Q ²	α	ρ_A	ρ_C	AVE
CSR						0.85	0.87	0.88	0.52
CSR.1	3.78	0.95	0.69	18.34					
CSR.2	3.71	0.92	0.72	22.18					
CSR.3	3.69	0.98	0.67	17.92					
CSR.4	3.88	1.02	0.69	18.93					
CSR.5	3.94	0.85	0.81	46.78					
CSR.6	3.94	0.87	0.84	50.58					
CSR.7	4.13	0.91	0.61	14.23					
Job Satisfaction					0.30	0.80	0.81	0.86	0.50
JBS.1	3.71	0.88	0.67	22.56	0.17				
JBS.2	3.46	1.18	0.63	17.01	0.21				
JBS.3	3.58	1.10	0.71	20.68	0.31				
JBS.4	3.20	1.24	0.69	20.34	0.32				
JBS.5	3.51	1.02	0.77	31.89	0.38				
JBS.6	3.32	1.09	0.76	26.80	0.40				
Innovation					0.05	0.89	0.90	0.91	0.64
INNV.1	2.82	2.07	0.81	40.10	0.07				
INNV.2	2.16	2.15	0.70	19.58	0.01				
INNV.3	2.53	2.15	0.84	47.78	0.08				
INNV.4	2.84	2.08	0.82	39.44	0.06				
INNV.5	2.45	2.17	0.80	34.19	0.06				
INNV.6	2.22	2.19	0.82	38.77	0.04				
Performance					0.19	0.90	0.91	0.92	0.60
PERF.1	4.05	0.81	0.70	20.85	0.14				
PERF.2	3.85	0.84	0.80	37.21	0.21				
PERF.3	4.07	0.77	0.81	32.80	0.22				
PERF.4	3.95	0.79	0.81	32.82	0.23				
PERF.5	3.77	0.87	0.71	22.29	0.11				
PERF.6	3.72	0.88	0.75	26.55	0.12				
PERF.7	3.90	0.86	0.85	53.32	0.29				
PERF.8	4.00	0.89	0.75	24.17	0.22				

Significance and standard deviations (SD) performed by 10 000 repetitions Bootstrapping procedure. Q_B^2 : cross-validated redundancies index performed by a 9-step distance-blindfolding procedure. α : Chronbach's alpha; ρ_A : Dijkstra-Henseler's composite reliability; ρ_C : Jöreskog's composite reliability; AVE: Average Variance Extracted; ***: All loadings are significant at a 0.001 level.

loads on their respective constructs were more than 0.7, the shortcut value [109]. Although there were some items with a loading that varied between 0.696 and 0.609, these loading were acceptable [138]. Therefore, convergent validity and reliability are demonstrated. In addition, to determine the overall predictive relevance of the model, a confirmatory composite analysis test was performed using a blindfolding procedure (omission distance of 9). This was the first step in confirming the quality of the model, as the values of Q2 values are above 0 [139], confirming the predictive relevance of the model.

TABLE IV
DISCRIMINANT VALIDITY

		I	II	III	IV
I	CSR	0.72	<i>0.51</i>	<i>0.29</i>	<i>0.53</i>
II	Job Satisfaction	0.45	0.71	<i>0.33</i>	<i>0.53</i>
III	Innovation	0.28	0.29	0.80	<i>0.32</i>
IV	Performance	0.48	0.47	0.29	0.77

HTMT ratio over the diagonal (italics). Fornell-Larcker criterion: square root of AVE in diagonal (bold) and construct correlations below the diagonal.

In the second stage, discriminant validity was measured through cross-loadings (not reported), the Fornell-Larcker criterion, and the Heterotrait-monotrait (HTMT) criterion in variance-based SEM [140]. The results are shown in Table IV. According to the Fornell-Larcker criterion, the correlations between each pair of constructs did not exceed the square root of the AVE of each construct. Similarly, the level of the HTMT between each two constructs varies from 0.282 to 0.593. These levels are lower than the maximum recommended of 0.85 [141]. The results show the existence of discriminant validity.

Furthermore, this research measured quality by checking that the standardized root mean square residual does not exceed the value of 0.08 [142], [143]. These findings prove a good fit in model specifications.

C. Structural Model Evaluation and Hypotheses Testing

The results in Table V shows that VIFs constructs ranged from 1.00 to 1.27, suggesting that in this research there is no problem with the collinearity [144].

Once the measurement model has been accepted and collinearity problem has been rejected, we next measured the R2 values of endogenous constructs, the algebraic sign, magnitude, significance, and the f2 values of the standardized regression coefficients [145]. For this purpose, a bootstrapping (10 000 resamples) process was run in order to obtain *t*-values and percentile confidence intervals [146].

In concordance with previous studies [49], [52], [80], all the proposed hypotheses have been supported. A positive and significant relationship between CSR and performance was demonstrated as the coefficient linked to this path is $\beta = 0.319***$, verifying H1. The path coefficient from CSR to innovation was also positive ($\beta = 0.186***$) and significant, supporting H2a. Regarding the relationship between innovation and performance, the effect was again direct and positive ($\beta = 0.115***$). A strong positive effect of CSR on job satisfaction was found ($\beta = 0.448***$). Finally, the results also indicated a positive and significant influence of job satisfaction on performance and on innovation ($\beta = 0.300***$ and $\beta = 0.208**$ respectively).

The results regarding the R2 of the endogenous variables are 0.200 for job satisfaction, 0.091 for innovation and 0.331 for performance. Taking as a reference the criterion of being at least close to 0.1 [147], these results indicate the model has a good explanatory power, especially in the case of performance [148].

According to Cohen [113], effect sizes (f2) evaluate the contribution of each exogenous construct to the R2 values of

TABLE V
STRUCTURAL MODEL AND HYPOTHESES TESTING

	Path	T-value	f ²	95CI		H	Supported
Direct effects					VIF		
CSR -> Performance	0.319	5.605***	0.124	[0.217-0.436]	1.27	H ₁	Yes
CSR -> Innovation	0.186	3.921***	0.048	[0.140-0.321]	1.22		
Innovation -> Performance	0.115	2.822**	0.026	[0.060-0.216]	1.10		
CSR -> Job Satisfaction	0.448	12.136***	0.251	[0.389-0.511]	1.00		
Job Satisfaction -> Performance	0.300	7.429***	0.107	[0.235-0.367]	1.30		
Job Satisfaction -> Innovation	0.208	4.221**	0.042	[0.128-0.290]	1.25		
Indirect effects					VAF		
<i>Individual indirect effects</i>							
CSR -> Innovation -> Performance	0.021	2.264*		[0.012-0.056]	4.32%	H ₂	Yes
CSR -> Job Satisfaction -> Performance	0.134	6.401***		[0.103-0.171]	27.57%	H ₃	Yes
Job Satisfaction -> Innovation -> Performance	0.024	2.290*		[0.009-0.043]	7.82%	H ₄	Yes
CSR -> Job Satisfaction -> Innovation	0.093	3.873***		[0.056-0.136]	33.10%	H ₅	Yes
CSR -> Job Satisfaction -> Innovation -> Performance	0.011	2.234*		[0.004-0.019]	2.26%	H ₆	Yes
<i>Global indirect effects</i>							
CSR -> Performance	0.166	7.538***		[0.133-0.206]	34.16%		
CSR -> Innovation	0.093	3.873***		[0.056-0.136]	33.10%		
Job Satisfaction -> Performance	0.024	2.290*		[0.009-0.043]	7.82%		
Total effects							
CSR -> Performance	0.485	9.99***		[0.217-0.348]			
CSR -> Innovation	0.280	7.08***		[0.206-0.361]			
Job Satisfaction -> Performance	0.324	8.138***		[0.259-0.390]			

R² adjusted [99% CI in brackets]: Job Satisfaction: 0.200 [0.152; 0.261]; Innovation: 0.091 [0.054; 0.146]; Performance: 0.331 [0.245; 0.430]. Blindfolding Q² index as shown in Table III; Standardized path values reported. SD: Standard Deviation; f²: size effect index; 95CI: 95% Bias Corrected Confidence Interval; VIF: Inner model Variance Inflation Factors; VAF: Variance Accounted Formula x 100 represents the proportion mediated. Significance, standard deviations, 95% bias-corrected CIs were performed by 10000 repetitions Bootstrapping procedure; *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$. Only total effects that differ from direct effects are shown.

an endogenous latent variable. Values of 0.02, 0.15, and 0.35 indicate a weak, medium, or large effect, respectively. All links except one (job satisfaction), reach f² values above the minimum level of 0.02 [148]. In particular, the results show that CSR has an important effect on job satisfaction. Overall, these results show that the proposed model has adequate structural properties and acceptable explanatory power.

