

Barriers to Corporate Sustainability in the U.S.

Pavlina McGrady¹ & Susan Golicic²

¹ School of Business, Southern Oregon University, USA

² Department of Management, Colorado State University, USA

Correspondence: Pavlina McGrady, School of Business, Southern Oregon University, Ashland, OR, USA.

Received: August 1, 2023

Accepted: September 30, 2023

Online Published: October 16, 2023

doi:10.5539/jms.v13n2p112

URL: <https://doi.org/10.5539/jms.v13n2p112>

Abstract

Sustainability is critical to the future success of businesses; those that do not implement sustainability initiatives may lose customers, investors, and/or profits. This study examines barriers to corporate sustainability, measured through the four dimensions of the Prism of Sustainability (environmental, social, economic, and institutional), a framework of sustainability not commonly used in business research. An online survey of sustainability managers from a variety of industries in the United States distributed in the spring of 2021 yielded a total of 361 responses. Results reveal that lack of leadership and lack of governance were the most predominant barriers to corporate sustainability. Surprisingly, the most frequently cited barrier in the literature—resources—was not identified as a significant barrier for U.S. companies. The impact of the pandemic was also qualitatively explored to see if such constraints might have a nuanced effect on corporate sustainability efforts. This research expands the contexts in which the Prism of Sustainability is applied in business studies, highlighting it as a means to assess corporate sustainability. Results provide important managerial implications, highlighting the importance of measures to govern the organization's sustainability effort and the critical role leadership plays. Sustainable management is a necessity for business, and therefore, addressing barriers to achieving it will be imperative for companies' futures.

Keywords: corporate sustainability, prism of sustainability, barriers, pandemic

1. Introduction

1.1 The Problem

Current models of business operations are considered ineffective due to an increasing array of environmental, social, economic, and institutional challenges. Sustainability is critical to the future success of businesses, and a paradigm shift is no longer optional but required. We are in “the age of responsibility,” and stakeholders are demanding boards and CEOs improve their firms' environmental, social, and governance (ESG) performance (Noreheim-Hansen, 2023; Sheehan et al., 2023). Many argue that businesses are uniquely positioned to lead the way to a transformative societal change toward sustainability and even regeneration, leveraging their influence and reach. Rasche et al. (2017) define corporate sustainability (CS) as “the integration of an enterprise's social, environmental, ethical and philanthropic responsibilities toward society into its operations, processes and core business strategy in cooperation with relevant stakeholders” (p. 6). Furthermore, Mitnick et al. (2022, p. 192) state that CS is about “the moral purpose of business and its proper relationship to society.” CS goes beyond seeking to minimize negative impacts to understanding how a business can create a significant positive effect for environmental protection, social justice and equity, and economic growth and translating this into business strategy. Businesses that do not implement CS will likely be left behind; Dr. Conrath-Hargeaves argues that sustainability represents the “fifth revolution,” and companies that fail to embrace it may face dire consequences (Monash School of Business, 2023).

While the COVID-19 pandemic certainly brought a new set of challenges for many businesses around the world, it also presented an opportunity to rethink, re-strategize, and potentially change policies and operations toward a more sustainable model. Hatami and Segel (2021) point out that two primary goals for CEOs in the “next normal” should be centering strategies on sustainability and operating with purpose. Nevertheless, for most companies, this journey towards CS is filled with obstacles, including rising costs, lack of resources, supplier challenges, lack of expertise and clear metrics, pressures from consumers and employees, and leadership commitment, among others (e.g., Dasayanaka et al., 2022; Mangla et al., 2019; Yuen & Lim, 2016). Although barriers to CS

have been studied, there is no clear consensus on which of them are the most significant, and they often vary based on a company's size, financial structure, or sector and can change over time (McGrady, Golicic, & Cottrell, 2022). Furthermore, external factors beyond the control of an organization, such as a pandemic, might provide additional barriers (Su et al., 2022). It is necessary to clarify these barriers for CS so that firms can create a strategy for overcoming them.

1.2 Importance of the Problem

The purpose of this study is to clarify the key barriers to CS, measured through the four dimensions of the Prism of Sustainability (Spangenberg, 2002), and it will contribute to business in three ways. First, it provides a broad empirical overview of how sustainability leaders perceive barriers to sustainability. Second, the Prism of Sustainability framework is applied, providing a holistic and parsimonious conceptualization of business sustainability as opposed to other business literature that relies on two or more theories to support sustainability efforts (McGrady, Golicic, & Cottrell, 2022). Lastly, this research highlights implications for corporate leaders and offers recommendations to address these barriers. To explain the barriers, we first discuss CS and its potential barriers, offering three research hypotheses. We then test these through an online survey. Finally, we provide implications from the results and propose strategies for businesses to overcome the potential barriers they may face.

1.3 Relevant Scholarship

Companies and their supply chains are increasingly held accountable by stakeholders for the economic, environmental, and social performance of their operations (Geissdoerfer et al., 2017). Interestingly, pressures for CS come not only from customers, employees, governments, communities, and shareholders but also from peer companies, ratings and rankings, and even social investors (Mefford, 2019). A survey that analyzed the opinions of more than 1000 global executives revealed that 99% of them considered sustainability issues critical to the future success of their businesses. Moreover, 94% of the executives believed they should link their company's purpose to their role within society (Sanchez Planelles et al., 2021). Despite these encouraging results, the study revealed that only 21% of global executives believed their companies were contributing to the United Nations Sustainable Development Goals in a significant way, implying that barriers to CS still exist.

In the United States, while 75% of Americans believe corporate sustainability is extremely important, the U.S. is lagging behind other countries (Ninia, 2019). The Sustainable Development Solutions Network (2023) reports that the U.S. (together with Brazil and The Russian Federation) rated the lowest out of the G20 countries in terms of support for the Sustainable Development Goals. On the other hand, a 2021 study by Honeywell revealed that 80% of companies in the U.S. had sustainability initiatives in place (Honeywell, n.d.). While many U.S. company leaders have expanded efforts towards sustainability in recent years, executives reported that the inability to generate sufficient demand for sustainability products was still a major challenge (despite the fact that 78% of U.S. consumers stated that a sustainable lifestyle is important to them) (Bar Am et al., 2023).

Nevertheless, numerous studies (e.g., Henisz et al., 2019; Singh Mann & Kaur, 2019; Pham et al., 2021; Raza et al., 2021; Sanchez Planelles et al., 2021) show that CS creates value for companies and supply chains. Busch and Schnippering (2021) show that the relationship between CS and financial performance is positive in over 800 studies on the impact of ESG. In the US, sustainable products growth was higher than products that were not sustainable (28% vs. 20% cumulative growth) in 2022 (Bar Am et al., 2023). Similarly, in a study of Chinese firms, Yang et al. (2019) found that sustainability reporting (through the Global Reporting Initiative) significantly increased firms' profitability. CS can result in value creation through top-line growth, cost reductions, greater strategic freedom and government support, productivity increases, investment and asset optimization, an opportunity for internal innovation, improving environmental and supply risk, attracting and retaining employees, expanding audience reach, and brand loyalty, reducing production costs, garnering positive publicity, strengthening the company's competitive advantage, and influencing new industry trends (Cote, 2021; Henisz et al., 2019). It is argued that companies that implement sustainable practices are more likely to differentiate themselves and report more benefits (Ioannis & Serafeim, 2019). Moreover, investors increasingly evaluate the degree of adoption of sustainable policies among the organizations in which they are looking to invest (Sanchez Planelles et al., 2021). Hence, there is a general agreement in the literature that although CS is not easy to achieve, it brings in a variety of positive impacts for companies. Company and leader innovation has been found to be critical elements in the journey toward sustainability (e.g., McGrady & Cottrell, 2018; McGrady, Golicic, & Cottrell, 2022).

