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Social network centrality and the corporate environment: The case of sexual diversity policies

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Abstract

We study the external influence of social capital, measured by Facebook's (now Meta) Social Connectedness Index, on a firm's decision to adopt policies that promote a more diverse corporate environment. Recent studies find corporate policies that embrace sexual diversity are beneficial to firms and their stakeholders, thereby contributing to their corporate social responsibility (CSR) and business sustainability. We find that firms with a high social network centrality are more likely to adopt policies and business strategies that support sexual diversity. Moreover, firms that adopt good CSR practices are more likely to implement more inclusive policies such as sexual diversity policies. This provides for a more comfortable work environment for the LGBT+ community. However, we also find that firms reduce their adoption of inclusive policies during times of economic uncertainty, supporting the pessimistic view that firms decrease window dressing activities during economic downturns when governance is tightened, and resources are scarce. We attribute this phenomenon to the exploitation of agency benefits by managers.

KEYWORDS
corporate social responsibility, inclusive corporate environment, sexual diversity policies, social capital, social network centrality

1 | INTRODUCTION

In a landmark ruling in June 2020, the Supreme Court of the United States ruled that federal law protects LGBTQ[1] workers from discrimination (Vogue & Cole, 2020). This significant decision extends legal protection to millions of workers across the country, encompassing claims related to both gender identity and sexual orientation. With the increasing focus on issues surrounding sexual diversity, businesses have progressively adopted gender diversity policies as integral components of their overall business strategies. Previous studies on sexual diversity have consistently demonstrated a positive relationship between these policies and the quality of a firm's human capital. Firms that have well-defined sexual diversity policies tend to experience several advantages, including cultivating more productive employees (Badgett et al., 2013; Everly et al., 2014; Shan et al., 2017), improving employee recruitment efforts (Clermont, 2006; Metcalf & Rolfe, 2011), reducing employee turnover rates (Jauhari & Singh, 2013; Metcalf & Rolfe, 2011), garnering higher regard from employees (Cordes, 2012), engaging more innovative activities (Kyaw

[1]In this study, the acronym LGBT is used generically to also include the LGBTQ and LGBTQIA communities, and so on., sometimes referred to as the LGBT+ community.

et al., 2021), and creating a less stressful workplace environment (Ragins & Cornwell, 2001). Furthermore, research has consistently shown that sexual diversity policies are positively correlated with various aspects of firm performance, including financial performance (Hossain et al., 2020; Jiraporn et al., 2019; Pichler et al., 2018; Shan et al., 2017), credit ratings (Chintrakarn et al., 2018, 2021), stock returns (Johnston & Malina, 2008; Li & Nagar, 2013; Shan et al., 2017), and market valuation (Shan et al., 2017; Wang & Schwarz, 2010).

The benefits of implementing policies that support sexual diversity within a firm's operations are evident. What remains to be explored are the defining characteristics of firms that are more inclined to adopt these inclusive policies, which embrace sexual diversity in all its forms within the corporate environment. This article investigates the influence of a firm's social network centrality on its decision to adopt policies that support sexual diversity, ultimately contributing to a more inclusive corporate environment and enhancing their corporate social responsibility (CSR) and business sustainability. We expand our exploration beyond gender diversity to encompass corporate practices that promote sexual diversity, including those that embrace the LGBT+ community. Our premise is that firms with a high degree of social network centrality would draw public attention from various stakeholders, thereby influencing them to adopt supportive sexual diversity policies.

Social interactions can potentially have significant effects on economic outcomes (Hirshleifer, 2020). At the core of this concept lies the social process through which individuals observe and communicate with each other, including interactions through social media. When information is transmitted from one person to another, it often undergoes social transmission bias, where ideas are modified as they are passed on. Since behavior is believed to be socially emergent, investors tend to discuss their more successful trades more frequently than their less successful ones. A bias can emerge when recipients of positive information become excessively attracted to it without making necessary adjustments.

In their research on public attention to gender equality and diversity, Giannetti and Wang (2023) investigate how increased public attention to societal concerns and awareness of discrimination are reflected in corporations.[2] They find that heightened public attention to gender equality issues correlates with increased gender diversity on corporate boards. When public awareness regarding gender equality rises, firms tend to broaden their search for qualified female candidates and rely less on well-connected male networks for director appointments.

Stakeholder theory advocates that firms should consider the benefits to various categories of stakeholders in addition to their own interests (Donaldson & Preston, 1995). Correspondingly, corporations have addressed the concerns and interests of other external stakeholders, including the community and the environment (Post et al., 2014).

Recent research on diversity focuses primarily on the impact of diverse boards on various firm policies, leading to reduced risk and improved performance (Bernile et al., 2018), investment decisions (Harjoto et al., 2018; Midavaine et al., 2016), corporate innovation (Wu et al., 2021), and the influence of gender diversity on strategic changes within firms (Sidhu et al., 2021). Other have explored key internal factors that influence a firm's decision to implement sexual diversity policies. Kyaw, Treepongkaruna, Jiraporn, and Padungsaksawasdi (2021), as well as Kyaw, Chindasombatcharoen, Jiraporn, and Treepongkaruna (2021), find that firms with high board gender diversity, and a significant proportion of directors appointed after the current CEO has taken office, are more likely to adopt sexual diversity policies. Additionally, external factors in the business environment can also impact a firm's corporate policies on sexual diversity. Everly and Schwarz (2014) report that regulations in the state where firms are headquartered and whether other companies in the same industry have adopted progressive policies are key external factors that influence firms' decisions on sexual diversity policies.

The existing literature highlights the concept of social capital, which refers to the network of relationships among stakeholders in a society to which both individuals and organizations are connected. However, as proposed by Jensen and Meckling (1976), agency theory suggests that management tends to act opportunistically, prioritizing personal interests over those of stakeholders. Therefore, despite the generally positive perception of sexual diversity policies as beneficial to firms, the emergence of agency problems can cast doubt on their implementation. This doubt arises because the adoption of such policies is associated with a lower board quality and higher CEO compensation (Kyaw, Chindasombatcharoen, Jiraporn, & Treepongkaruna, 2021). Moreover, managers may overinvest in these activities to reduce their personal risk exposure (Chintrakarn et al., 2021). Consequently, while the advantages of adopting sexual diversity policies are appealing, the potential presence of agency problems can lead to undesirable outcomes.