D. Multiple Mediation Analysis

Once the direct effects between the different variables have been analyzed and taking into account that the main objective of this research is to analyze the effect of CSR on performance, additional tests were developed to prove if job satisfaction and innovation mediate this relationship, which constitutes a case of multiple mediation. In this stage, the indirect effects have been contrasted with the mediators job satisfaction and innovation. Similarly, the total effect (c) and the direct effect (H₁ = c') have

been examined. As established by Chin [148], a bootstrapping technique with 10 000 samples has been used to determine the indirect effects. This generates 95% bias-corrected CIs for each individual indirect effect and sequential mediation. Moreover, this research also examined the variance accounted for (VAF) [109], which determines the size of the indirect effect in relation to the total effect. The results are shown in addition to Table V above, in Fig. 2.

The results show how the indirect effects of CSR on performance through innovation and job satisfaction are both positive and significant ($\beta = 0.021^*$ and $\beta = 0.134^{***}$ respectively, plus a sequential indirect effect $\beta = 0.011^*$). Regarding the VAF, the indirect effect of CSR on performance is about 31.16% of the total effect, with 4.32% through innovation, 27.57% through job satisfaction, and an additional 2.26% sequentially. Since both direct and indirect effects are significant, and the proportions mediated are not prominent, a partial mediation is suggested in all cases, supporting H₂, H₃, and H₆. Furthermore, the indirect

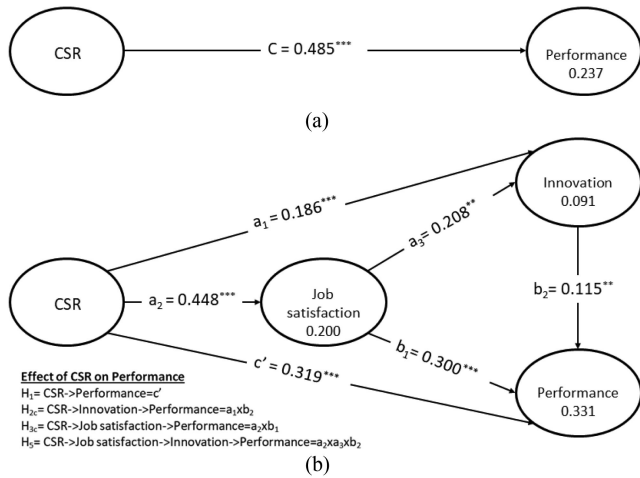


Fig. 2. Multiple mediation analysis. ** $p < 0.01$; *** $p < 0.001$.

effect of job satisfaction on performance is positive and significant ($\beta = 0.024^*$). The proportion mediated by innovation is 7.82% (VAF) of the total effect of job satisfaction on performance, supporting H_4 . Finally, job satisfaction partially mediates between CSR and innovation ($\beta = 0.093^{***}$), with 33.10% (VAF) of the total effect of CSR on innovation, supporting H_5 .

In conclusion, the findings suggest that the relationship between CSR and performance is mediated by job satisfaction and innovation. The more deeply companies involve themselves in CSR, the better their performance becomes. In addition, the effect of CSR on performance increases when the mediating variables are considered.

E. Evaluation of the Predictive Performance

According to Shmueli [149], the predictive performance of a model is the capability to produce correct predictions of further observations. In this vein, predictive validity (out-of-sample prediction) shows that a given set of measures of a particular variable can predict a given outcome variable [150]. This has been assessed through a cross-validation with holdout samples [151] by applying the PLS predict algorithm with SmartPLS [152].

First, a k-fold cross-validation was executed, setting $k = 7$ subgroups, with the aim of meeting the minimum size of $N = 30$ for the holdout sample [109], with ten repetitions of the procedure. Next, a PLS predict analysis was run in the model [153].

The results in Table VI show that in both construct and indicator levels all the Q^2 values are above 0. Therefore, the model offers a satisfactory predictive performance [154]. Moreover, a similar conclusion was obtained at the indicator levels when the results in terms of RMSE or MAE of the PLS-SEM were compared with those of the linear regression model (LM). In most cases, and especially in the constructs referring to Performance, PLS-SEM findings have a lower prognostication error and greater Q^2 . This would mean a theoretically established path model improves (or at least does not worsen) the predictive performance of the available indicator data [154].

In summary, this model has the power to predict values for further observations of Job Satisfaction, Innovation, and Performance variables using data that are not included in those used to test the research model [155]. As a result, an additional support for the model tested in this research has been offered by the predictive validity [154].

V. DISCUSSION AND CONCLUSION

This article has addressed the question of whether CSR contributes to improve SMEs performance in the construction sector, and whether this relationship is mediated by job satisfaction and innovation. It uses a sample of 503 Spanish construction companies.

In line with previous studies [49], [52], the findings demonstrate that performance is influenced by CSR, job satisfaction, and innovation. These effects are not only direct and positive but significant indirect effects are also achieved, which increase the positive effects of CSR. The results show that the performance of SMEs benefits from CSR, because CSR enables business growth by generating benefits for stakeholders and enhancing the company's reputation [56]. As a result, this social commitment made by the company will increase the competitive advantages for companies, so improving their market position [156].

The results also indicate that CSR practices are relevant for job satisfaction. This is in line with Story and Castanheira [80] and Tamm *et al.* [157], who find that if a company has a powerful CSR strategy, the employees will feel more satisfied at work, and at the same time, employee satisfaction has a significant function in improving corporate performance [83], [89]. Our results also indicate that job satisfaction mediates in the relationship between CSR and performance. As a result, companies that invest in CSR practices have employees who are more satisfied and who in turn perform better. These results are consistent with Story and Castanheira [80].

The results for Hypothesis 3 indicate that when only job satisfaction and business performance are considered, the relationship is positive and significant. There is also a significant relationship between job satisfaction and innovation. This was expected because when the employees are satisfied they contribute to the development of the innovative process. This finding is consistent with previous research [94], [158] and it confirms the positive and significant relationship between job satisfaction and innovation. Moreover, our results indicate that innovation mediates the relationship between job satisfaction and business performance. To achieve better business performance, managers have to improve the innovation process by managing job satisfaction. This result is consistent with Alrubaiee *et al.* [159]–[161], who found that job satisfaction has an influence on business performance through innovation.

Furthermore, our results also indicate that job satisfaction mediates the relationship between CSR and innovation. This implies that CSR leads to better innovation in Spanish SMEs through job satisfaction. This results are consistent with Santos-Jaén *et al.* [43].

In addition, it is interesting to highlight the indirect effect of CSR on performance through innovation. Our results are in

TABLE VI
PLS PREDICT ASSESSMENT

CONSTRUCT PREDICTION SUMMARY									
	Q ²								
JOB SATISFACTION	0.192								
INNOVATION	0.072								
PERFORMANCE	0.225								
INDICATOR PREDICTION SUMMARY									
Indicator	PLS			LM			PLS-LM		
	RMSE	MAE	Q ²	RMSE	MAE	Q ²	RMSE	MAE	Q ²
JBS.1	0.814	0.653	0.145	0.815	0.646	0.143	-0.001	0.007	0.002
JBS.2	1.139	0.921	0.084	1.145	0.921	0.075	-0.006	0.000	0.009
JBS.3	1.051	0.833	0.092	1.053	0.835	0.088	-0.002	-0.002	0.004
JBS.4	1.216	1.007	0.037	1.216	1.009	0.037	0.000	-0.002	0.000
JBS.5	0.964	0.768	0.117	0.969	0.767	0.108	-0.005	0.001	0.009
JBS.6	1.055	0.848	0.063	1.060	0.855	0.054	-0.005	-0.007	0.009
INN.1	2.006	1.799	0.063	2.006	1.778	0.063	0.000	0.021	0.000
INN.2	2.143	2.054	0.008	2.139	2.035	0.011	0.004	0.019	-0.003
INN.3	2.085	1.949	0.062	2.086	1.919	0.062	-0.001	0.030	0.000
INN.4	2.036	1.824	0.046	2.010	1.786	0.070	0.026	0.038	-0.024
INV.5	2.110	1.979	0.060	2.121	1.968	0.050	-0.011	0.011	0.010
INV.6	2.162	2.054	0.028	2.166	2.049	0.025	-0.004	0.005	0.003
PERF.1	0.774	0.585	0.085	0.778	0.590	0.076	-0.004	-0.005	0.009
PERF.2	0.790	0.612	0.127	0.797	0.619	0.111	-0.007	-0.007	0.016
PERF.3	0.701	0.531	0.166	0.708	0.536	0.148	-0.007	-0.005	0.018
PERF.4	0.726	0.542	0.153	0.733	0.548	0.137	-0.007	-0.006	0.016
PERF.5	0.838	0.675	0.066	0.841	0.681	0.060	-0.003	-0.006	0.006
PERF.6	0.845	0.667	0.083	0.850	0.676	0.071	-0.005	-0.009	0.012
PERF.7	0.768	0.583	0.199	0.775	0.585	0.184	-0.007	-0.002	0.015
PERF.8	0.812	0.608	0.173	0.820	0.612	0.157	-0.008	-0.004	0.016

PLS: Partial least squares path model; LM: Linear regression model; RMSE: Root mean squared error; MAE: Mean absolute error. Q²: PLS-predict index performed with 10 k-fold and 10 repetitions.

line with those observed in previous studies, which claim that CSR changes the corporate business model [162] by increasing the innovative capacity of organizations [59]. In this vein, the results of this study underline the findings of much of the previous work in this field, which affirms that the adoption of new technologies is the nexus between CSR and performance [163]. This is because when an SME implements CSR in its business process, it requires a higher degree of innovation to be able to do so [29]. Innovation will also give the organization advantages over its competitors, as the new innovative product will have greater differentiation, leading to lower barriers to market entry [68], [69]. Innovation will therefore provide certain competitive advantages that will enhance business performance [63], [72].