A multitude of frameworks for sustainability has been developed through the years. This study utilizes the Prism of Sustainability (PoS) as a lens to assess barriers to CS. This construct incorporates four dimensions of

sustainability, which is a more comprehensive and parsimonious means than other manifestations of sustainability, and is specifically appropriate for studying CS (McGrady & Cottrell, 2018; McGrady, Golicic, & Cottrell, 2022). From the socio-cultural aspect, the company's approach towards diversity and inclusion and employee wellbeing and development opportunities were considered. The economic dimension addresses the role companies play in the local economy, focusing on providing jobs for local people and supporting local organizations and activities. Environmentally, the focus is placed on minimizing waste, supporting alternative energy, obtaining environmental certifications, and maintaining the local environment. The institutional imperative concerns companies' policies on CS with opportunities for involvement in decision-making and cooperation with local businesses and residents.

1.4 Hypotheses

Based on a review of literature on CS from 2000 to 2020, Dasanayaka et al. (2021) found that internal organizational barriers were the most cited by studies. The most significant one reported was the lack of resource availability, followed by a lack of employee engagement linked to low levels of knowledge, cultural issues, limited availability of technology, the size of the business, low levels of strategic orientation, and insufficient benefits. Khan et al. (2021) also highlighted lack of funds, lack of information, and lack of skilled personnel as the top barriers to CS. In a review of 28 journal articles from 2010 to 2021, Alizadeh (2022) noted that CS requires the capacity to devote time, knowledge, and facilities while no immediate financial returns can be expected. Hence, "insufficient cost/benefit ratio" and "external control" were the two most critical barriers identified, particularly for small and medium-sized enterprises.

Companies need resources to implement any activity tied to their operations. Nevertheless, businesses often have an inadequate budget for CS initiatives, and they choose to focus more on other projects that yield a high return on investment (Faisal, 2010). Other studies agree that companies do not receive sufficient financial support for CS implementation (Laudal, 2011). Therefore, financial constraint is considered a common hindrance to CS adoption, and in many cases, this was further exacerbated by the COVID-19 pandemic (Kumar et al., 2020).

Businesses also rely on people—employees as well as supply chain partners—as resources. Insufficient human resources are a critical barrier to sustainability implementation in businesses (Graafland & Zhang, 2014). Employee knowledge and understanding of CS have been highlighted as barriers (Latapi et al., 2021; Moktadir et al., 2018; Murillo-Luna et al., 2011; Trianni et al., 2017). Stakeholder relationships are a critical aspect of CS (Sumanasiri, 2020). Companies struggle to implement initiatives without the support of their supply chain partners; indeed, a company's efforts can only be as successful as the weakest link in its chain (Gurzawska, 2020). Thus, their relationships with suppliers and customers are important to be truly sustainable. Literature has noted that these relationships can be an enabler or barrier depending on whether or not the firms in the supply chain work together or not (Ellram & Golicic, 2015; Mangla et al., 2019). Mefford (2019) highlights viewing CS efforts as a win-win in obtaining cooperation for sustainability among suppliers. Based on this, we hypothesize:

H1a: A lack of financial resources negatively impacts CS.

H1b: A lack of employee resources negatively impacts CS.

H1c: A lack of supply chain relationship resources negatively impacts CS.

Governance policies are essential to promote greater awareness about CS and ensure that companies incorporate environmental and social aspects in their activities. At an organizational level, Latapi et al. (2021) point out that the company's structure and internal organizational systems, such as corporate culture and values, as well as reward systems, flexibility, adaptability, and strategic capacity, can be barriers to CS. Mefford (2019) corroborates that implementing sustainability programs into the corporate culture and strategy is one of the major challenges for CS. Hunoldt et al. (2018) also highlight that an organization's characteristics influence the intensity of CS strategies, and ultimately the application of such strategies affects organizational behavior over time. Considering that CS is largely a voluntary practice, policy incentives and/or measures are needed to boost CS implementation. A lack of clear metrics for CS is, therefore, also a common barrier in the business world (Yuen & Lim, 2016). Thus, we hypothesize:

H2: A lack of governance in the form of policy metrics negatively impacts CS.

Leadership is the way management establishes the organization's vision, goals, and processes (Plachy et al., 2022). Company leadership is key to implementing any initiatives, particularly CS (McGrady, Golicic, & Cottrell, 2022). In one study, Klein et al. (2022) found that the implementation of circular economy models was not embraced because it was not identified as a priority by the leadership in the organizations. Pinto and Allui (2020) found a lack of management commitment as a substantial barrier to CS. Wongsnuopparat and Chunyang

(2021), in a study including China, Thailand, Vietnam, Singapore, India, and Iran, also found leadership and management to have a significant impact CS, corroborating findings by Ling, Cheng and Yi (2023). Therefore, it is important for innovative business leaders to be at the forefront of sustainability initiatives implementation, as this will likely result in the greatest impact on sustainability in their companies and supply chain (McGrady, Golicic, & Cottrell, 2022). Finally, we also hypothesize:

H3: A lack of leadership negatively impacts CS.

The COVID-19 pandemic brought unprecedented disruptions to economies and organizations around the world. Business closures, employee layoffs, supply chain disruptions, concerns about employee health, reductions in demand, and financial fragility were some of the common negative impacts firms experienced (e.g., Bartik et al., 2020; Su et al., 2022). From a social perspective, the changes in work styles (e.g., telecommuting) during the pandemic affected the mental health of employees, causing anxiety, depression, and job insecurity, among others (Chong et al., 2020; Venkatesh et al., 2021). Furthermore, working from home expanded work and family conflicts and, in many cases, reduced communication and work efficiency, affecting corporate performance (Su et al., 2022). Some other strategies companies adopted to cope with COVID-19 included switching to online recruitment, expanding supply chains, advancing online distribution channels, and resuming business but with great caution (Zhang et al., 2022)

Although the COVID-19 pandemic has brought an enormous shock to organizational sustainability, it is important to note that, in many cases, it also offered businesses a great opportunity to advance CS (He & Harris, 2020). Su et al. (2022) summarized that the best strategy to attain resilience was to transition to e-commerce, online promotion, online sales, and logistics. Furthermore, Pan and Zhang (2022) point out that donating financial aid, investing in corporate sustainability, adhering to consumer ethics, and engaging in innovative thinking were the key management, institutional, and governance factors leading to more sustainable business practices following the pandemic. While the pandemic impacted CS efforts, the literature on this is still too young to definitively develop a hypothesis on the direct relationship between the two; however, we explored this to enable future studies on the impact of major business disruptions. The variables studied and their relationships are summarized in the proposed model in Figure 1.