To capture social network centrality, we use the measures developed by Hirshleifer et al. (2021) and Bali et al. (2021).[3] Network centrality measures are commonly employed in graph theory to gauge the extent to which a firm occupies a highly connected position within the information transmission network of its potential investors. Traditionally, data related to social connectedness is limited because of the scarcity of large-scale representative datasets on social connections among individuals or geographic regions. Recent research has turned to data from online social networking services such as Facebook, LinkedIn, and Twitter (now X). Studies by Bailey et al. (2017), Bailey et al. (2018), and Kim et al. (2020) involve the construction of a Social

[2]Giannetti and Wang (2023) examine public attention to issues of gender equality by using Google's Search Volume Index to measure public attention over time within a US state and the relative public attention across states within a year. They investigate if firms are receptive to societal concerns by studying how changes in public attention to gender equality affects board composition. Using Google Search Trends, identified terms such as gender equality, gender inequality, and feminism, and downloaded the Google Search Volume Index—an index of public attention to the searched terms. A public attention measure is then created for comparison across various US states over time.

[3]Hirshleifer et al. (2021) show that earnings announcements made by firms in locations with higher investor social network centrality attract more attention from both retail and institutional investors. In addition, Bali et al. (2021) report that stocks dominated by retail investors manifest a lottery anomaly, which is boosted by high investor attention.

Connectedness Index (SCI) based on friendship links observed on Facebook. The SCI quantifies the relative frequency of Facebook friendship links between pairs of counties in the United States and between US counties and foreign countries. Leveraging the vast scale of data and the relative representativeness of Facebook's user base, the SCI offers a comprehensive measure of friendship networks at the national level, accessible to a wide research community. Hirshleifer et al. (2021) and Bali et al. (2021) employ the SCI to assess a firm's connectedness.

To gain insight into the motivations behind high social network centrality firms' adoption of sexual diversity policies, we investigate whether such policies are consistently applied across various economic environments or if any agency concerns come into play. We conducted an experiment that incorporates the global financial crisis (GFC) as an additional explanatory variable. During economic downturns, financial motives often take precedence over other considerations, leading to reduced window dressing activities. Firms may prioritize survival amid tighter governance and scarce resources, potentially reducing their inclination to embrace sexual diversity policies.

We examine whether firms located in states with Republican majorities are less likely to adopt sexual diversity policies compared with firms in states with Democratic majorities. We also investigate the influence of the location of corporate headquarters on a firm's propensity to adopt sexual diversity policies. It has been documented that the political beliefs of United States citizens polarize social issues such as abortion, gun control, and gay rights. Firms headquartered in Democratic-leaning states tend to have higher scores on social issues compared with Republican-leaning ones (Di Giuli & Kostovetsky, 2014). We anticipate an association between a firm's likelihood of adopting sexual diversity policies and the political preferences of the community in which the firm's headquarters are situated. We are interested in the location of the firm's headquarters as this is where key corporate decision-making occurs, and corporate executives and stakeholders often reside near each other.

To the best of our knowledge, this study is the first to examine the relationship between social network centrality and firms' adoption of policies promoting sexual diversity, which contribute to more inclusive workplaces. We provide evidence that supports the pessimistic view of the adoption of inclusive corporate policies, where managers may exploit their social capital for personal gains. Our research contributes to the growing literature that emphasizes the importance of accounting for political ideology in strategic management (Carnahan & Greenwood, 2018; Gupta et al., 2017; Gupta et al., 2019).

This article offers several contributions. We present new insights into governance policies related to social networks. Our findings suggest that firms are influenced by their external social capital, at different levels depending on their positions within the extensive social network, when adopting policies for internal stakeholders, including employees. We demonstrate that firms with higher social network centrality are more inclined to adopt policies and business strategies that support sexual diversity. We also show that firms with good CSR practices are more likely to implement further inclusive policies such as sexual diversity policies, which provide for a more comfortable work environment for the LGBT+ community. However, during times of financial distress, firms with high social network centrality are less likely to do so. This suggests the existence of a potential agency problem whereby corporate decision-makers may exploit sexual diversity policies for personal gain. We also find that managers' personal political beliefs play a role in policy adoption. Specifically, firms located in Republican-leaning states are less likely to adopt sexual diversity policies than those in Democratic-leaning ones.

The aticle is organized as follows: Section 2 reviews relevant existing literature and develops our hypotheses; Section 3 describes the data, methodology, and variables used; Section 4 presents our results and analyses; and Section 5 provides a summary of our work, concluding with a discussion of the study's limitations.

2 | LITERATURE REVIEW AND RESEARCH QUESTIONS

This study examines the role of social network centrality as a potentially significant factor in the adoption of sexual diversity policies. Specifically, we ask whether corporate connections to its surrounding societies affect the firm's decision to engage in corporate socially responsible policies such as sexually diverse policies. If so, what could be the underling motivations behind such benevolent corporate decisions? It is expected that well-connected firms, with strong connections to investors and other stakeholders, are more likely to implement sexual diversity policies. The strength of weak ties theory and the structural hole theory suggest that connections within social networks represent valuable "social capital" from which both individuals and organizations can benefit by exchanging valuable information. When combined with stakeholder theory, which emphasizes that firms should consider the interests of various stakeholders alongside their own (Donaldson & Preston, 1995), socially responsible initiatives, including sexual diversity policies, can enhance a firm's reputation (Castro et al., 2016; Lin et al., 2016; Pérez & Rodríguez del Bosque, 2015a, 2015b). This can be seen as a risk mitigation strategy, as the firm accumulates "moral capital" perceived by internal stakeholders and society at large, serving as insurance against adverse events (Godfrey, 2005; Godfrey et al., 2009; Jo & Na, 2012).