Finally, this article builds an in-depth analysis of the influence of CSR on companies' performance by investigating

the mediating effects of both job satisfaction and innovation simultaneously and sequentially. The results reveal that both job satisfaction and innovation play important mediating roles in the understanding of the relationship between CSR and companies' performance. In conclusion, the higher the CSR, the greater the performance of companies. But not only due to the effects of CSR on the company, but also because of the increased capacity of the company to carry out innovative activities, which is partly achieved by a better and greater predisposition of its human capital.

With these findings, we contribute to filling a gap related to the direct effect of CSR on performance, and the indirect effect through the mediation of job satisfaction and innovation in a specific sector, in this case, construction Spanish SMEs. Moreover, our model has demonstrated a predictive power to support the research model proposed [150].

This article makes important contributions to the theory and research on CSR, innovation, human resources management, and performance in SMEs by integrating into the literature the roles that job satisfaction and innovation play as enhancers in the relationship between CSR and performance in construction SMEs. In particular, this study has implications for the ongoing debate regarding the antecedents of performance in an SME setting.

This article highlights several important implications. From a practical point of view, it will help many SME managers to reconsider their thoughts about CSR, from considering it as a cost to considering it as a source of competitive advantage in the medium term [164]. This paradigm shift is an opportunity for SMEs to begin a process of strategic change by orienting their human resources management and innovative activity more and more towards CSR, which will undoubtedly increase their capacity to adapt to the environment they cohabit [165]. This is essential for their survival at a time like the current one, when the pandemic generated by COVID-19 threatens to close down a large number of companies. This new, more responsible, approach will also enable them to increase their performance. Therefore, this study suggests to SME managers that investing part of their resources in CSR is not only beneficial to society but also the companies themselves.

Furthermore, in line with Fernández-Gámez *et al.* [166], the results provide governments with evidence that responsible practices are capable of generating value for firms and ensuring their survival. For this reason, especially SMEs with fewer resources should be able to count on public support to carry out CSR actions [167] in the form of incentives or subsidies to establish CSR projects [168]. This will help the construction sector to be one of the economic engines that will enable a return to economic growth and employment creation.

The present article should be evaluated in the light of its limitations, which could reveal further lines of research. First, the sample only includes construction Spanish SMEs. Hence, the results could not be generalized to other sectors and other regions [169]. It would be attractive to extend the research in other geographical areas or/and sectors, so the results obtained could be compared [30]. Second, the article has been carried out applying transversal data. In this sense, a longitudinal study would be interesting in order to analyze the time effects in the proposed model [170]. Third, it could also be interesting to use quantitative data, instead of a unique source, the judgment of SME managers [171].

Despite the above limitations, this research brings new insights into the connection between CSR and performance, accepting that this relationship can be mediated by job satisfaction and innovation.

REFERENCES

- [1] S. Martín, F. J. Martínez, E. Ortiz, and J. M. Santos, "Una perspectiva económica de la situación de la industria en España: Actualización 2020," in *Bárometro Ind.: Informe Nacional*. Madrid, Spain: Consejo General de Economistas, 2020, pp. 43–68.
- [2] Q. Zhang, B. L. Oo, and B. T. H. Lim, "Drivers, motivations, and barriers to the implementation of corporate social responsibility practices by construction enterprises: A review," *J. Clean. Prod.*, vol. 210, pp. 563–584, 2019. doi: [10.1016/j.jclepro.2018.11.050](https://doi.org/10.1016/j.jclepro.2018.11.050).
- [3] S. Stiles, D. Golightly, and B. Ryan, "Impact of COVID-19 on health and safety in the construction sector," *Human Factors Ergon. Manuf. Serv. Ind.*, vol. 31, pp. 425–437, Jan. 2021. doi: [10.1002/hfm.20882](https://doi.org/10.1002/hfm.20882).
- [4] Oxford Economics, "A global forecast for the construction industry to 2030," London, U.K.: Global Construction Perspectives and Oxford Economics, 2015.
- [5] J. M. Santos-Jaén, "La empresa constructora en su configuración y desenvolvimiento jurídico. Especial atención a la contratación con las administraciones públicas," Ph.D. dissertation, Dept. Social, Legal Bus. Sci. Catholic Univ. Murcia (UCAM), Murcia, Spain, Murcia, Spain, 2011.
- [6] M. Göbbels, "Reframing corporate social responsibility: The contemporary conception of a fuzzy notion," *J. Bus. Ethics*, vol. 44, pp. 95–105, 2002.
- [7] P. Kotler and N. Lee, "Best of breed: When it comes to gaining a market edge while supporting a social cause, 'Corporate social marketing' leads the pack," *Soc. Mar. Q.*, vol. 11, no. 3–4, pp. 91–103, Dec. 2005. doi: [10.1080/15245000500414480](https://doi.org/10.1080/15245000500414480).
- [8] A. R. Dobeles, K. Westberg, M. Steel, and K. Flowers, "An examination of corporate social responsibility implementation and stakeholder engagement: A case study in the Australian mining industry," *Bus. Strategy Environ.*, vol. 23, no. 3, pp. 145–159, 2014.
- [9] A. Waheed, Q. Zhang, Y. Rashid, and S. Zaman Khan, "The impact of corporate social responsibility on buying tendencies from the perspective of stakeholder theory and practices," *Corp. Soc. Responsibility Environ. Manag.*, vol. 27, no. 3, pp. 1307–1315, 2020.
- [10] G. Adinata, "CSR expenditures, financial distress prediction, and firm reputation: A pathway analysis," *Perspekt. Akunt.*, vol. 2, no. 1, pp. 1–18, 2019.
- [11] S. Barthorpe, "Implementing corporate social responsibility in the U.K. construction industry," *Property Manag.*, vol. 28, no. 1, pp. 4–17, Feb. 2010. doi: [10.1108/02637471011017145](https://doi.org/10.1108/02637471011017145).
- [12] C. M. Tam, V. W. Y. Tam, and S. X. Zeng, "Environmental performance evaluation for construction," *Building Res. Inf.*, vol. 30, no. 5, pp. 349–361, Sep. 2002. doi: [10.1080/09613210210150964](https://doi.org/10.1080/09613210210150964).
- [13] H. J. Wu, "Construct green building and promote sustainable development in construction industry," *Engineering*, vol. 22, pp. 29–30, 2008.
- [14] Z.-Y. Zhao, X.-J. Zhao, K. Davidson, and J. Zuo, "A corporate social responsibility indicator system for construction enterprises," *J. Clean. Prod.*, vol. 29–30, pp. 277–289, Jul. 2012. doi: [10.1016/j.jclepro.2011.12.036](https://doi.org/10.1016/j.jclepro.2011.12.036).
- [15] A. C. Trierweiler, B. C. S. Peixe, L. M. S. Campos, and A. C. Bornia, "Selection process theoretical framework: Environmental performance evaluation," in *Proc. 3rd Int. Workshop Adv. Clean. Prod.*, 2011, pp. 1–12.
- [16] O. O. Ololade and P. P. Rametse, "Determining factors that enable managers to implement an environmental management system for sustainable construction: A case study in Johannesburg," *Bus. Strategy Environ.*, vol. 27, no. 8, pp. 1720–1732, Dec. 2018. doi: [10.1002/bse.2237](https://doi.org/10.1002/bse.2237).
- [17] A. M. Turk, "The benefits associated with ISO 14001 certification for construction firms: Turkish case," *J. Clean. Prod.*, vol. 17, no. 5, pp. 559–569, Mar. 2009. doi: [10.1016/j.jclepro.2008.11.001](https://doi.org/10.1016/j.jclepro.2008.11.001).
- [18] B. Xia, A. Olanipekun, Q. Chen, L. Xie, and Y. Liu, "Conceptualising the state of the art of corporate social responsibility (CSR) in the construction industry and its nexus to sustainable development," *J. Clean. Prod.*, vol. 195, pp. 340–353, Sep. 2018. doi: [10.1016/j.jclepro.2018.05.157](https://doi.org/10.1016/j.jclepro.2018.05.157).
- [19] P. Kimmet, "Comparing 'socially responsible' and 'sustainable' commercial property investment," *J. Property Investment Finance*, vol. 27, no. 5, pp. 470–480, Aug. 2009. doi: [10.1108/14635780910982340](https://doi.org/10.1108/14635780910982340).
- [20] D. J. Cherrington, *Organizational Behavior: The Management of Individual and Organizational Performance*. Boston, U.K.: Allyn and Bacon, 1994.
- [21] O. Taouab and Z. Issor, "Firm performance: Definition and measurement models," *Eur. Sci. J.*, vol. 15, no. 1, pp. 93–106, Jan. 2019. doi: [10.19044/esj.2019.v15n1p93](https://doi.org/10.19044/esj.2019.v15n1p93).
- [22] A. P. C. Chan and A. P. L. Chan, "Key performance indicators for measuring construction success," *Benchmarking, Int. J.*, vol. 11, no. 2, pp. 203–221, Apr. 2004. doi: [10.1108/14635770410532624](https://doi.org/10.1108/14635770410532624).
- [23] I. M. Horta and A. S. Camanho, "Competitive positioning and performance assessment in the construction industry," *Expert Syst. Appl.*, vol. 41, no. 4, pp. 974–983, Mar. 2014. doi: [10.1016/j.eswa.2013.06.064](https://doi.org/10.1016/j.eswa.2013.06.064).
- [24] M. S. El-Mashaleh, R. E. Minchin, and W. J. O'Brien, "Management of construction firm performance using benchmarking," *J. Manag. Eng.*, vol. 23, no. 1, pp. 10–17, Jan. 2007. doi: [10.1061/\(ASCE\)0742-597X\(2007\)23:1\(10\)](https://doi.org/10.1061/(ASCE)0742-597X(2007)23:1(10)).