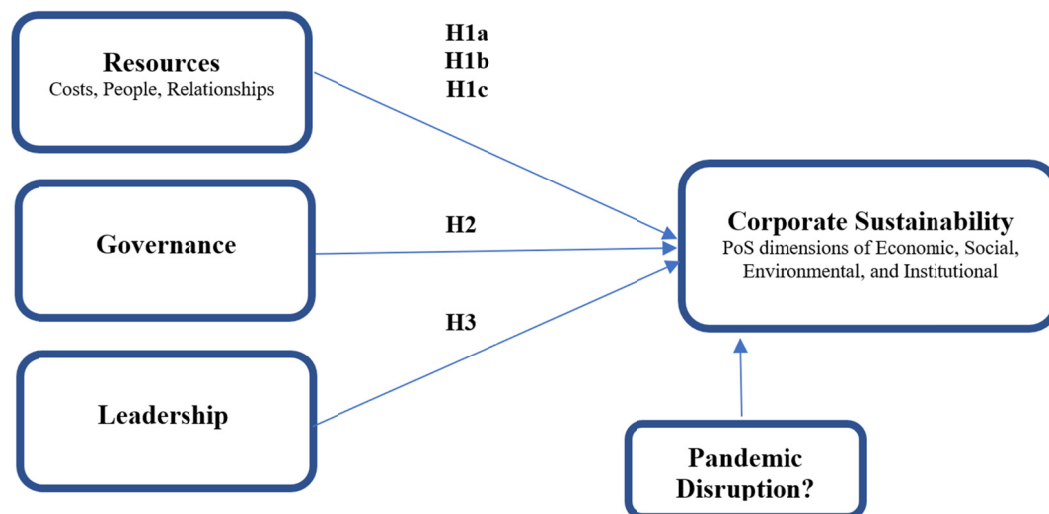


Figure 1. Hypothesized model

2. Method

2.1 Research Design

A quantitative explanatory survey was most appropriate to test the study hypotheses regarding barriers to the implementation of CS. The survey design followed Dillman's total design methodology (2007) and utilized a survey distribution service to obtain a suitable number of completed responses for the study variables (Hair et al., 2016).

2.2 Research Sample Characteristics

Sustainability managers at various levels from U.S. companies were targeted for the survey. Data records in which respondents indicated a lack of familiarity with company sustainability practices were excluded to mitigate the potential false reporting bias. Item responses received in later survey waves were tested against responses received in earlier ones with no significant differences, alleviating concerns for nonresponse bias (Armstrong & Overton, 1977). Respondents held management positions from supervisors to executive levels. They represented both private and public companies from various industries and sizes (measured by revenue and number of employees). Table 1 provides the final sample demographic information on the participants and their companies.

Table 1. Sample demographic information

Management Position				
Supervisor 28%	Manager 28.5%	Director 18.3%	Executive 25.2%	
Company Financial Structure				
Private 55.1%	Public 44.6%			
Company Size (# of employees)				
<100 18.8%	101–500 20.2%	501–1000 26.6%	1001–5000 23.3%	>5000 11.1%
Company Revenue (\$M)				
<1 7.8%	1–100 47.9%	101–500 19.1%	501–1000 13%	>1000 11.9%
Industry				
Tech 31.3%	Services 25.5%	Industrial 10.8%	CPG 13.6%	Other 18.8%

2.3 Survey Measures and Data Collection

Survey items were adapted from the literature on the sustainability barriers of resources, governance, and leadership (Arevalo & Aravind, 2011; Laudal, 2011; Mangla et al., 2019; Yuen & Lim, 2016) and empirical studies using the Prism of Sustainability (Huayahuaca et al., 2010; McGrady & Cottrell, 2018; McGrady, Golicic, & Cottrell, 2022). The original survey included sixty-one total items for ten variables utilizing a 7-point agreement scale. Two open-ended questions on changes due to the pandemic and whether these would be permanent were also included to explore if the constraints of the pandemic hindered sustainability.

An online survey was distributed between September and October 2020 using Qualtrics. During the four weeks the survey link was live, 435 responses were collected. Manual data cleansing found numerous issues with the data records, ranging from completion in less than three minutes to repeated answers to nonsensical entries in the open-ended questions, which reduced the responses to 254. Due to the issues with the data and the lack of concern from the survey distribution company, these data were used as a survey pretest, and more data using a different provider were later collected. The exploratory factor analysis conducted in SPSS found statistical issues with some of the items. Items that cross-loaded on other variables were removed; the remaining variables and items were sufficient to theoretically represent the constructs.

Alchemer was hired to conduct the final online survey, and data were collected in April and May of 2021. Four waves and manual cleansing for bogus responses were again needed to obtain 361 completed responses. Additional controls were used in data collection and cleansing with Alchemer; therefore, more reliable data was received. Factor analysis found two items that continued to cross-load, and these were removed for the final model analysis. Because one respondent was used for each completed survey, common method bias could be a concern. There were variations in the phrasing of a few of the items to help alleviate this in the design. Harman's one-factor analysis on all data *ex post* was used. An unrotated principal components factor analysis identified eight factors explaining 63% of the total variance. The first factor accounted for 33% of the variance. Because no single factor accounted for more than 50% of the variance in the data, common method bias was not a threat to the validity of the findings (Podsakoff et al., 2003). Additionally, a multicollinearity check on the data revealed that all VIF values were smaller than 3.3, adding to the support that no methodological bias existed (Hair et al., 2019).

3. Results

3.1 Statistics and Factor Analysis

Factor loadings of all retained items, along with reliability results and average variance extracted support construct validity for the sustainability barriers and PoS items (Tables 2 and 3; Hair et al., 2019). A comparison

of the shared variance among indicators of a construct (i.e., AVE) with the variance shared between constructs provided evidence for discriminant validity (Fornell & Larcker, 1981). The square root of AVE for each construct was greater than the correlation with other constructs (Table 4) with one exception: governance policies did not discriminate from governance measures or leadership. It was determined that the variable was somewhat redundant and could be removed. Overall, assessments of reliability and validity provided evidence that measurement was sufficiently robust to support valid testing of the hypotheses in the SEM model.