Individuals with high social network centrality can leverage their network positions for promotion (Burt, 1992), idea generation (Burt, 2004), information access (Cohen et al., 2010), and higher compensation (Hwang & Kim, 2009). It has also been observed that CEOs with strong connections to independent directors receive higher compensation, exhibit lower performance-pay sensitivity, and experience lower turnover-performance sensitivity (Hwang & Kim, 2009).

At the firm level, research indicates that social networks are negatively correlated with interest rates (Engelberg et al., 2012; Godlewski et al., 2012) but positively associated with firm performance (Hochberg et al., 2007; Horton et al., 2012), stock returns (Larcker et al., 2013), immediate price and volume reactions to earnings announcements (Hirshleifer et al., 2021), and the likelihood of mergers

and acquisitions (Renneboog & Zhao, 2014). Furthermore, highly connected firms tend to be more active in bidding for other firms (Renneboog & Zhao, 2014), engage more actively in CSR (Kim et al., 2020), and achieve higher risk-adjusted stock returns (Larcker et al., 2013).

Building on this prior literature, we anticipate that social network centrality will significantly affect a firm's adoption of sexual diversity policies. The strength of a firm's social connections, particularly with investors and stakeholders, can influence its decision-making regarding such policies. On the one hand, higher social network centrality may enable firms to communicate their benevolent actions related to sexual diversity more effectively to investors and stakeholders. On the other hand, social network centrality might facilitate the extraction of gains through media coverage (Ender & Brinckmann, 2019), or other forms of manipulation by managers.

The GFC serves as a natural setting for investigating the connection between social capital and the drivers behind firms' adoption of sexual diversity policies. The GFC, which unfolded from mid-2007 to early 2009, was characterized by the collapse of the United States housing market and had far-reaching economic and social repercussions. It resulted in a substantial decline in the world's GDP, by 3.5% in 2009 (International Monetary Fund, 2013), and a surge in global unemployment from 5.6% in 2007 to 6.4% in 2009.

During economic downturns like the GFC, financial considerations often take precedence over other factors, offering researchers an ideal opportunity to examine the relationship between social capital and corporate decisions regarding sexual diversity policies.

Scholars have employed periods of financial distress as exogenous shocks to study the impact of various corporate policies on firm performance. For instance, Chaston (2012), Erkens et al. (2012), and Francis et al. (2012) have documented a positive correlation between corporate governance quality and both accounting and market performance during the GFC. These studies reveal the influence of exogenous pressures on firms' behavior during financial distress. In addition to facing resource scarcity, firms encounter societal pressures. For example, Grove et al. (2011) have shown that banks are compelled to respond to their societal responsibilities, whereas Lins et al. (2017) have found that firms highly engaged with their stakeholders achieve higher stock returns compared with their peers.

Studies on corporate policies, such as the work by Kyaw, Treepongkaruna, Jiraporn, and Padungsaksawasdi (2021), have observed a heightened focus on sexual diversity policies by firms during periods of economic distress. Additionally, research conducted by Kyaw, Chindasombatcharoen, Jiraporn, and Treepongkaruna (2021) has indicated shifts in a firm's inclination to embrace sexual diversity policies during crisis. Specifically, when companies are in survival mode, facing stricter governance and limited resources, boards that lack independence tend to be less inclined to adopt sexual diversity policies. We propose that this "misbehavior" of decision-makers may stem from agency concerns, where managers strategically implement sexual diversity policies to bolster their own compensation and personal gains. Our investigation aims to shed light on whether the GFC influenced the sexual diversity policies of firms with a high social network centrality. During times of financial crisis or economic distress, will these firms, known for their support of sexual diversity, continue to uphold such policies? If they do, it suggests their policies were driven by benevolent motives. Conversely, if they do not, it raises potential agency concerns. We explore and compare the likelihood of firms adopting sexual diversity policies during economic distress versus normal times.

Existing literature has revealed the geographic dimension of corporate policies and behaviors. For instance, Gao et al. (2011) have demonstrated that firms tend to conform to the financing policies of their geographically proximate peers, and the location of a company's headquarters explains some variations in the capital structure of United States firms. Similarly, geographic factors have been considered in studies by Granovetter (1973) on corporate decisions, Kedia and Rajgopal (2009) on compensation policy, Mizruchi and Stearns (2006) on corporate borrowing, Haunschild (1993) on acquisitions, and Marquis et al. (2007) on charitable actions. Moreover, Card et al. (2010) have found that attracting and retaining corporate headquarters in a region increases charitable donations to local charities. We will further investigate how the location of corporate headquarters influences the adoption of sexual diversity policies. We anticipate a correlation between a firm's propensity to implement such policies and the political preferences of the community where its headquarters are situated. Given that political beliefs in the community can impact polarizing social issues in the United States, such as abortion, gun control, and gay rights, our empirical analysis will examine whether firms located in states with Republican majorities are less inclined to adopt policies supporting sexual diversity compared with those in states with Democratic majorities.

3 | DATA AND RESEARCH DESIGN

3.1 | Data

The data utilized in this study have been sourced from multiple outlets. Information concerning the presence of sexual diversity policies in firms has been extracted from Kinder, Lyndenberg, and Domini (KLD) Research and Analytics, Inc. This research focuses on the period spanning 1996–2010 since KLD data are accessible only within this timeframe. The primary indicator variable, denoted as LGBT_pol, assumes a value of 1 when a firm has officially implemented sexual inclusion policies supporting LGBT employees, and 0 otherwise. These policies encompass various aspects, ranging from partner benefits to explicit antidiscrimination policies regarding sexual orientation (Chintrakarn et al., 2018). Financial and accounting data have been sourced from CRSP and COMPUSTAT databases. The GFC is represented by a binary dummy variable encompassing 2007–2009. Information on social network connectedness is collected from Meta's Facebook database. United States presidential election results are leveraged to categorize states as either conservative (Republican) or liberal (Democrat).