- [25] G. M. Winch, "How innovative is construction? Comparing aggregated data on construction innovation and other sectors – A case of apples and pears," *Constr. Manag. Econ.*, vol. 21, no. 6, pp. 651–654, Sep. 2003. doi: [10.1080/0144619032000113708](https://doi.org/10.1080/0144619032000113708).
- [26] C. A. Jensen, "Staged competition as a driver of construction innovation," *Procedia Eng.*, vol. 196, pp. 872–879, 2017. doi: [10.1016/j.proeng.2017.08.019](https://doi.org/10.1016/j.proeng.2017.08.019).
- [27] I. Gallego-Álvarez, J. M. Prado-Lorenzo, and I. García-Sánchez, "Corporate social responsibility and innovation: A resource-based theory," *Manag. Decis.*, vol. 49, no. 10, pp. 1709–1727, 2011.
- [28] F. Damanpour, K. A. Szabat, and W. M. Evan, "The relationship between types of innovation and organizational performance," *J. Manag. Stud.*, vol. 26, no. 6, pp. 587–601, 1989.
- [29] J. G. Arévalo-Ascanio, R. A. Bayona-Trillos, and D. W. Rico-Bautista, "Responsabilidad social empresarial e innovación: Una mirada desde las tecnologías de la información y comunicación en organizaciones," *Clío América*, vol. 9, no. 18, pp. 180–189, 2015.
- [30] I. Martínez-Conesa, P. Soto-Acosta, and M. Palacios-Manzano, "Corporate social responsibility and its effect on innovation and firm performance: An empirical research in SMEs," *J. Clean. Prod.*, vol. 142, pp. 2374–2383, 2017.
- [31] K. Schroeder and B. Kilian, "El efecto de las prácticas de RSE en los ingresos de los negocios," Washington, EEUU: Banco Interamericano de Desarrollo, 2007.
- [32] A. Tziner, L. Oren, Y. Bar, and G. Kadosh, "Corporate social responsibility, organizational justice and job satisfaction: How do they interrelate, if at all?," *Rev. Psicol. del Trab. y las Organ.*, vol. 27, no. 1, pp. 67–72, 2011. doi: [10.5093/tr2011v27n1a7](https://doi.org/10.5093/tr2011v27n1a7).
- [33] C. B. Bhattacharya, D. Korschun, and S. Sen, "Strengthening stakeholder–company relationships through mutually beneficial corporate social responsibility initiatives," *J. Bus. Ethics*, vol. 85, no. 2, pp. 257–272, 2009.
- [34] C. W. Bauman and L. J. Skitka, "Corporate social responsibility as a source of employee satisfaction," *Res. Organ. Behav.*, vol. 32, pp. 63–86, 2012. doi: <https://doi.org/10.1016/j.riob.2012.11.002>.
- [35] D. Ruiz-Palomo, A. León-Gómez, and F. García-Lopera, "Disentangling organizational commitment in hospitality industry: The roles of empowerment, enrichment, satisfaction and gender," *Int. J. Hosp. Manag.*, vol. 90, Aug. 2020, Art. no. 102637. doi: [10.1016/j.ijhm.2020.102637](https://doi.org/10.1016/j.ijhm.2020.102637).
- [36] E. A. Locke, "The nature and causes of job satisfaction," in *Handbook of Industrial and Organizational Psychology*, M.D. Dunnette, Ed., Chicago, EEUU, 1976, pp. 1297–1349.
- [37] S. Shabnam and A. R. Sarker, "Impact of CSR and internal marketing on employee job satisfaction and organisational commitment: A case study from export-oriented SMEs in Bangladesh," *World J. Soc. Sci.*, vol. 2, no. 7, pp. 24–36, 2012.
- [38] A. J. Briones Peñalver, J. A. Bernal Conesa, and C. de Nieves Nieto, "Analysis of corporate social responsibility in Spanish agribusiness and its influence on innovation and performance," *Corp. Soc. Responsibility Environ. Manag.*, vol. 25, no. 2, pp. 182–193, 2018, doi: [10.1002/csr.1448](https://doi.org/10.1002/csr.1448).
- [39] S. Choi, Y. Feng, J. Liu, and Q. Zhu, "Motivating corporate social responsibility practices under customer pressure among small-and medium-sized suppliers in China: The role of dynamic capabilities," *Corp. Soc. Responsibility Environ. Manag.*, vol. 26, no. 1, pp. 213–226, 2019.
- [40] Q. Zhu, F. Zou, and P. Zhang, "The role of innovation for performance improvement through corporate social responsibility practices among small and medium-sized suppliers in China," *Corp. Soc. Responsibility Environ. Manag.*, vol. 26, no. 2, pp. 341–350, 2019.
- [41] I. García-Sánchez and J. Martínez-Ferrero, "Chief executive officer ability, corporate social responsibility, and financial performance: The moderating role of the environment," *Bus. Strategy Environ.*, vol. 28, pp. 542–555, Dec. 2019. doi: [10.1002/bse.2263](https://doi.org/10.1002/bse.2263).
- [42] M. Loosemore and B. T. H. Lim, "Linking corporate social responsibility and organizational performance in the construction industry," *Constr. Manag. Econ.*, vol. 35, no. 3, pp. 90–105, Mar. 2017. doi: [10.1080/01446193.2016.1242762](https://doi.org/10.1080/01446193.2016.1242762).
- [43] J. M. Santos-Jaén, A. Madrid-Guijarro, and D. García-Pérez-de-Lema, "The impact of corporate social responsibility on innovation in small and medium-sized enterprise: The mediating role of debt terms and human capital," *Corp. Soc. Responsibility Environ. Manag.*, vol. 28, no. 4, pp. 1200–1215, Jul. 2021. doi: [10.1002/csr.2125](https://doi.org/10.1002/csr.2125).
- [44] K. Kumar, R. Batra, and G. Boesso, "Difference in stakeholder engagement approach of small & medium enterprises and large companies and its performance implications," *Corp. Soc. Responsibility Environ. Manag.*, vol. 28, no. 3, pp. 992–1001, 2021.
- [45] G. Eweje, "Proactive environmental and social strategies in a small- to medium-sized company: A case study of a Japanese SME," *Bus. Strategy Environ.*, vol. 29, no. 7, pp. 2927–2938, 2020. doi: <https://doi.org/10.1002/bse.2582>.
- [46] F. J. López-Arceiz, C. Del Río, and A. J. Bellostas, "Sustainability performance indicators: Definition, interaction, and influence of contextual characteristics," *Corp. Soc. Responsibility Environ. Manag.*, vol. 27, no. 6, pp. 2615–2630, 2020.
- [47] A. A. Erumban and S. B. De Jong, "Cross-country differences in ICT adoption: A consequence of culture?," *J. World Bus.*, vol. 41, no. 4, pp. 302–314, 2006.
- [48] N. S. Beltramino, D. García-Pérez-de-Lema, and L. E. Valdez-Juárez, "The structural capital, the innovation and the performance of the industrial SMEs," *J. Intellectual Capital*, vol. 21, no. 6, pp. 913–945, 2020.
- [49] S. T. Hannah, N. Sayari, F. H. ... B. Harris, and C. L. Cain, "The direct and moderating effects of endogenous corporate social responsibility on firm valuation: Theoretical and empirical evidence from the global financial crisis," *J. Manag. Stud.*, vol. 58, no. 2, pp. 421–456, Mar. 2021. doi: [10.1111/joms.12586](https://doi.org/10.1111/joms.12586).
- [50] J. Wu, X. Zhang, S. Zhuo, M. Meyer, B. Li, and H. Yan, "The imitation-innovation link, external knowledge search and China's innovation system," *J. Intellectual Capital*, vol. 21, no. 5, pp. 727–752, 2020.
- [51] S. Almatrooshi, M. Hussain, M. Ajmal, and M. Tehsin, "Role of public policies in promoting CSR: Empirical evidence from business and civil society of UAE," *Corp. Gov. Int. J. Bus. Soc.*, vol. 18, no. 6, pp. 1107–1123, 2018.
- [52] P. Vishwanathan, H. van Oosterhout, P. P. M. A. R. Heugens, P. Duran, and M. van Essen, "Strategic CSR: A concept building meta-analysis," *J. Manag. Stud.*, vol. 57, no. 2, pp. 314–350, 2020. doi: [10.1111/joms.12514](https://doi.org/10.1111/joms.12514).
- [53] G. M. Guzman, S. Y. P. Castro, and G. C. L. Torres, "Corporate social responsibility and business performance: The role of Mexican SMEs," *Int. J. Asian Soc. Sci.*, vol. 6, no. 10, pp. 568–579, 2016. doi: [10.18488/journal.1/2016.6.10/1.10.568.579](https://doi.org/10.18488/journal.1/2016.6.10/1.10.568.579).
- [54] M. Friedman, "The social responsibility of business is to increase its profits," in *Corporate Ethics and Corporate Governance*. Berlin, Germany: Springer, pp. 173–178, 2007.
- [55] P. Wright and S. P. Ferris, "Agency conflict and corporate strategy: The effect of divestment on corporate value," *Strategy Manag. J.*, vol. 18, no. 1, pp. 77–83, Jan. 1997.
- [56] A. Aguilera Castro and D. P. Puerto Becerra, "Crecimiento Empresarial Basado En La Responsabilidad Social," *Pensamiento Gestión*, vol. 32, pp. 1–26, 2012.
- [57] H. Jo and M. A. Harjoto, "Corporate governance and firm value: The impact of corporate social responsibility," *J. Bus. Ethics*, vol. 103, no. 3, pp. 351–383, Oct. 2011. doi: [10.1007/s10551-011-0869-y](https://doi.org/10.1007/s10551-011-0869-y).
- [58] E. H. Kao, C.-C. Yeh, L.-H. Wang, and H.-G. Fung, "The relationship between CSR and performance: Evidence in China," *Pacific-Basin Finance J.*, vol. 51, pp. 155–170, Oct. 2018. doi: [10.1016/j.pacfin.2018.04.006](https://doi.org/10.1016/j.pacfin.2018.04.006).
- [59] S. P. MacGregor and J. Fontrodona, "Exploring the fit between CSR and innovation," in *Proc. IESE Bus. Sch. Work. Pap.*, vol. 23, Sep. 2008, Paper 759.
- [60] P. Bansal, "The corporate challenges of sustainable development," *Acad. Manag. Perspect.*, vol. 16, no. 2, pp. 122–131, 2002.
- [61] J. B. Njaya, "L'Impacto de la responsabilité sociale (RSE) sur la performance financière des entreprises (PFE) au cameroun," *Rev. Congo. Gest.*, no. 1, pp. 89–112, 2014.
- [62] K. W. Artz, P. M. Norman, D. E. Hatfield, and L. B. Cardinal, "A longitudinal study of the impact of R&D, patents, and product innovation on firm performance," *J. Prod. Innov. Manag.*, vol. 27, no. 5, pp. 725–740, Jul. 2010. doi: [10.1111/j.1540-5885.2010.00747.x](https://doi.org/10.1111/j.1540-5885.2010.00747.x).
- [63] M. González-Fernández and C. González-Velasco, "Innovation and corporate performance in the Spanish regions," *J. Policy Model.*, vol. 40, no. 5, pp. 998–1021, Sep. 2018. doi: [10.1016/j.jpolmod.2018.05.005](https://doi.org/10.1016/j.jpolmod.2018.05.005).
- [64] P. Therrien, D. Doloreux, and T. Chamberlin, "Innovation novelty and (commercial) performance in the service sector: A Canadian firm-level analysis," *Technovation*, vol. 31, no. 12, pp. 655–665, Dec. 2011. doi: [10.1016/j.technovation.2011.07.007](https://doi.org/10.1016/j.technovation.2011.07.007).
- [65] A. Perez-Luño, S. Gopalakrishnan, and R. V. Cabrera, "Innovation and performance: The role of environmental dynamism on the success of innovation choices," *IEEE Trans. Eng. Manag.*, vol. 61, no. 3, pp. 499–510, Aug. 2014. doi: [10.1109/TEM.2014.2318085](https://doi.org/10.1109/TEM.2014.2318085).
- [66] D. Ruiz-Palomo, J. Diéguez-Soto, A. Duréndez, and J. A. C. Santos, "Family management and firm performance in family SMEs: The mediating roles of management control systems and technological innovation," *Sustainability*, vol. 11, no. 14, 2019, Art. no. 3805. doi: [10.3390/su11143805](https://doi.org/10.3390/su11143805).