Table 2. CS dimension construct validity results

Scale/Item	Fact 1	Fact 2	Fact 3	Fact 4	Cronbach Alpha	Composite Reliability
<i>Economic Sustainability</i>					0.751	0.834
My company diversifies the local economy	0.632					
My company creates jobs for local people	0.659					
My company creates new markets for local products/services	0.736					
My company is a strong economic contributor to the local community	0.763					
My company supports local organizations and activities	0.744					
<i>Institutional Sustainability</i>					0.815	0.877
Community residents have an opportunity to be involved in our sustainability decision making			0.771			
Our sustainability policies are developed in cooperation with local businesses in the region			0.784			
There is sufficient information available about our sustainability efforts			0.855			
The information distributed by our company accurately reflects the company's sustainability efforts			0.789			
<i>Socio-Cultural Sustainability</i>					0.675	0.801
My company promotes diversity and inclusion in the workplace				0.580		
My company encourages our employees to be sustainable				0.814		
My company takes good care of our employees				0.695		
My company creates development opportunities for our employees				0.735		
<i>Environmental Sustainability</i>					0.823	0.875
My company tries to minimize environmental waste and pollution		0.761				
My company puts efforts in maintaining the local environment		0.750				
My company invests in environmentally sustainable technology/processes		0.775				
My company tries to use alternative/efficient energy sources (e.g., solar, wind, or other renewable energy)		0.814				
My company has or is pursuing environmental certifications (e.g., LEED, ISO14000, carbon neutral)		0.720				

Table 3. Barriers construct validity results

Scale/Item	Fact 1	Fact 2	Fact 3	Fact 4	Fact 5	Cronbach Alpha	Composite Reliability
<i>Resources Cost</i>						0.795	0.831
We associate CS with unavoidable expenses	0.108						
We do not have sufficient financial resources for CS	0.839						
We feel that CS implementation is too time-consuming	0.776						
We lack the time to implement sustainability	0.857						
We have difficulty obtaining information about implementing sustainability	0.795						
<i>Resources People</i>						0.917	0.937
Our employees do not have enough knowledge about CS to implement		0.858					
We do not have the relevant expertise for CS implementation		0.885					
We do not have adequate training for CS implementation		0.892					
Our employees do not have the necessary skills for implementing sustainability		0.862					
We do not have adequate manpower to implement sustainability		0.828					
<i>Resources Relations</i>						0.868	0.909
We feel that our suppliers are not actively involved in CS activities			0.788				
We feel that our customers are not actively involved in CS activities			0.849				
We do not have strong enough relationships with suppliers to implement CS			0.875				
We do not have strong enough relationships with customers to pursue sustainability			0.869				
<i>Governance Measures</i>						0.922	0.941
We do not have metrics to quantify CS benefits				0.880			
We do not have internal controls to monitor and enforce CS				0.889			
We lack benchmarking standards to compare our CS performance				0.840			
We are unable to monitor whether our sustainability requirements are met				0.861			
We do not have a good way to measure our sustainability performance				0.895			
<i>Leadership</i>						0.685	0.759
CS is not part of our company's vision and/or mission statement					0.803		
Our day-to-day decisions do not align with our sustainability strategy					0.805		
Our leadership appears to resist sustainability					0.726		
Our top management does not support CS implementation					0.839		
Top leadership believes in CS [R]					0.560		

Table 4. Discriminant validity results

	Res Cost	Res People	Res Relation	Gov Measure	Leader-ship	Econ Sust	Soc Sust	Env Sust	Inst Sust
ResCost	0.733								
ResPeople	0.697	0.865							
ResRelation	0.619	0.739	0.846						
GovMeasure	0.650	0.732	0.763	0.873					
Leadership	0.625	0.634	0.671	0.726	0.753				
EconSust	-0.228	-0.25	-0.232	-0.293	-0.344	0.709			
SocSust	-0.323	-0.348	-0.317	-0.354	-0.475	0.548	0.711		
EnvSust	-0.248	-0.273	-0.247	-0.341	-0.385	0.541	0.651	0.764	
InstSust	-0.252	-0.291	-0.283	-0.405	-0.359	0.539	0.555	0.669	0.800

Note. *All correlations significant at $p < .001$, square root of average variance extracted right justified on the diagonal.

3.2 Analysis of Hypotheses

Smart PLS V3.2.9 was used to analyze the study hypotheses. This structural equation modeling (SEM) program using variance-based partial least squares was used over alternative estimation methods due to the complexity of the proposed model (Peng & Lai, 2012). Additionally, while we started with sufficient data records for other SEM analysis methods, we did split the sample for some of our control variable and post-hoc model tests; PLS works well with smaller sample sizes and does not require a specific data distribution as does maximum likelihood (Chin & Newsted, 1999; Reinartz, Haenlein, & Henseler, 2009). Both standard analyses and bootstrap techniques were applied to determine path estimates, significance, and model fit. The significant paths and explained variance of the outcome variables are shown in Figure 2. Surprisingly, results did not find support for H1 (lack of resources was not a barrier to CS). H2 was partially supported; lack of governance impacts the CS measures of environmental and institutional sustainability. And H3 was fully supported. Goodness of fit of the overall model was evaluated using the R^2 and SRMR indices. R square values for the dependent variables were greater than the minimum threshold of 0.1, and the SRMR was less than 0.08.

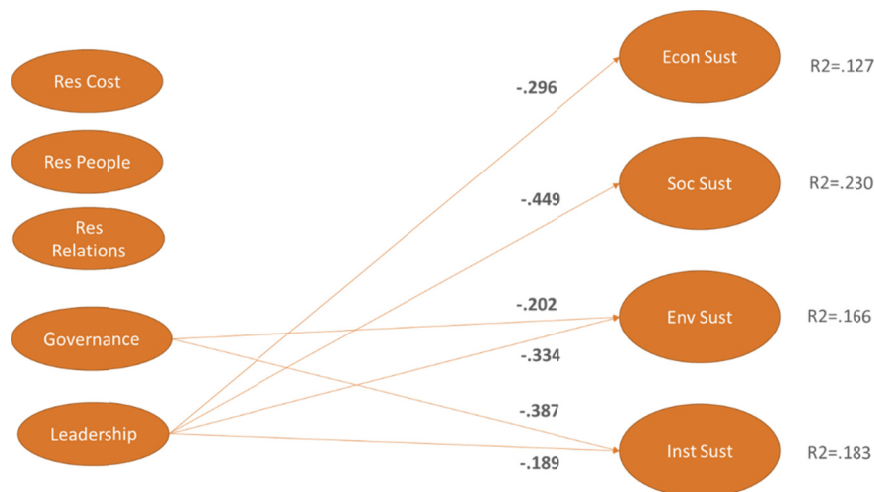


Figure 2. SEM model results

3.3 Control Variable and Post Hoc Analyses

Additional models were run to test four control variables, including size, revenue, and structure of the firms, as well as management level of the respondents, as these are typical controls that might impact sustainability efforts. A control model with just those variables as predictors demonstrated a worse fit and much lower variance explained in the outcome variable. The full model, including the control variables, showed an increase in variance for the outcome variable over the theoretical model; this was explored further because the management level of the respondent showed significant paths to the outcome measures, and size of the company significantly impacted one dimension of CS (the environmental dimension). The full model with only the size control showed no difference in explained variance. As a result, size, revenue, and structure were excluded from further analysis. The increase in variance came from adding the management level control; thus, that was examined further in a *post hoc* analysis.

The data set was split apart to test models comparing upper (director and executive) vs. lower (supervisor and manager) management levels. We particularly thought this might explain the surprising lack of support for the first hypothesis (lack of resources). Lower-level managers explained more variance in the economic dimension of CS (.156 vs. .127) but lower variance in the other outcome variable dimensions. This also reduced the significance for H2 and H3 and still did not support H1. The upper-level managers explained significantly more variance in all outcome dimensions (.151 vs. .127 economic, .238 vs. .166 environmental, .336 vs. .230 social, and .224 vs. .183 institutional), and resulted in significant pathways related to H1b—from people resources to the dimension of social sustainability (-.308) and H1c—from relationship resources to the dimension of economic sustainability (+.257). Upper-level managers likely have more concerns for resources and finances as well as more knowledge of company practices. Interestingly, a lack of relationship resources positively impacts the economic sustainability dimension; perhaps relying on partners is perceived as hurting efforts to impact the

community financially. The level of management clearly impacts views on corporate sustainability, and these *post hoc* results should be explored further in future research.