Another pivotal variable is the SCI, employed as per Bailey et al. (2018) to gauge a firm's connectedness. In this measure, a firm's centrality is determined based on the network centrality of its headquarters county within the SCI matrix reflecting county-to-county relationships. Three distinct centrality measures—degree centrality (DC), eigenvector centrality (EC), and information centrality (IC)—are applied. Following Hirshleifer et al. (2021), we use the same index proposed by Bailey et al. (2018) to capture a firm's connectedness by measuring its centrality based on network centrality of a firm's headquarters county in the matrix of SCIs between county pairs. The structure of the investor social network is represented by a matrix $S=\{s_{ij}\}_{N\times N}$, known as the weighted adjacency matrix, with N representing the number of counties and $s_{ij}=\mathrm{SCI}_{ij}$. The centrality measure determines the significance of a node within a network. The first centrality measure, DC, is used to measure the total number of neighbors associated with a particular node:

$$\mathrm{DC}_i=\sum_j s_{ij}. \tag{1}$$

The DC measure considers only the direct path and walks with a length of one; hence, it is a measure of direct effects.

The second centrality measure, known as EC, serves as an additional gauge of a firm's connectedness within the social network. EC extends its evaluation beyond immediate connections, considering the transmission of signals along longer paths and walks, which includes assessing the average centrality scores of its immediate neighbors (Bonacich, 1972; Borgatti, 2005). This measure deems a node more central if it is adjacent to nodes of higher centrality. Consequently, EC effectively captures both direct and indirect effects within the network.

The third centrality measure, IC, was introduced by Stephenson and Zelen (1989) to offer an alternative perspective. Like EC, IC accounts for both direct and indirect effects, but it computes the harmonic mean of the informational distance between nodes. In this context, a shorter distance implies closer and fewer distinct links or connections, on average. Thus, central nodes are characterized by their ability to communicate with other nodes in fewer steps:

$$\mathrm{IC}_i=\left(\frac{1}{n}\sum_{j\neq i} d_{ij}\right)^{-1}. \tag{2}$$

In Equation (2), d_{ij} represents the topological informational distance between nodes i and j calculated by $d_{ij}=(B^{-1})_{ii}+(B^{-1})_{jj}-2(B^{-1})_{ij}$, where $B=(D+S-J)^{-1}$. D is the diagonal matrix of the degree of each node, S is the adjacency matrix, and J is a matrix of ones. The three centrality measures are normalized with a maximum score of 100, as in Hirshleifer et al. (2021).

It should be noted that the concept of well-connectedness is multidimensional as the notion of well-connected depends on how we define the nature of such connection (Borgatti, 2005; Larcker et al., 2013). First, the firm could be considered well-connected if the firm possesses a relatively great number of communication channels to society (measured by DC). Second, the firm may be well centralized if it has more connections to society, and that such connections are highly influential or are also well-connected (measured by EC). Lastly, the firm can be considered well-connected if the mass of information within the network can effectively flow through such firm (measure by IC). As such, multiple measures of centrality can be used in complement to best understand the nature of such network structure. DC and EC are commonly used in network studies (Harjoto & Wang, 2020; Howlader & Sudeep, 2016; Larcker et al., 2013; Zhang & Luo, 2017) IC is relatively newer measures and are increasingly used in recent studies across wide range of academic fields (Fitch & Leonard, 2013; Harjoto & Wang, 2020; Kumar & Mukhtar, 2023).

To control for firm characteristics, we include a firm's leverage (total debt/total assets), profitability (EBIT/total assets), investments (capital expenditures/total assets), sales revenue, free cash flow to total assets, sales growth rate (current year's sales divided by the previous year's sales), Tobin's q, a CSR score, and the percentage of female directors, which has been shown to be significant firm characteristic (Kyaw, Treepongkaruna, Jiraporn, & Padungsaksawasdi, 2021). The summary statistics of our data are reported in Table 1. On average, only 25% of our sample companies adopt sexual diversity policies. As in the method employed by Hirshleifer et al. (2021), the three centrality measures have different mean, standard deviation, as well as skewness. The centrality measures are standardized to a score within the range of 0 and 100 to facilitate comparison. In our sample, DC and EC contain a mean value of 23 and 15 points, respectively, while IC has a distinctly higher mean value of 97 points. On average, the sample has a CSR score of −0.5 points, suggesting that, in general, firms in the sample have more CSR concerns than strengths. Other firm characteristics are summarized in Table 1.

3.2 | Empirical model

We study the relation between social network centrality and a firm's adoption of sexual diversity policies by estimating a Logit model for a firm's decision on sexual diversity:

$$P_i=\frac{1}{[1+exp\{-(\alpha+\beta_1\chi_1+\beta_2\chi_2+\ldots+\beta_n\chi_n)\}]}. \tag{3}$$

P_i is the probability of firm i supporting the implementation of sexual diversity policies and χ_i is the set of independent variables for the i^{th} company. The independent variables include measures of social network centrality (DC, EC, and IC) as well as the control variables. The α and $\beta's$ represent the intercept and coefficients of the independent variables. We also use Probit and Tobit models as alternatives to the Logit method, where we expect the results to be similar across all models.

TABLE 1 Summary statistics.

	N	Mean	Std. dev.	Min.	Max.
LGBT_pol	3536	0.2508	0.4336	0	1
DC	3536	22.8592	19.9314	0.1778	100
EC	3536	15.3064	17.5353	0.0282	100
IC	3536	97.9012	3.7819	43.9482	100
Board_size	3536	2.2573	0.2600	1.3863	2.9957
%indep_dir	3536	71.2291	15.4797	11.1111	100
Avg_age	3536	4.1274	0.6030	3.8348	4.3373
FCF_to_assets	3536	0.9641	0.0750	−0.4358	0.5506
Sales	3536	8.0337	1.4800	2.7165	12.4495
EBIT_to_assets	3536	0.1450	0.0958	−0.6768	0.8966
TobinsQ	3536	2.0616	1.4431	0.4141	15.9374
%female_dir	3536	11.1195	8.6964	0	50
Leverage	3536	0.2186	0.1614	0	1.3258
Investment	3536	0.0502	0.04840	0	0.4842
CSR	3536	−0.5854	2.0078	−9	7