- [67] D. Gallardo-Vázquez, L. E. Valdez-Juárez, and Á. M. Castuera-Díaz, "Corporate social responsibility as an antecedent of innovation, reputation, performance, and competitive success: A multiple mediation analysis," *Sustainability*, vol. 11, no. 20, Oct. 2019, Art. no. 5614. doi: [10.3390/su11205614](https://doi.org/10.3390/su11205614).
- [68] I. Hashi and N. Stojčić, "The impact of innovation activities on firm performance using a multi-stage model: Evidence from the community innovation survey 4," *Res. Policy*, vol. 42, no. 2, pp. 353–366, Mar. 2013. doi: [10.1016/j.respol.2012.09.011](https://doi.org/10.1016/j.respol.2012.09.011).
- [69] M. Atalay, N. Anafarta, and F. Sarvan, "The relationship between innovation and firm performance: An empirical evidence from Turkish automotive industry," *Procedia, Soc. Behav. Sci.*, vol. 75, pp. 226–235, Apr. 2013. doi: [10.1016/j.sbspro.2013.04.026](https://doi.org/10.1016/j.sbspro.2013.04.026).
- [70] J. A. Schumpeter, *The Theory of Economic Development*. Cambridge, MA, USA: Harvard Univ. Press, 1934.
- [71] T. B. Hadj, "Effects of corporate social responsibility towards stakeholders and environmental management on responsible innovation and competitiveness," *J. Clean. Prod.*, vol. 250, Mar. 2020, Art. no. 119490. doi: [10.1016/j.jclepro.2019.119490](https://doi.org/10.1016/j.jclepro.2019.119490).
- [72] F. Damanpour, R. M. Walker, and C. N. Avellaneda, "Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations," *J. Manag. Stud.*, vol. 46, no. 4, pp. 650–675, 2009. doi: [10.1111/j.1467-6486.2008.00814.x](https://doi.org/10.1111/j.1467-6486.2008.00814.x).
- [73] T. L. Waldron, C. Navis, E. P. Karam, and G. D. Markman, "Toward a theory of activist-driven responsible innovation: How activists pressure firms to adopt more responsible practices," *J. Manag. Stud.*, to be published, Sep. 2019. doi: [10.1111/joms.12548](https://doi.org/10.1111/joms.12548).
- [74] J. Collier and R. Esteban, "Corporate social responsibility and employee commitment," *Bus. Ethics, Eur. Rev.*, vol. 16, no. 1, pp. 19–33, 2007.
- [75] N. Berber, G. S. Susnjari, A. Slavic, and M. Baosic, "Relationship between corporate social responsibility and human resource management as new management concepts—in central and eastern Europe," *Eng. Econ.*, vol. 25, no. 3, pp. 360–369, 2014.
- [76] T. Onkila, "Pride or embarrassment? Employees' emotions and corporate social responsibility," *Corp. Soc. Responsibility Environ. Manag.*, vol. 22, no. 4, pp. 222–236, 2015.
- [77] E. Lamm, J. Tosti-Kharas, and E. G. Williams, "Read this article, but don't print it: Organizational citizenship behavior toward the environment," *Group Organ. Manag.*, vol. 38, no. 2, pp. 163–197, 2013.
- [78] C. B. Bhattacharya, S. Sen, and D. Korschun, "Using corporate social responsibility to win the war for talent," *MIT Sloan Manag. Rev.*, vol. 49, no. 2, pp. 37–44, 2008.
- [79] Z. Zhou, B. N. Luo, and T. L. Tang, "Corporate social responsibility excites 'exponential' positive employee engagement: The Matthew effect in CSR and sustainable policy," *Corp. Soc. Responsibility Environ. Manag.*, vol. 25, no. 4, pp. 339–354, 2018.
- [80] J. S. P. Story and F. Castanheira, "Corporate social responsibility and employee performance: Mediation role of job satisfaction and affective commitment," *Corp. Soc. Responsibility Environ. Manag.*, vol. 26, no. 6, pp. 1361–1370, 2019. doi: [10.1002/csr.1752](https://doi.org/10.1002/csr.1752).
- [81] L. L. Meier and P. E. Spector, "Job satisfaction," in *Wiley Encyclopedia of Management*. Hoboken, NJ, USA: Wiley, 2015, pp. 1–3.
- [82] D. Bakotić, "Relationship between job satisfaction and organizational performance," *Econ. Res.*, vol. 29, no. 1, pp. 118–130, 2016.
- [83] M. S. Latif, M. Ahmad, M. Qasim, M. Mushtaq, A. Ferdous, and H. Naeem, "Impact of employee's job satisfaction on organizational performance," *Eur. J. Bus. Manag.*, vol. 5, no. 5, pp. 166–171, 2013.
- [84] S. Abraham, "Development of employee engagement programme on the basis of employee satisfaction survey," *J. Econ. Dev. Manag. IT, Finance Market*, vol. 4, no. 1, pp. 27–37, 2012.
- [85] K. Jiang, D. P. Lepak, J. Hu, and J. C. Baer, "How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms," *Acad. Manag. J.*, vol. 55, no. 6, pp. 1264–1294, 2012.
- [86] R. R. Kehoe and P. M. Wright, "The impact of high-performance human resource practices on employees' attitudes and behaviors," *J. Manage.*, vol. 39, no. 2, pp. 366–391, 2013.
- [87] Q. Zhu, H. Yin, J. Liu, and K. Lai, "How is employee perception of organizational efforts in corporate social responsibility related to their satisfaction and loyalty towards developing harmonious society in Chinese enterprises?," *Corp. Soc. Responsibility Environ. Manag.*, vol. 21, no. 1, pp. 28–40, 2014.
- [88] J. K. Harter, F. L. Schmidt, and T. L. Hayes, "Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis," *J. Appl. Psychol.*, vol. 87, no. 2, pp. 268–279, 2002.
- [89] C. Mafini and D. R. I. Poole, "The relationship between employee satisfaction and organisational performance: Evidence from a South African government department," *SA J. Ind. Psychol.*, vol. 39, no. 1, pp. 1–9, 2013.
- [90] H. Bao, "Job satisfaction, firm performance and CSR," *SSRN Electron. J.*, vol. 4, pp. 1–25, 2020. doi: [10.2139/ssrn.3583984](https://doi.org/10.2139/ssrn.3583984).
- [91] C. M. Daily and J. P. Near, "CEO satisfaction and firm performance in family firms: Divergence between theory and practice," *Soc. Indicator Res.*, vol. 51, no. 2, pp. 125–170, 2000.
- [92] A. T. Mohr and J. F. Puck, "Role conflict, general manager job satisfaction and stress and the performance of IJVs," *Eur. Manag. J.*, vol. 25, no. 1, pp. 25–35, 2007.
- [93] S. R. Barakat, G. Isabella, J. M. G. Boaventura, and J. A. Mazzon, "The influence of corporate social responsibility on employee satisfaction," *Manag. Decis.*, vol. 54, no. 9, pp. 2325–2339, 2016.
- [94] K. K. Bhatti and T. M. Qureshi, "Impact of employee participation on job satisfaction, employee commitment and employee productivity," *Int. Rev. Bus. Res. Papers*, vol. 3, no. 2, pp. 54–68, 2007.
- [95] D. E. Rupp, R. Shao, M. A. Thornton, and D. P. Skarlicki, "Applicants' and employees' reactions to corporate social responsibility: The moderating effects of first-party justice perceptions and moral identity," *Pers. Psychol.*, vol. 66, no. 4, pp. 895–933, Dec. 2013. doi: [10.1111/peps.12030](https://doi.org/10.1111/peps.12030).
- [96] F. O. Dotun, "Barriers to innovation in small and medium scale enterprises in south western part of Nigeria," *Bus. Manag. Rev.*, vol. 5, no. 3, 2014, Art. no. 31.
- [97] F. Cinnirella and J. Streb, "The role of human capital and innovation in economic development: Evidence from post-Malthusian Prussia," *J. Econ. Growth*, vol. 2, no. 22, pp. 193–227, 2017.
- [98] M. Wagner, "Innovation and competitive advantages from the integration of strategic aspects with social and environmental management in European firms," *Bus. Strategy Environ.*, vol. 18, no. 5, pp. 291–306, Jul. 2009. doi: [10.1002/bse.585](https://doi.org/10.1002/bse.585).
- [99] J. Surroca, J. A. Tribó, and S. Waddock, "Corporate responsibility and financial performance: The role of intangible resources," *Strategy Manag. J.*, vol. 31, no. 5, pp. 463–490, 2010.
- [100] W. Wang, Y. Fu, H. Qiu, J. H. Moore, and Z. Wang, "Corporate social responsibility and employee outcomes: A moderated mediation model of organizational identification and moral identity," *Front. Psychol.*, vol. 8, pp. 1–14, Nov. 2017. doi: [10.3389/fpsyg.2017.01906](https://doi.org/10.3389/fpsyg.2017.01906).
- [101] S. Zulfiqar, R. Sadaf, J. Popp, J. Vveinhardt, and D. Máté, "An examination of corporate social responsibility and employee behavior: The case of Pakistan," *Sustainability*, vol. 11, no. 13, 2019, Art. no. 3515.
- [102] J. Lu, L. Ren, C. Zhang, C. Wang, R. R. Ahmed, and J. Streimikis, "Corporate social responsibility and employee behavior: Evidence from mediation and moderation analysis," *Corp. Soc. Responsibility Environ. Manag.*, vol. 27, no. 4, pp. 1719–1728, 2020.
- [103] H. Aguinis and A. Glavas, "What we know and don't know about corporate social responsibility: A review and research agenda," *J. Manage.*, vol. 38, no. 4, pp. 932–968, 2012.
- [104] J. Busch-Casler, S. Haubner, and A. Pinkwart, "Employee involvement in innovation activities in hospitals: How perception matters," *Heal. Serv. Manag. Res.*, vol. 34, no. 2, pp. 70–79, May 2021. doi: [10.1177/0951484820943600](https://doi.org/10.1177/0951484820943600).
- [105] Y. Bammens, G. Notelaers, and A. Van Gils, "Employees as a source of innovation: The role of perceived organizational support in family firms," *Acad. Manag. Proc.*, vol. 2013, no. 1, 2013, Art. no. 10400.
- [106] E. Bacinello, G. Tontini, and A. Alberton, "Influence of corporate social responsibility on sustainable practices of small and medium-sized enterprises: Implications on business performance," *Corp. Soc. Responsibility Environ. Manag.*, vol. 28, pp. 776–785, 2020.
- [107] R. J. Fisher, "Social desirability bias and the validity of indirect questioning," *J. Consum. Res.*, vol. 20, no. 2, pp. 303–315, 1993.
- [108] N. Kock, "One-tailed or two-tailed p values in PLS-SEM?," *Int. J. e-Collaboration*, vol. 11, no. 2, pp. 1–7, 2015. doi: [10.4018/ijec.2015040101](https://doi.org/10.4018/ijec.2015040101).
- [109] J. F. Hair, C. M. Ringle, S. P. Gudergan, A. Fischer, C. Nitzl, and C. Menictas, "Partial least squares structural equation modeling-based discrete choice modeling: An illustration in modeling retailer choice," *Bus. Res.*, vol. 12, no. 1, pp. 115–142, 2019. doi: [10.1007/s40685-018-0072-4](https://doi.org/10.1007/s40685-018-0072-4).