3.4 Ancillary Exploration

When asked if their company's sustainability practices had changed due to the pandemic (yes or no), 15.8% of respondents said they had. This seemed a bit low; it is possible that some were not aware of changes or that some did not want to discuss any changes (or fill in answers to the open-ended questions). Of the 57 who experienced changes, 80.7% described a positive effect on sustainability, though more than half of these were working less/virtually, so therefore not purposefully positive. Others noted that their company was recycling more, reducing waste, and reducing energy usage; a handful noted that they purchased more sustainable materials. Only 19.3% said the company was producing more waste (due to higher use of disposable materials) or their initiatives were on hold. It was assumed that the pandemic might be more of a barrier to CS due to the financial hardships many faced. However, this did not seem to be the case; companies were perhaps more mindful of their practices and realized that sustainability helps reduce costs. Participants were also asked whether they believed the changes they observed were temporary or permanent. Among those who experienced changes, 45.6% responded that the changes would remain in place due to the positive outcomes. While these results are just exploratory and not tied to our quantitative results, we offer a tentative proposition for further exploration that *the pandemic disruption was potentially not a barrier to CS*.

4. Discussion

The research results demonstrated that a lack of resources was not a barrier to CS (H1a, H1b, and H1c were not supported), a lack of governance was a barrier to two aspects of CS (H2 was partially supported), and a lack of leadership was a barrier to CS (H3 was supported). It was surprising that the most frequently cited barrier in the existing literature—resources—was not significant here. When upper management results were isolated from lower levels of management, a lack of people resources and relationship resources impacted one aspect of CS. Perhaps this is an artifact of the data being collected during the pandemic when companies were concerned about a general lack of resources. Or, possibly, organizations have finally begun to embrace the value of sustainability, overriding any initial investments that might be necessary (i.e., the benefits are worth any cost). The research was conducted with a wide variety of industries in the U.S., and size, revenue, and financial structure did not have an impact on the results. Extant studies cited often examined a specific sector or size of a company; the different results could conceivably be due to this focus. Because the current sample was broader, the results are informative, thought-provoking, and fairly generalizable to all organizations in the U.S.

4.1 Theoretical Implications

4.1.1 Prism of Sustainability

The study findings have implications for theory in sustainability. Brown et al. (2022) point out that CS research is still fragmented and limited and lacks terminology clarity. This lack of theoretical foundation has been identified as the most critical reason for ineffective business actions to improve the environment and society (Pazienza et al., 2022). Considering sustainability's wide scope and complexity as a concept (Amini, 2014), its magnitude needs to be assessed through tangible and measurable indicators (Castaneda, Arroyo, & Loza, 2020). Business research has typically relied on a single dimension of sustainability (e.g., environmental) but has more recently evolved to address the triple bottom line (e.g., Carter & Rogers, 2008; Rajeev et al., 2017). The finance and accounting disciplines have begun to explore ESG (environmental, social, and governance) in the context of smart investing (Li et al., 2021); this stream ties corporate governance to financial performance. The current research relied on the prism of sustainability to measure CS, which has been used primarily in disciplines outside of business but incorporates an institutional dimension (Cottrell, Vaske, & Roemer, 2013; Spangenberg, 2002). With its environmental, social, economic, and institutional dimensions, the PoS essentially combines the triple bottom line with ESG factors, and it was established and empirically tested earlier than the sustainability dimensions typically used in business research. The PoS has recently been applied in business to examine CS (McGrady, Golicic, & Cottrell, 2022), and the current study further expands the contexts in which the PoS can be used. Because it encompasses the triple bottom line and ESG, the PoS presents CS more holistically and provides a new framework for assessing CS that could, hopefully, help businesses make better decisions regarding sustainability initiatives.

4.1.2 Barriers to Sustainability

The current research is also an extension of other work on barriers to sustainability. Results confirmed that a lack of leadership and governance are major barriers. And though it was not significant in the overall sample,

inadequate people resources (i.e., employees) were a barrier to CS for upper-level managers. These findings agree with literature that has examined these barriers in prior studies (Arevalo & Aravind, 2011; Laudal, 2011; Yuen & Lim, 2016; Ling, Cheng, & Yi, 2023). Additionally, the research builds on the work of Garavan et al. (2010), who categorized barriers to CS according to three levels—the individual level, organizational level, and institutional level. Latapi et al. (2021) tested this conceptualization in the EU energy sector and classified leadership as an individual-level barrier, resources at the organizational level, and governance barriers at the institutional level. Their findings further note that the individual barriers are direct barriers in that the company has more control to combat their influence, while a lack of resources and governance are indirect, which can be more difficult for a business to overcome. This study's results support the individual level—insufficient leadership—as the most predominant obstacle, corroborating Greenbaum (2022), who highlighted a need for leaders and board members to build their competencies surrounding sustainability.

Finally, results also speak to theory on managerial orientations within firms; Beske (2012) argues that a sustainability orientation is important for the implementation of sustainability. This type of mindset within the organization and its leaders is needed for a company to evolve its sustainability efforts. The orientation is an organizational view; however, it requires upper management to support it (Mazutis, 2013). Thus, it is understandable that leadership is a primary barrier along with the governance established and enforced by those leaders.

4.2 Managerial Implications

The results have implications for managers, particularly those leaders in higher-level positions. Findings demonstrated that a lack of leadership is the biggest barrier to CS. Upper management needs to support CS and incorporate it into the overall company and business unit strategies for it to be implemented successfully. Sheehan et al. (2023) argue that sustainability starts at the top by focusing on the “g”—governance—in the ESG model. Investors want to know that everyone at the table has a clear understanding of sustainability. Greenbaum (2022) points out that leaders should educate themselves and build their ESG competency because ESG starts at the top; those who want to stand out as a leader today and in the future should build deep knowledge and understanding of the business impact of sustainability. Once that foundation is established, boards of directors and executive-level management should set the tone and provide inspiration, guidance, and policies necessary for a transition from a shareholder value to a stakeholder-value mindset. Leaders need to set an example for the rest of the company with respect to practices in this area. Additionally, management should set controls and measures to govern the organization's sustainability efforts while also being nimble and willing to adapt to different courses of action if it strives to advance its CS (Risi et al., 2023). Results also demonstrated that a lack of employee knowledge and training could negatively impact sustainability efforts within the company. Thus, it is not only important to ensure upper management genuinely supports CS, but it is also imperative that there is a shared understanding of what sustainability means to the company and the initiatives that would be appropriate for the organization. If these do not exist, it may send a negative message to stakeholders and likely thwart efforts to be more sustainable. Communities and society, as stakeholders that drive change, have an important role to play—by putting pressure on businesses and also on governments for policy change and transformation (Fukukawa & Moon 2004). Through the enactment of innovative guidelines and regulations, governments can “steer” society toward more sustainable practices (Bramwell et al., 2017). McGrady and Cottrell (2018) highlight that while government mandate is essential, pressure at the corporate level can be much more powerful. Hence, considering their influence and reach, large businesses are truly positioned to lead the way to a transformative societal change toward sustainability (McGrady & Cleveland, 2023).