Note: This table provides the summary statistics of the variables used in the study. *LGBT_pol* is a dummy variable which equals 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality. *Board_size* represents the natural logarithm of the total number of directors on the board. *%indep_dir* represents the number of independent directors divided by board size. *Avg_age* represents the natural logarithm of directors' average age. *FCF_to_assets* is free cash flow divided by total assets. *Sales* is natural logarithm of annual sales. *EBIT_to_assets* is firms' earnings before interest, income tax, depreciation, and amortization divided by total assets. *TobinsQ* is firms' market value of equity divided by book value of equity. *%female_dir* represents the number of female directors divided by board size. *Leverage* is total debt divided by total assets. *Investment* is capital expenditure divided by total assets. *CSR* is the total CSR strengths minus the concerns as reported by the KLD database excluding LGBT items.
Abbreviations: CSR, corporate social responsibility; DC, degree centrality; EBIT, earnings before interest and taxes; EC, eigenvector centrality; FCF, free cash flow; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender.

4 | RESULTS AND ANALYSIS

We study the relationship between a firm's decision on sexual diversity policies and social network centrality by using the following logistic regression model.

$$LGBT\_pol_{it} = \frac{1}{[1+\exp\{-(\alpha+\beta_1 SCI+\sum\beta_n Controls_{it}+\sum Year\ effect+\sum Industry\ effect+\varepsilon_{it})\}]}. \quad (4)$$

The dependent variable, denoted as LGBT_pol, signifies the likelihood of firm i adopting sexual diversity policies in year t. It is represented as a binary dummy variable, taking the value of 1 for firms that have implemented inclusive corporate policies in support of sexual diversity. The central variable of interest is social network centrality, which is measured through various indicators: DC, EC, and IC. All these centrality measures have been standardized to a scale ranging from 0 (minimum) to 100 (maximum).

The analysis also encompasses governance-related variables. These include Board_size, which represents the natural logarithm of the total number of directors on the board; %indep_dir, indicating the proportion of independent directors relative to the board's size; % female_dir, denoting the ratio of female directors to the total board size; and Avg_age, which represents the natural logarithm of the average age of directors. Incorporated within the study are additional control variables that pertain to firm characteristics. These variables encompass FCF_to_assets (free cash flow divided by total assets), Sales (the natural logarithm of annual sales), EBIT_to_assets (earnings before interest, taxes, depreciation, and amortization divided by total assets), TobinsQ (the ratio of a firm's market value of equity to its book value of equity), Leverage (total debt divided by total assets),

TABLE 2 Effect of SCI on the adoption of LGBT-supportive policies.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Logit_degree	Logit_eigen	Logit_info	Probit_degree	Probit_eigen	Probit_info	Tobit_degree	Tobit_eigen	Tobit_info
%female_dir	0.021*	0.020*	0.020*	0.012*	0.011*	0.011*	0.003***	0.003***	0.003***
DC	0.009*			0.006*			0.001***		
EC		0.017***			0.010***			0.002***	
IC			0.187***			0.108***			0.006***
Board_size	0.037	0.141	−0.001	−0.004	0.049	−0.025	−0.004	0.004	−0.007
%indep_dir	0.015**	0.016**	0.015**	0.008**	0.008**	0.008**	0.001***	0.001***	0.001***
Avg_age	−1.728	−1.937	−1.490	−0.765	−0.873	−0.652	−0.112	−0.134	−0.096
FCF_to_assets	2.805**	2.885**	2.753**	1.610**	1.621**	1.550**	0.195	0.197	0.170
Sales	1.173***	1.172***	1.165***	0.666***	0.666***	0.664***	0.146***	0.145***	0.145***
EBIT_to_assets	−4.631***	−4.593***	−4.517***	−2.752***	−2.707***	−2.668***	−0.475***	−0.460***	−0.461***
TobinsQ	0.378***	0.368***	0.355***	0.207***	0.202***	0.196***	0.044***	0.043***	0.044***
Leverage	−0.400	−0.343	−0.284	−0.191	−0.165	−0.121	−0.125***	−0.118***	−0.135***
Investment	−2.641	−2.425	−2.704	−1.210	−1.100	−1.252	−0.274	−0.269	−0.272
CSR	0.216***	0.215***	0.227***	0.133***	0.134***	0.141***	0.028***	0.027***	0.028***
Constant	−9.626	−9.175	−28.680***	−6.173	−5.934	−17.09***	−1.005**	−0.933**	−1.665***
Observations	3300	3300	3300	3300	3300	3300	3536	3536	3536
Pseudo R^2	0.3721	0.3776	0.3796	0.3698	0.3754	0.3696	0.3874	0.3924	0.3888

Note: This table reports the regression results with LGBT-supportive policies as dependent variable. *LGBT_pol* is a dummy variable equals to 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality. *Board_size* represents the natural logarithm of the total number of directors on the board. *%indep_dir* represents the number of independent directors divided by board size. *Avg_age* represents the natural logarithm of directors' average age. *FCF_to_assets* is free cash flow divided by total assets. *Sales* is natural logarithm of annual sales. *EBIT_to_assets* is firms' earnings before interest, income tax, depreciation, and amortization divided by total assets. *TobinsQ* is firms' market value of equity divided by book value of equity. *%female_dir* represents the number of female directors divided by board size. *Leverage* is total debt divided by total assets. *Investment* is capital expenditure divided by total assets. *CSR* is the total CSR strengths minus the concerns as reported by the KLD database excluding LGBT items.

Abbreviations: CSR, corporate social responsibility; DC, degree centrality; EBIT, earnings before interest and taxes; EC, eigenvector centrality; FCF, free cash flow; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender; SCI, Social Connectedness Index.

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$.