- [110] P. M. Podsakoff, S. B. MacKenzie, J.-Y. Lee, and N. P. Podsakoff, "Common method biases in behavioral research: A critical review of the literature and recommended remedies," *J. Appl. Psychol.*, vol. 88, no. 5, pp. 879–903, 2003.
- [111] J. F. Hair, W. C. Black, B. J. Babin, R. E. Anderson, and R. L. Tatham, *Multivariate Data Analysis*, vol. 5, no. 3. Upper Saddle River, NJ, USA: Prentice Hall, 1998.
- [112] F. Faul, A. Buchner, E. Erdfelder, and S. Mayr, "A short tutorial of GPower," *Tut. Quant. Methods Psychol.*, vol. 3, no. 2, pp. 51–59, 2007.
- [113] J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Erlbaum Press, Hillsdale, NJ, USA, 1988.
- [114] A. Van Gils, "Management and governance in Dutch SMEs," *Eur. Manag. J.*, vol. 23, no. 5, pp. 583–589, 2005.
- [115] J. Galbreath and P. Shum, "Do customer satisfaction and reputation mediate the CSR–FP link? Evidence from Australia," *Aust. J. Manag.*, vol. 37, no. 2, pp. 211–229, 2012.
- [116] L. Liman, J. Tarigan, and F. Jie, "Corporate social responsibility, financial performance, and risk in Indonesian natural resources industry," Petra Christian Univ., Surabaya, Indonesia, 2019.
- [117] N. Caro and I. Salazar, "La responsabilidad social y la competitividad de las MYPES de tingo maría," *Balanc. s.*, vol. 6, no. 8, pp. 4–12, 2019.
- [118] M. H. Lee, A. K. Mak, and A. Pang, "Bridging the gap: An exploratory study of corporate social responsibility among SMEs in Singapore," *J. Public Relations Res.*, vol. 24, no. 4, pp. 299–317, 2012.
- [119] O. S. Agyemang and A. Ansong, "Corporate social responsibility and firm performance of Ghanaian SMEs," *J. Global Responsibility*, vol. 8, no. 1, 2017, Art. no. 1333704.
- [120] J. L. Esparza Aguilar and T. R. Fong, "Practices of corporate social responsibility developed by Mexican family businesses and their impact on competitive success and innovation," *Tec Empres.*, vol. 13, no. 2, pp. 45–57, 2019.
- [121] M. Ikram, R. Sroufe, M. Mohsin, Y. A. Solangi, S. Z. A. Shah, and F. Shahzad, "Does CSR influence firm performance? A longitudinal study of SME sectors of Pakistan," *J. Glob. Responsibility*, vol. 11, pp. 27–53, 2019.
- [122] N. Sinha, T. Sachdeva, and M. P. Yadav, "Investigating relationship between corporate social responsibility and financial performance using structural equation modelling," *Manag. Labour Stud.*, vol. 43, no. 3, pp. 175–191, 2018.
- [123] J. Sorribes, D. Celma, and E. Martínez-García, "Sustainable human resources management in crisis contexts: Interaction of socially responsible labour practices for the wellbeing of employees," *Corp. Soc. Responsibility Environ. Manag.*, vol. 28, no. 2, pp. 936–952, 2021.
- [124] S.-M. Jang and K.-I. Kim, "The effects of the environmental factors for ICT adoption on globalization capabilities and business performance of SMEs," *J. Converg. Inf. Technol.*, vol. 8, no. 4, pp. 219–224, 2018.
- [125] A. Madrid-Guijarro, D. García, and H. Van Aukén, "Barriers to innovation among Spanish manufacturing SMEs," *J. Small Bus. Manag.*, vol. 47, no. 4, pp. 465–488, 2009.
- [126] H. Y. Ali, R. Q. Danish, and M. Asrar-ul-Haq, "How corporate social responsibility boosts firm financial performance: The mediating role of corporate image and customer satisfaction," *Corp. Soc. Responsibility Environ. Manag.*, vol. 27, no. 1, pp. 166–177, 2020.
- [127] R. S. Kaplan and D. P. Norton, "The balanced scorecard: Measures that drive performance," *Harv. Bus. Rev.*, vol. 83, no. 7, pp. 71–79, 2005.
- [128] W. W. Chin and J. Dibbern, *Handbook of Partial Least Squares*. Berlin, Germany: Springer, 2010, pp. 171–193. doi: [10.1007/978-3-540-32827-8](https://doi.org/10.1007/978-3-540-32827-8).
- [129] G. Cepeda-Carrion, J. G. Cegarra-Navarro, and V. Cillo, "Tips to use partial least squares structural equation modelling (PLS-SEM) in knowledge management," *J. Knowl. Manag.*, vol. 23, no. 1, pp. 67–89, 2019. doi: [10.1108/JKM-05-2018-0322](https://doi.org/10.1108/JKM-05-2018-0322).
- [130] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," *Eur. Bus. Rev.*, vol. 31, no. 1, pp. 2–24, 2019. doi: [10.1108/EBR-11-2018-0203](https://doi.org/10.1108/EBR-11-2018-0203).
- [131] E. E. Rigdon, "Choosing PLS path modeling as analytical method in European management research: A realist perspective," *Eur. Manag. J.*, vol. 34, no. 6, pp. 598–605, 2016. doi: [10.1016/j.emj.2016.05.006](https://doi.org/10.1016/j.emj.2016.05.006).
- [132] C. Cassel, P. Hackl, and A. H. Westlund, "Robustness of partial least-squares method for estimating latent variable quality structures," *J. Appl. Statist.*, vol. 26, no. 4, pp. 435–446, 1999. doi: [10.1080/026647699232322](https://doi.org/10.1080/026647699232322).
- [133] I. Castro and J. L. Roldán, "A mediation model between dimensions of social capital," *Int. Bus. Rev.*, vol. 22, no. 6, pp. 1034–1050, 2013. doi: [10.1016/j.ibusrev.2013.02.004](https://doi.org/10.1016/j.ibusrev.2013.02.004).
- [134] M. Sarstedt, C. M. Ringle, J. H. Cheah, H. Ting, O. I. Moisesescu, and L. Radomir, "Structural model robustness checks in PLS-SEM," *Tourism Econ.*, vol. 26, no. 4, pp. 531–554, 2020. doi: [10.1177/1354816618823921](https://doi.org/10.1177/1354816618823921).