Intuitively, it was thought that the pandemic would impede sustainability efforts and act as a barrier. A few respondents noted that initiatives were paused. However, the study results revealed that the pandemic actually positively impacted sustainability efforts. Some of this was unintentional (e.g., less employee travel), but some decisions were purposeful to reduce waste and save money. This reinforces the argument in business that sustainability actions can reduce the usage of resources. Therefore, the lesson for managers is that sustainability can help organizations during constrained times. We likely will not see another disruption as big as the COVID-19 pandemic anytime soon; however, companies experience smaller interruptions to business regularly. Implementing CS is important for many reasons, and it could also help companies weather disruptions in achieving their strategic objectives.

4.3 Limitations and Future Research

As with all study recommendations, we acknowledge that companies are unique and may face other challenges related to CS. We only included respondents from the U.S. in the survey. Further research should expand the

sample to other countries as sustainability is increasing in business globally. We drew tentative conclusions from the open-ended questions regarding the impact of the pandemic on sustainability efforts; more research is needed to explore the impact of this on the implementation of CS further. We did not find any impacts based on the size, structure, or industry of the organization, but it could be explored if there are certain types of organizations where barriers play a larger role in inhibiting CS practices. Perhaps a tool could be created and/or utilized to analyze the potential for the presence of barriers not only in different types of organizations but for various types of CS initiatives. Business for Social Responsibility (BSR) and the Global Reporting Initiative (GRI) use sustainability gap analyses, risk assessments, and reporting frameworks to identify potential issues and guidelines to overcome barriers. These could serve as a foundation for examining current CS efforts along with leadership aspects and governance metrics within an organization. Following a comparison to benchmarked best practices, a scorecard specific to the organization and its sustainability practices could be used to track performance as well as progress in overcoming any barriers that exist. When we truly learn all aspects of barriers to CS, we will be able to weave CS more fully into the business strategy of global organizations and their supply chains.

References

- Alizadeh, A. (2022). The drivers and barriers of corporate social responsibility: A comparison of the MENA region and western countries. *Sustainability*, *14*(2), 1–15. <https://doi.org/10.3390/su14020909>
- Amini, M., & Bienstock, C. C. (2014). Corporate sustainability: An integrative definition and framework to evaluate corporate practice and guide academic research. *Journal of Cleaner Production*, *76*, 12–19. <https://doi.org/10.1016/j.jclepro.2014.02.016>
- Arevalo, J. A., & Aravind, D. (2011). Corporate social responsibility practices in India: approaches, drivers, and barriers. *Corporate Governance*, *11*(4), 399–411. <https://doi.org/10.1108/14720701111159244>
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, *14*(3), 396–402. <https://doi.org/10.1177/002224377701400320>
- Bar Am, J., Dishi, V., Malik, A., Noble, S., & Frey, S. (2023). *Consumers care about sustainability back it up with their wallets*. McKinley & Company. Retrieved from <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/consumers-care-about-sustainability-and-back-it-up-with-their-wallets>
- Bartik, A. W., Bertrand, M., Cullen, Z., Glaeser, E. L., Lucac, M., & Stanton, C. (2020). *The impact of COVID-19 on small business outcomes and expectations*. Retrieved from <https://doi.org/10.1073/pnas.2006991117>
- Beske, P. (2012). Dynamic capabilities and sustainable supply chain management. *International Journal of Physical Distribution & Logistics Management*, *42*(4), 372–387. <https://doi.org/10.1108/09600031211231344>
- Bramwell, B., Higham, J., Lane, B., & Miller, G. (2017). Twenty-five years of sustainable tourism and the Journal of Sustainable Tourism: Looking back and moving forward. *Journal of Sustainable Tourism*, *25*(1), 1–9. <https://doi.org/10.1080/09669582.2017.1251689>
- Brown, J. A., Spicer, A., Rehbein, K., Higgins, C., de Bakker, F. G. A., & Bapuji, H. (2022). More than an umbrella construct: We can (and should) do better with CSR by theorizing through context. *Business & Society*, *61*(8), 1965–1976. <https://doi.org/10.1177/00076503221126642>
- Busch, T., & Schnippering, M. (2022). Corporate social and financial performance: Revisiting the role of innovation. *Corporate Social Responsibility and Environmental Management*, *29*(3), 635–645. <https://doi.org/10.1002/csr.2225>
- Carter, C., & Rogers, D. (2008). A framework of sustainable supply chain management: moving toward new theory. *International Journal of Physical Distribution and Logistics Management*, *38*(5), 360–387. <https://doi.org/10.1108/09600030810882816>
- Castaneda, R., Arroyo, P., & Loza, L. (2020). Assessing the countries sustainability: A group multicriteria decision making methodology approach. *Journal of Management and Sustainability*, *10*(1). <https://doi.org/10.5539/jms.v10n1p174>
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. In R. Hoyle (Ed.), *Statistical Strategies for Small Sample Research* (pp. 307–341). Sage Publications, Thousand Oaks, CA.