TABLE 3 Effects of SCI on the adoption of LGBT-supportive policies with lagged dependent variable.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Logit_degree	Logit_eigen	Logit_info	Probit_degree	Probit_eigen	Probit_info	Tobit_degree	Tobit_eigen	Tobit_info
LGBT_lag	6.382***	6.372***	6.340***	3.377***	3.368***	3.368***	0.838***	0.836***	0.838***
%female_dir	0.0255*	0.0247*	0.0249*	0.0102	0.0101	0.00980	0.00116*	0.00115*	0.00119**
DC	0.0132***			0.00614***			0.000428*		
EC		0.0200***			0.00934***			0.000753***	
IC			0.202***			0.101***			0.00242*
Board_size	0.368	0.401	0.268	0.184	0.204	0.154	0.0216	0.0235	0.0199
%indep_dir	0.0165**	0.0173**	0.0177**	0.00670*	0.00689*	0.00751**	0.000669**	0.000661**	0.000685**
Avg_age	−2.936	−3.050	−2.380	−1.121	−1.169	−0.940	−0.0930	−0.100	−0.0831
FCF_to_assets	−0.359	−0.296	−0.569	−0.251	−0.262	−0.338	−0.0506	−0.0497	−0.0608
Sales	0.692***	0.701***	0.721***	0.342***	0.345***	0.355***	0.0293***	0.0292***	0.0291***
EBIT_to_assets	−2.357	−2.193	−2.363	−1.161	−1.056	−1.134	−0.0938	−0.0886	−0.0912
TobinsQ	0.309***	0.295***	0.296***	0.163***	0.157***	0.153***	0.0167***	0.0163***	0.0167***
Leverage	0.369	0.434	0.577	0.224	0.243	0.288	−0.00733	−0.00530	−0.0124
Investment	−2.125	−2.144	−2.017	−0.791	−0.777	−0.750	−0.0447	−0.0439	−0.0436
CSR	0.188***	0.187***	0.207***	0.105***	0.104***	0.115***	0.00687***	0.00677***	0.00692***
Constant	2.054	2.270	−19.90*	−0.337	−0.250	−10.91**	0.0626	0.0877	−0.203
Observations	2303	2303	2303	2303	2303	2303	2516	2516	2516
Pseudo R^2	0.718	0.720	0.720	0.716	0.718	0.719	1.215	1.216	1.215

Note: This table reports the regression results with LGBT-supportive policies as dependent variable. *LGBT_pol* is a dummy variable equals to 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *LGBT_lag* is 1 year lagged variable equals to 1 for firms adopting LGBT-supportive policies towards its LGBT employee and their domestic partners, and zero otherwise. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality. *Board_size* represents the natural logarithm of the total number of directors on the board. *%indep_dir* represents the number of independent directors divided by board size. *Avg_age* represents the natural logarithm of directors' average age. *FCF_to_assets* is free cash flow divided by total assets. *Sales* is natural logarithm of annual sales. *EBIT_to_assets* is firms' earnings before interest, income tax, depreciation, and amortization divided by total assets. *TobinsQ* is firms' market value of equity divided by book value of equity. *%female_dir* represents the number of female directors divided by board size. Leverage is total debt divided by total assets. Investment is capital expenditure divided by total assets. *CSR* is the total CSR strengths minus the concerns as reported by the KLD database excluding LGBT items. Abbreviations: CSR, corporate social responsibility; DC, degree centrality; EBIT, earnings before interest and taxes; EC, eigenvector centrality; FCF, free cash flow; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender; SCI, Social Connectedness Index.

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$.

TABLE 4 PropeSnsity Score Matching.

Panel A: Treatment effect of Social Connectedness Index on LGBT-supportive policy							
	Centrality	**Sample**	**Treated**	**Controls**	**Difference**	**S.E.**	***t*-stat**
LGBT_pol	DC	Unmatched	0.317	0.184	0.133	0.015	9.04
		ATT	0.314	0.243	0.071	0.024	2.96
	EC	Unmatched	0.330	0.170	0.160	0.015	10.82
		ATT	0.328	0.160	0.168	0.023	7.37
	IC	Unmatched	0.320	0.183	0.136	0.015	9.27
		ATT	0.316	0.205	0.111	0.023	4.88

Panel B: Effects of treatment group on LGBT-supportive policy			
	(1)	**(2)**	**(3)**
	SCI_degree	**SCI_eigen**	**SCI_info**
Treated	0.133***	0.160***	0.136***
Constant	0.184***	0.170***	0.183***
Observations	3420	3347	3406
R-squared	0.023	0.034	0.025

Note: This table provides propensity score matching results in the study. *LGBT_pol* is a dummy variable equals to 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality.

Abbreviations: DC, degree centrality; EC, eigenvector centrality; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender; SCI, Social Connectedness Index.

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$.

and Investment (capital expenditure divided by total assets). Furthermore, the analysis includes a CSR variable, quantifying total CSR strengths less CSR concerns, as reported by the KLD database, with LGBT-related items excluded. To account for potential time and industry-specific effects, the study includes year and industry (two-digit SIC) dummies. Additionally, to ensure robustness in the analysis, Equation (4) is estimated using both Probit and Tobit regression methods.

Our results, illustrating the effect of social network centrality on the adoption of sexual diversity policies, are summarized in Table 2. Models (1–3) employ logistic regression analysis, whereas Models (4–6) are estimated using Probit analysis. Models (7–9) are conducted using Tobit regression analysis. Overall, we observe a positive and significant relation between social network centrality and the probability of a firm adopting sexual diversity policies across all models. The EC and IC measures of centrality, both accounting for direct and indirect connections, are positively and statistically significant at the 1% level. The DC measure considers only direct connections and is positively and statistically significant at the 10% level.

We then compute the odds ratios by exponentiating the logistic coefficient of 1.009 for Model (1), 1.017 for Model (2), and 1.206 for Model (3). The results suggest that a one-point increase in DC is associated with a 0.94% increase in the odds of adopting sexual diversity policies, while a one-point increase in EC is associated with a 1.72% higher probability of adoption. In the case of IC, a one-point increase in the centrality score corresponds to a 20.56% increase in the odds of adopting inclusive policies. These findings support our hypothesis that firms with higher social network centrality are more likely to implement corporate policies that support sexual diversity. The percentage of independent directors has a positive and significant association with the dependent variable—the probability of a firm's adoption of sexual diversity policies. This suggests that a higher-quality board support more inclusive policies. Not surprisingly, the CSR score also shows a positive and significant relationship with the probability of a firm adopting sexual diversity policies.