- [135] C. M. Ringle, S. Wende, and J.-M. Becker, "SmartPLS 3," Boenningstedt, Germany: SmartPLS GmbH, 2015.
- [136] C. Fornell and F. L. Bookstein, "Two structural equation models: LISREL and PLS applied to consumer exit-voice theory," *J. Market Res.*, vol. 19, no. 4, pp. 440–452, 1982. doi: [10.1177/002224378201900406](https://doi.org/10.1177/002224378201900406).
- [137] C. M. Voorhees, M. K. Brady, R. Calantone, and E. Ramirez, "Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies," *J. Acad. Market Sci.*, vol. 44, no. 1, pp. 119–134, 2016. doi: [10.1007/s11747-015-0455-4](https://doi.org/10.1007/s11747-015-0455-4).
- [138] D. Barclay, C. Higgins, and R. Thompson, "The partial least squares (PLS) approach to casual modeling: personal computer adoption and use as an illustration, 1995.
- [139] M. Tenenhaus, V. E. Vinzi, Y. M. Chatelin, and C. Lauro, "PLS path modeling," *Comput. Statist. Data Anal.*, vol. 48, no. 1, pp. 159–205, 2005. doi: [10.1016/j.csda.2004.03.005](https://doi.org/10.1016/j.csda.2004.03.005).
- [140] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *J. Acad. Market Sci.*, vol. 43, no. 1, pp. 115–135, 2014. doi: [10.1007/s11747-014-0403-8](https://doi.org/10.1007/s11747-014-0403-8).
- [141] J. Henseler, C. M. Ringle, and M. Sarstedt, "Testing measurement invariance of composites using partial least squares," *Int. Market Rev.*, vol. 33, no. 3, pp. 405–431, 2016. doi: [10.1108/IMR-09-2014-0304](https://doi.org/10.1108/IMR-09-2014-0304).
- [142] L.-T. Hu and P. M. Bentler, "Fit indices sensitivity to misspecification," *Psychol. Methods*, vol. 3, no. 1, pp. 424–453, 1998.
- [143] J. Henseler *et al.*, "Common beliefs and reality about PLS: Comments on rönkkö and evermann (2013)," *Organ. Res. Methods*, vol. 17, no. 2, pp. 182–209, 2014. doi: [10.1177/1094428114526928](https://doi.org/10.1177/1094428114526928).
- [144] N. Kock, "Common method bias in PLS-SEM: A full collinearity assessment approach," *Int. J. e-Collaboration*, vol. 11, no. 4, pp. 1–10, 2015. doi: [10.4018/ijec.2015100101](https://doi.org/10.4018/ijec.2015100101).
- [145] J. F. Hair, M. Sarstedt, C. M. Ringle, and S. P. Gudergan, *Advanced Issues in Partial Least Squares Structural Equation Modeling*. Los Angeles, CA, USA: Sage Publication, 2017.
- [146] M. Ghasemy, V. Teeroovengadam, J. M. Becker, and C. M. Ringle, "This fast car can move faster: A review of PLS-SEM application in higher education research," *High. Educ.*, vol. 80, pp. 1121–1152, 2020. doi: [10.1007/s10734-020-00534-1](https://doi.org/10.1007/s10734-020-00534-1).
- [147] J. Creixans-Tenas, G. Coenders, and N. Arimany-Serrat, "Corporate social responsibility and financial profile of spanish private hospitals," *Heliyon*, vol. 5, no. 10, 2019, Art. no. e02623. doi: [10.1016/j.heliyon.2019.e02623](https://doi.org/10.1016/j.heliyon.2019.e02623).
- [148] W. W. Chin, "How to write up and report PLS analyses," in *Handbook of Partial Least Squares*. Berlin, Germany: Springer, 2010, pp. 655–690.
- [149] E. Martínez-Caro, G. Cepeda-Carrion, J. G. Cegarra-Navarro, and A. García-Perez, "The effect of information technology assimilation on firm performance in B2B scenarios," *Ind. Manag. Data Syst.*, vol. 120, pp. 2269–2296, 2020. doi: [10.1108/IMDS-10-2019-0554](https://doi.org/10.1108/IMDS-10-2019-0554).
- [150] D. Straub and D. Gefen, "Validation guidelines for IS positivist research," *Commun. Inf. Syst.*, vol. 13, pp. 380–427, 2004. doi: [10.17705/1cais.01324](https://doi.org/10.17705/1cais.01324).
- [151] J. Evermann and M. Tate, "Assessing the predictive performance of structural equation model estimators," *J. Bus. Res.*, vol. 69, no. 10, pp. 4565–4582, 2016. doi: [10.1016/j.jbusres.2016.03.050](https://doi.org/10.1016/j.jbusres.2016.03.050).
- [152] G. Shmueli *et al.*, "Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict," *Eur. J. Mark.*, vol. 53, no. 11, pp. 2322–2347, 2019. doi: [10.1108/EJM-02-2019-0189](https://doi.org/10.1108/EJM-02-2019-0189).
- [153] A. Calvo-Mora, A. Blanco-Oliver, J. L. Roldán, and R. Perriñez-Cristóbal, "TQM factors and organisational results in the EFQM excellence model framework: An explanatory and predictive analysis," *Ind. Manag. Data Syst.*, vol. 120, pp. 2011–2034, 2020. doi: [10.1108/IMDS-12-2019-0701](https://doi.org/10.1108/IMDS-12-2019-0701).
- [154] C. M. Felipe, J. L. Roldán, and A. L. Leal-Rodríguez, "Impact of organizational culture values on organizational agility," *Sustain.*, vol. 9, no. 12, 2017, Art. no. 2354. doi: [10.3390/su9122354](https://doi.org/10.3390/su9122354).
- [155] P. Dolce, V. E. Vinzi, and C. Lauro, "Predictive path modeling through PLS and other component-based approaches: Methodological issues and performance evaluation," in *Partial Least Squares Path Modeling*. Berlin, Germany: Springer, 2017, pp. 153–172.
- [156] J. Herrera Madueño, M. L. Jorge, and D. Martínez-Martínez, "Relación entre responsabilidad social y performance en las pequeñas y medianas empresas: Revisión bibliográfica," *Cuad. Gestión*, vol. 13, no. 2, pp. 39–65, 2013. doi: [10.5295/cdg.120360jh](https://doi.org/10.5295/cdg.120360jh).