- Chong, S. H., Huang, Y., & Chang, C. H. (2020). Supporting interdependent telework employees: A moderated-mediation model linking daily COVID-19 task setbacks to next-day work withdrawal. *Journal of Applied Psychology, 105*, 1408–1422. <https://doi.org/10.1037/apl0000843>
- Cote, C. (2021). *Making the business case for sustainability*. Harvard Business School Online Business Insights Blog. Retrieved from <https://online.hbs.edu/blog/post/business-case-for-sustainability>
- Cottrell, S. P., Vaske, J., & Roemer, J. (2013). Resident satisfaction with sustainable tourism: the case of Frankenwald nature park, Germany. *Tourism Management Perspectives, 8*, 42–48. <https://doi.org/10.1016/j.tmp.2013.05.005>
- Dasayanaka, C., Gunarathne, N., & Murphy, D. (2022). Triggers for and barriers to the adoption of environmental management practices by small and medium-sized enterprises: A critical review. *Corporate Social Responsibility and Environmental Management, 29*(4), 749–764. <https://doi.org/10.1002/csr.2244>
- Dillman, D. A. (2007). *Mail and internet surveys: the tailored design method*. John Wiley & Sons, Hoboken, NJ.
- Ellram, L. M., & Golobic, S. L. (2015). Adopting environmental transportation practices. *Transportation Journal, 54*(1), 55–88. <https://doi.org/10.5325/transportationj.54.1.0055>
- Faisal, M. N. (2010). Sustainable supply chains: A study of interaction among the enablers. *Business Process Management Journal, 16*, 508–529. <https://doi.org/10.1108/14637151011049476>
- Fornell, C., & Larcker, D. F. (1981) Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Fukukawa, K., & Moon, J. (2004). A Japanese model of corporate social responsibility? *Journal of Corporate Citizenship, 16*, 45–59. <https://doi.org/10.9774/GLEAF.4700.2004.wi.00008>
- Garavan, T. N., Heraty, N., Rock, A., & Dalton, E. (2010). Conceptualizing the behavioral barriers to CSR and CS in organizations: A typology of hrd interventions. *Advanced Development Human Resources, 12*, 587–613. <https://doi.org/10.1177/1523422310394779>
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The circular economy – A new sustainability paradigm? *Journal of Cleaner Production, 143*, 757–768. <https://doi.org/10.1016/j.jclepro.2016.12.048>
- Graafland, J., & Smid, H. (2019). Decoupling among CSR policies, programs, and impacts: An empirical study. *Business & Society, 58*(2), 231–267. <https://doi.org/10.1177/0007650316647951>
- Greenbaum, H. (2022). *The importance of sustainable leadership*. Forbes. Retrieved from <https://www.forbes.com/sites/forbeshumanresourcescouncil/2022/09/07/the-importance-of-sustainable-leadership/?sh=7bbd2f461b6a>
- Gurzawska, A. (2020). Towards responsible and sustainable supply chains – innovation, multi-stakeholder approach and governance. *Philosophy of Management, 19*, 267–295. <https://doi.org/10.1007/s40926-019-00114-z>
- Hair, J. F. Jr, Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications, Thousand Oaks, CA.
- Hatami, H., & Segel, L. (2021). *What matters most? Five priorities for CEOs in the next normal*. McKinsey & Company. Retrieved from <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/what-matters-most-five-priorities-for-ceos-in-the-next-normal?cid=other-eml-dre-mip-mck&hlkid=a774e1a8976d4a078406df70a8406fd5&hctky=10008938&hdpid=7d93a3c1-cfbb-4126-b694-8fc6ec8796b4>
- He, H. W., & Harris, L. (2020). The impact of COVID-19 pandemic on corporate social responsibility and marketing philosophy. *Journal of Business Research, 116*, 176–182. <https://doi.org/10.1016/j.jbusres.2020.05.030>
- Henisz, W., Koller, T., & Nuttall, R. (2019). *Five ways that ESG creates value*. McKinsey Quarterly. Retrieved from <https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Strategy%20and%20Corporate%20Finance/Our%20Insights/Five%20ways%20that%20ESG%20creates%20value/Five-ways-that-ESG-creates-value.ashx>

- Honeywell. (n.d.). *Honeywell study finds 80% of U.S. companies have sustainability initiatives in place*. Retrieved from <https://buildings.honeywell.com/us/en/news-events/news/2021/09/honeywell-study-finds-80-of-us-companies-have-sustainability-initiatives-in-place>
- Huayahuaca, C., Cottrell, S., & Gradl, S. (2010). Resident perceptions of sustainable tourism development: Frankenwald Nature Park, Germany. *International Journal of Tourism Policy*, 3(2), 125–141. <https://doi.org/10.1504/IJTP.2010.034207>
- Hunoldt, M., Oertel, S., & Galander, A. (2020). Being responsible: How managers aim to implement corporate social responsibility. *Business & Society*, 59(7), 1441–1482. <https://doi.org/10.1177/0007650318777738>
- Ioannis, I., & Serafeim, G. (2019). *Corporate sustainability: A strategy?* HBS Working Paper No. 19-065; HBS: Boston, MA, USA, 2019. Retrieved from https://www.hbs.edu/faculty/Publication%20Files/19-065_16deb9d6-4461-4d2f-8bbe-2c74b5beffb8.pdf
- Khan, O., Marrucci, L., Daddi, T., & Bellini, N. (2021). Adoption of circular economy and environmental certifications: Perceptions of tourism SMEs. *Journal of Management and Sustainability*, 11(1), 218–231. <https://doi.org/10.5539/jms.v11n1p218>
- Klein, N., Deutz, P., & Ramos, T. B. (2022). A survey of circular economy initiatives in Portuguese central public sector organisations: National outlook for implementation. *Journal of Environmental Management*, 314, 114982. <https://doi.org/10.1016/j.jenvman.2022.114982>
- Kumar, A., Luthra, S., Mangla, S. K., & Kazançoğlu, Y. (2020). COVID-19 impact on sustainable production and operations management. *Sustainable Operations and Computers*, 1, 1–7. <https://doi.org/10.1016/j.susoc.2020.06.001>
- Latapí, M., Jóhannsdóttir, L., Davísdóttir, B., & Morsing, M. (2021). The barriers to corporate social responsibility in the Nordic energy sector. *Sustainability*, 13, 4891. <https://doi.org/10.3390/su13094891>
- Laudal, T. (2011). Drivers and barriers of CSR and the size and internationalization of firms. *Social Responsibility Journal*, 7, 234–256. <https://doi.org/10.1108/174711111111141512>
- Li, T., Wang, K., Sueyoshi, T., & Wang, D. D. (2021). ESG: Research progress and future prospects. *Sustainability*, 13(21), 11663. <https://doi.org/10.3390/su132111663>
- Ling, K. C., Cheng, M. L. S., & Yi, T. X. (2023). Determinants of corporate sustainability in the Malaysian construction industry. *Journal of Management and Sustainability*, 13(1). <https://doi.org/10.5539/jms.v13n1p166>
- Mangla, S. K., Kusi-Sarpong, S., Luthra, S., Bai, C., Jakhar, S. K., & Khan, S. A. (2019). Operational excellence for improving sustainable supply chain performance. *Resource Conservation and Recycling*, 142, 277–278. <https://doi.org/10.1016/j.resconrec.2018.11.014>
- Mazutis, D. D. (2013). The CEO effect a longitudinal, multilevel analysis of the relationship between executive orientation and corporate social strategy. *Business & Society*, 52(4), 631–648. <https://doi.org/10.1177/0007650313490510>
- McGrady, P., & Cleveland, S. (2023). *Tesla's Quest for Sustainable Energy*. Greencars.com. Retrieved from <https://www.greencars.com/expert-insights/teslas-quest-for-sustainable-energy>
- McGrady, P., & Cottrell, S. (2018). Factors affecting corporate sustainability among Colorado ski resorts: A mixed methods approach. *Journal of Tourism and Hospitality Management*, 6(4), 167–186. <https://doi.org/10.17265/2328-2169/2018.08.003>
- McGrady, P., Golicic, S. L., & Cotrell, S. (2022.) The diffusion of corporate sustainability in the ski industry. *International Journal of Innovation and Sustainable Development*, 16(3/4), 512–537. <https://doi.org/10.1504/IJISD.2022.123827>
- Mefford, R. (2019). Sustainable CSR in global supply chain. *Journal of Management and Sustainability*, 9(1), 82–92. <https://doi.org/10.5539/jms.v9n1p82>
- Mitnick, B. M., Windsor, D., & Wood, D. J. (2023). Moral CSR. *Business & Society*, 62(1), 192–220. <https://doi.org/10.1177/00076503221086881>
- Moktadir, A., Mithun Ali, S., Rajagopal, R., & Paul, S. (2018). Modeling the interrelationships among barriers to sustainable supply chain management in leather industry. *Journal of Cleaner Production*, 181(3), 631–651.