Other firm characteristics, including free cash flow to total assets, the natural logarithm of sales, and Tobin's *q*, are also positively significant explanatory variables. However, EBIT_to_assets exhibits a negative and significant relationship, implying that highly profitable firms are less likely to adopt sexual diversity policies. This finding may suggest that inclusive policies incur additional costs for the adopting firms, possibly providing additional benefits to employees' LGBT+ partners. Table 3, which includes LGBT_lag, the lagged value of the dependent variable, is used to control for omitted variables. The results remain largely similar and significant, except that FCF_to_assets and EBIT_to_assets lose their statistical significance. For robustness, we employ a propensity score matching procedure to estimate the propensity score—the probability of likeness—between the treated groups (firms) and the remaining firms based on their firm characteristics, year, industry, governance structure, and CSR score:

TABLE 5 Effect of SCI on the adoption of LGBT-supportive policies during the GFC.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Logit_degree	Logit_eigen	Logit_info	Probit_degree	Probit_eigen	Probit_info	Tobit_degree	Tobit_eigen	Tobit_info
%female_dir	0.0207*	0.0202*	0.0200*	0.0115*	0.0112*	0.0111*	0.00332***	0.00326***	0.00333***
GFC	4.431***	4.389***	27.70***	2.398***	2.374***	14.32***	0.406***	0.389***	0.340
DC	0.0178***			0.0100***			0.00167***		
EC		0.0263***			0.0149***			0.00267***	
IC			0.339***			0.183***			0.00622**
GFC × DC	−0.0174***			−0.00909**			−0.00202***		
GFC × EC		−0.0186***			−0.00982***			−0.00188***	
GFC × IC			−0.240**			−0.123***			0.000227
Board_size	0.0137	0.127	−0.00286	−0.0128	0.0456	−0.0223	−0.00676	0.00242	−0.00741
%indep_dir	0.0149**	0.0156**	0.0160**	0.00796**	0.00825**	0.00900**	0.00123***	0.00120***	0.00124***
Avg_age	−1.600	−1.824	−1.272	−0.697	−0.815	−0.562	−0.109	−0.130	−0.0963
FCF_to_assets	2.862**	2.976**	2.842**	1.619**	1.661**	1.587**	0.193	0.198	0.170
Sales	1.176***	1.174***	1.164***	0.666***	0.666***	0.664***	0.146***	0.145***	0.145***
EBIT_to_assets	−4.679***	−4.620***	−4.571***	−2.779***	−2.728***	−2.697***	−0.478***	−0.461***	−0.461***
TobinsQ	0.379***	0.362***	0.347***	0.208***	0.199***	0.192***	0.0444***	0.0425***	0.0442***
Leverage	−0.392	−0.325	−0.237	−0.192	−0.159	−0.110	−0.124***	−0.117***	−0.135***
Investment	−2.594	−2.494	−2.504	−1.160	−1.127	−1.176	−0.277	−0.278	−0.272
CSR	0.213***	0.213***	0.230***	0.132***	0.133***	0.143***	0.0275***	0.0273***	0.0277***
Constant	−10.31	−9.780	⁻44.62***	−6.518	−6.230	−24.95***	−1.031**	−0.953**	−1.652***
Observations	3300	3300	3300	3300	3300	3300	3536	3536	3536
Pseudo R^2	0.3751	0.3806	0.3832	0.3723	0.3780	0.3810	0.3901	0.3943	0.3888

Note: This table reports the regression results with LGBT-supportive policies as dependent variable with financial distress as a factor. *LGBT_pol* is a dummy variable equals to 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality. *Board_size* represents the natural logarithm of the total number of directors on the board. *%indep_dir* represents the number of independent directors divided by board size. *Avg_age* represents the natural logarithm of directors' average age. *FCF_to_assets* is free cash flow divided by total assets. *Sales* is natural logarithm of annual sales. *EBIT_to_assets* is firms' earnings before interest, income tax, depreciation, and amortization divided by total assets. *TobinsQ* is firms' market value of equity divided by book value of equity. *%female_dir* represents the number of female directors divided by board size. *Leverage* is total debt divided by total assets. *Investment* is capital expenditure divided by total assets. *CSR* is the total CSR strengths minus the concerns as reported by the KLD database excluding LGBT items. *GFC* is a dummy variable equals to 1 representing years with the global financial crisis.

Abbreviations: CSR, corporate social responsibility; DC, degree centrality; EBIT, earnings before interest and taxes; EC, eigenvector centrality; FCF, free cash flow; GFC, global financial crisis; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender; SCI, Social Connectedness Index.

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$.

$$\text{Propensity score}_{it} = \alpha + \sum \beta_n \text{Controls}_{it} + \sum \text{Year effect} + \sum \text{Industry effect} + \varepsilon_{it}. \quad (5)$$

We proceed by comparing the adoption of sexual diversity policies between two distinct groups of firms: the control group and the treatment group. We assess this comparison by evaluating the average treatment effect (ATE) and the presence of joint support (Common). As presented in Table 4, the results reveal that both the matched and unmatched groups exhibit positive and statistically significant coefficients. This suggests that firms within the treated group (i.e., those with high SCI or SCI rankings) are more inclined to embrace sexual diversity policies than their counterparts in the control group (i.e., those with low SCI rankings). It is important to note that high SCI firms are defined as those whose social network centrality rankings are higher than 50% of their peers. These findings provide compelling evidence that supports our initial hypothesis that firms possessing higher social network centrality are indeed more inclined to adopt policies that promote sexual diversity.