- [157] K. Tamm, R. Eamets, and P. Mõtsmees, "Relationship between corporate social responsibility and job satisfaction: The case of baltic countries," in *Working Paper Series 76, Univ. Tartu - Faculty Econ. Bus. Admin.*, pp. 76–132, 2010.
- [158] L. E. Valdez-Juárez, D. García-Pérez-de-Lema, and G. Maldonado-Guzmán, "ICT and KM, drivers of innovation and profitability in SMEs," *J. Inf. Knowl. Manag.*, vol. 17, no. 1, 2018, Art. no. 1850007.
- [159] L. Alrubaiee, H. M. Alzubi, R. Hanandeh, and R. Al Ali, "Investigating the relationship between knowledge management processes and organizational performance the mediating effect of organizational innovation," *Int. Rev. Manag. Bus. Res.*, vol. 4, no. 4, pp. 989–1009, 2015.
- [160] E. Byukusenge, J. Munene, and L. Orobia, "Knowledge management and business performance: Mediating effect of innovation," *J. Bus. Manag. Sci.*, vol. 4, no. 4, pp. 82–92, 2016.
- [161] L. E. Valdez-Juárez, D. García-Pérez de Lema, and G. Maldonado-Guzmán, "Management of knowledge, innovation and performance in SMEs," *Interdiscip. J. Inf., Knowl., Manag.*, vol. 11, no. 4, pp. 141–176, 2016.
- [162] K. Mendibil, J. Hernandez, X. Espinach, E. Garriga, and S. Macgregor, "How can CSR practices lead to successful innovation in SMEs," *Publication from RESPONSE Project*, pp. 1–7, 2007.
- [163] P. Ruggiero and S. Cupertino, "CSR strategic approach, financial resources and corporate social performance: The mediating effect of innovation," *Sustainability*, vol. 10, no. 10, Oct. 2018, Art. no. 3611. doi: [10.3390/su10103611](https://doi.org/10.3390/su10103611).
- [164] B. Yáñez-Araque, J. P. Sánchez-Infante Hernández, S. Gutiérrez-Broncano, and P. Jiménez-Estévez, "Corporate social responsibility in micro-, small- and medium-sized enterprises: Multigroup analysis of family vs. nonfamily firms," *J. Bus. Res.*, vol. 124, pp. 581–592, Oct. 2020. doi: [10.1016/j.jbusres.2020.10.023](https://doi.org/10.1016/j.jbusres.2020.10.023).
- [165] A. J. Bock, T. Opsahl, G. George, and D. M. Gann, "The effects of culture and structure on strategic flexibility during business model innovation," *J. Manag. Stud.*, vol. 49, no. 2, pp. 279–305, 2012. doi: [10.1111/j.1467-6486.2011.01030.x](https://doi.org/10.1111/j.1467-6486.2011.01030.x).
- [166] M. ángel Fernández-Gámez, A. M. Gutiérrez-Ruiz, R. Becerra-Vicario, and D. Ruiz-Palomo, "The effects of creating shared value on the hotel performance," *Sustainability*, vol. 11, no. 6, 2019, Art. no. 1784. doi: [10.3390/su11061784](https://doi.org/10.3390/su11061784).
- [167] D. Gallardo-Vázquez, M. J. Barroso-Méndez, M. L. Pajuelo-Moreno, and J. Sánchez-Meca, "Corporate social responsibility disclosure and performance: A meta-analytic approach," *Sustainability*, vol. 11, no. 4, 2019, Art. no. 1115.
- [168] J. Lu, L. Ren, W. Lin, Y. He, and J. Streimikis, "Policies to promote corporate social responsibility (CSR) and assessment of CSR impacts," *Bus. Adm. Manag.*, vol. 22, no. 1, pp. 82–98, 2019.
- [169] G. García-Piqueres and R. García-Ramos, "Is the corporate social responsibility–innovation link homogeneous?: Looking for sustainable innovation in the spanish context," *Corp. Soc. Responsibility Environ. Manag.*, vol. 27, no. 2, pp. 803–814, 2020.
- [170] Y. Zheng, Y. Wang, and C. Jiang, "Corporate social responsibility and likelihood of financial distress," *Quart. Rev. Bus. Disciplines*, vol. 6, no. 3, pp. 219–236, 2019.
- [171] M. Battaglia, F. Testa, L. Bianchi, F. Iraldo, and M. Frey, "Corporate social responsibility and competitiveness within SMEs of the fashion industry: Evidence from Italy and France," *Sustainability*, vol. 6, no. 2, pp. 872–893, Feb. 2014. doi: [10.3390/su6020872](https://doi.org/10.3390/su6020872).



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