- <https://doi.org/10.1016/j.jclepro.2018.01.245>
- Monash School of Business. (2023). *Why unsustainable businesses are doomed*. Retrieved from <https://www.monash.edu/business/future-students/discover/graduate/why-unsustainable-businesses-are-doomed>
- Murillo-Luna, J., Garcés-Ayerbe, C., & Rivera-Torres, P., (2011). Barriers to the adoption of proactive environmental strategies. *Journal of Cleaner Production*, 19(13), 1417–1425. <https://doi.org/10.1016/j.jclepro.2011.05.005>.
- Ninia, J. (2019). *Is sustainability a major concern for U.S. companies, or is China moving to the fore?* Cornell SC Johnson College of Business. Retrieved from <https://business.cornell.edu/hub/2019/03/25/sustainability-us-companies-or-china/#:~:text=When%20it%20comes%20to%20corporate,lags%20behind%20several%20countries%20worldwide>.
- Pan, S. L., & Zhang, S. X. (2020). From fighting COVID-19 pandemic to tackling sustainable development goals: An opportunity for responsible information systems research. *International Journal of Information Management*, 55, 102–196. <https://doi.org/10.1016/j.ijinfomgt.2020.102196>
- Pazienza, M., de Jong, M., & Schoenmaker, D. (2022). Clarifying the concept of corporate sustainability and providing convergence for its definition. *Sustainability*, 14(13), 7838. <https://doi.org/10.3390/su14137838>
- Peng, D. X., & Lai, F. (2012). Using partial least squares in operations management research: a practical guideline and summary of past research. *Journal of Operations Management*, 30(6), 467–480. <https://doi.org/10.1016/j.jom.2012.06.002>
- Pinto, L., & Allui, A. (2020). Critical drivers and barriers of corporate social responsibility in Saudi Arabia organizations. *Journal of Asian Finance Economics and Business*, 7, 259–268. <https://doi.org/10.13106/jafeb.2020.vol7.no11.259>
- Plachy, R. J., & Smunt, T. L. (2022). Rethinking managership, leadership, followership, and partnership. *Business Horizons*, 65, 401–411. <https://doi.org/10.1016/j.bushor.2021.04.004>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>.
- Rajeev, A., Pati, R. K., Padhi, S. S., & Govindan, K. (2017). Evolution of sustainability in supply chain management: a literature review. *Journal of Cleaner Production*, 162, 299–314. <https://doi.org/10.1016/j.jclepro.2017.05.026>
- Rasche, A., Morsing, M., & Moon, J. (2017). *Corporate Social Responsibility. Strategy, Communication, Governance*; Cambridge University Press. <https://doi.org/10.1017/9781316335529>
- Raza, J., Liu, Y., Zhang, J., Zhu, N., Hassan, Z., Gul, H., & Hussain, S. (2021). *Sustainable supply management practices and sustainability performance: The dynamic capability perspective*. SAGE Open. <https://doi.org/10.1177/21582440211000046>
- Reinartz, W. J., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *INSEAD Working Papers Collection*, 44, 1–49. <https://doi.org/10.2139/ssrn.1462666>
- Risi, D., Wickert, C., & Ramus, T. (2023). Coordinated enactment: How organizational departments work together to implement CSR. *Business & Society*, 62(4), 745–786. <https://doi.org/10.1177/00076503221110213>
- Sanchez-Planelles, J., Segarra-Ona, M., & Peiro-Signes, A. (2021). Building a theoretical framework for corporate sustainability. *Sustainability*, 13(273), 1–21. <https://doi.org/10.3390/su13010273>
- Sanchez-Planelles, J., Segarra-Ona, M., & Peiro-Signes, A. (2022). Identifying different sustainable practices to help companies to contribute to the sustainable development: Holistic sustainability, sustainable business and operations models. *Corporate Social Responsibility and Environmental Management*, 29(4), 904–917. <https://doi.org/10.1002/csr.2243>
- Sheehan, N., Vaidyanathan, G., Fox, K., & Klassen, M. (2023). Making the invisible, visible: Overcoming barriers to ESG performance with an ESG mindset. *Business Horizons*, 66, 265–276. <https://doi.org/10.1016/j.bushor.2022.07.003>

- Singh Mann, B. J., & Kaur, H. (2019). *Sustainable supply chain activities and financial performance: An Indian experience*. *Vision*. <https://doi.org/10.1177/0972262919863189>
- Spangenberg, J. (2002). Environmental space and the prism of sustainability: frameworks for indicators measuring sustainable development. *Ecological Indicators*, 2(3), 295–309. [https://doi.org/10.1016/S1470-160X\(02\)00065-1](https://doi.org/10.1016/S1470-160X(02)00065-1)
- Su, R., Obrenovic, B., Du, J., Godinic, D., & Khudaykulov, A. (2022). COVID-19 pandemic implications for corporate sustainability and society: A literature review. *International Journal of Environmental Research and Public Health*, 19(3). <https://doi.org/10.3390/ijerph19031592>
- Sumanasiri, A. (2020). Leadership dimensions influencing sustainability leadership in Sri Lanka: Mediating effect of managers' ethical behavior and organizational change. *Journal of Management and Sustainability*, 10(1). <https://doi.org/10.5539/jms.v10n1p113>
- Sustainable Development Solutions Network. (2023). *Sustainable Development Report 2022*. Retrieved from <https://resources.unsdsn.org/2022-sustainable-development-report>
- Trianni, A., Cagno, E., & Neri, A. (2017). Modelling barriers to the adoption of industrial sustainability measures. *Journal of Cleaner Production*, 168, 1482–1504. <https://doi.org/10.1016/j.jclepro.2017.07.244>
- Venkatesh, V., Ganster, D., Schuetz, S., & Sykes, T. A. (2021). Risks and rewards of conscientiousness during the COVID-19 pandemic. *Journal of Applied Psychology*, 106(5), 643–656. <https://doi.org/10.1037/apl0000919>
- Visser W. V. (2011). *The Age of Responsibility*. John Wiley.
- Wongsnuopparat, S., & Chunyang, W. (2021). Corporate sustainability: Study of factors that affect corporate towards organizational sustainability in today fast-changing world. *Journal of Management and Sustainability*, 11(2). <https://doi.org/10.5539/jms.v11n2p56>
- Yang, Y., Orzes, G., Jia, F., & Chen, L. (2021). Does GRI sustainability reporting pay off? An empirical investigation of publicly listed firms in China. *Business & Society*, 60(7), 1738–1772. <https://doi.org/10.1177/0007650319831632>
- Yuen, K. F., & Lim, J. M. (2016). Barriers to the implementation of strategic corporate responsibility in shipping. *The Asian Journal of Shipping and Logistics*, 32(1), 49–57. <https://doi.org/10.1016/j.ajsl.2016.03.006>
- Zhang, D., Lu, S., Morse, S. et al. (2022). The impact of COVID-19 on business perspectives of sustainable development and corporate social responsibility in China. *Environment, Development and Sustainability*, 24, 8521–8544. <https://doi.org/10.1007/s10668-021-01798-y>

Copyrights

Copyright for this article is retained by the author, with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).