We further delve into examining the relationship between sexual diversity policies and SCI. The objective is to shed light on whether highly connected firms genuinely implement sexual diversity policies or if this adoption is primarily driven by a strategic move aimed at enhancing the firm's financial performance by appeasing their stakeholders. We introduce economic uncertainty as an external factor to address this potential ambiguity. During periods of economic turmoil, financial motives tend to take precedence because of the limited availability of corporate resources. We investigate this phenomenon with the following model:

$$\text{LGBT\_}pol_{it} = \frac{1}{[1 + \exp\{-(\alpha + \beta_1 \text{SCI} + \beta_2 \text{GFC} + \beta_3 \text{SCI} \times \text{GFC} + \sum \beta_n \text{Controls}_{it} + \sum \text{Year effect} + \sum \text{Industry effect} + \varepsilon_{it})\}]}, \quad (6)$$

where GFC is a dummy variable for the GFC that takes on a value of 1 if a sexual diversity policy is adopted during 2007–2009, and 0 otherwise. SCI × GFC, where SCI represents different centrality measures (DC, EC, or IC), is the interaction term that describes a firm's social network centrality during the GFC. The results of Equation (6) are summarized in Table 5.

In summary, the analysis reveals several noteworthy findings. The economic distress variable generally exhibits a positive association with the adoption of inclusive policies. This aligns with prior research by Kyaw, Treepongkaruna, Jiraporn, and Padungsaksawasdi (2021) and Kyaw, Chindasombatcharoen, Jiraporn, and Treepongkaruna (2021), suggesting that firms may strategically employ inclusive policies during uncertain times. However, the coefficients for each centrality measure remain consistently positive and statistically significant at the 1% level. This reinforces our hypothesis that highly connected firms are more inclined to adopt corporate policies promoting sexual diversity.

The interaction terms between the GFC and SCI (GFC × DC, GFC × EC, and GFC × IC), however, yield different results as they have negative and statistically significant coefficients at the 1% level. This implies that highly connected firms tend to reverse their decision regarding the adoption of sexual diversity policies during financial crises. Specifically, the odds ratios are estimated to be 0.983 for Model (1), 0.981 for Model (2), and 0.787 for Model (3). These results suggest that, during the GFC, a one-point increase in DC is associated with a 1.72% decrease in the odds of adopting sexual diversity policies, a one-point increase in EC during the crisis corresponds to a 1.84% reduction in adoption odds, and a one-point increase in IC during the crisis reduces the odds of adopting inclusive policies by 21.34%.

This outcome challenges the motivations behind firms' adoption of sexual diversity policies. Highly centralized firms appear to be less inclined to adopt these policies during economic distress, suggesting that the policies enacted during regular periods may serve purposes beyond those benefiting their stakeholders. These findings do not align with the hypothesis that firms with higher social network centrality will consistently uphold sexual diversity policies regardless of the economic environment, including times of economic distress. Instead, we find that firms with greater social network centrality are less inclined to adopt sexual diversity policies when faced with economic turmoil. This represents a significant contribution to our study, being the first to suggest that a high degree of corporate connectedness may be associated with heightened agency concerns.

For robustness, we conducted several tests using a Scobit (skewed logit) model. The results consistently show a positive and significant association between each social connectedness measure (DC, EC, or IC) and the likelihood of adopting inclusive policies. Similarly, the coefficients of governance-related control variables, such as % female_dir and %indep_dir, remain positive and significant, indicating that better governance quality is linked to a higher likelihood of adopting inclusive policies. Firm performance measures, including Sales and TobinsQ, also exhibit positive and significant relationships with the adoption of inclusive policies. Moreover, firms that adopt CSR practices are more likely to implement inclusive policies. Thus, accounting for the skewness of the distribution of the variables of interest in the analysis yields results consistent with the base analysis, as summarized in Table 6.

As previously mentioned, this study investigates whether significant differences exist in firms' sexual diversity policies based on whether the geographic location of their corporate headquarters is in a Republican-leaning or Democratic-leaning state. Given our a priori expectation that firms in Republican-leaning states are less likely to adopt sexual diversity policies, we investigate whether firms located in states with Republican majorities have a lower propensity of

TABLE 6 Effect of SCI on the adoption of LGBT-supportive policies using Scobit.

	(1)	(2)	(3)
	Scobit_degree	Scobit_eigen	Scobit_info
DC	0.00790*		
EC		0.0138***	
IC			0.154***
Board_size	0.0750	0.156	0.0370
%female_dir	0.0168**	0.0164*	0.0166**
%indep_dir	0.0112**	0.0121**	0.0115**
Avg_age	−1.709	−1.872	−1.447
FCF_to-assets	2.424**	2.475**	2.358**
Sales	0.913***	0.917***	0.903***
EBIT_to_assets	−3.433***	−3.376***	−3.422***
TobinsQ	0.272***	0.265***	0.266***
Leverage	−0.363	−0.316	−0.150
Investment	−2.282	−2.104	−2.386
CSR	0.155***	0.154***	0.164***
Constant	−22.33***	−22.35***	−36.91***
Observations	3300	3300	3300
Pseudo R^2	0.165	−0.358	−0.362
Log-likelihood	−1191.907	−1180.642	−1176.86
AIC	2519.814	2497.284	2483.72
BIC	2934.728	2912.198	2880.329

Note: This table provides skewed logistic regression results with LGBT-supportive policies as dependent variable. *LGBT_pol* is a dummy variable equals to 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality. *Board_size* represents the natural logarithm of the total number of directors on the board. *%indep_dir* represents the number of independent directors divided by board size. *Avg_age* represents the natural logarithm of directors' average age. *FCF_to_assets* is free cash flow divided by total assets. *Sales* is natural logarithm of annual sales. *EBIT_to_assets* is firms' earnings before interest, income tax, depreciation, and amortization divided by total assets. Tobins*Q* is firms' market value of equity divided by book value of equity. *%female_dir* represents the number of female directors divided by board size. *Leverage* is total debt divided by total assets. *Investment* is capital expenditure divided by total assets. *CSR* is the total CSR strengths minus the concerns as reported by the KLD database excluding LGBT items. It's important to note that pseudo-*R*-squared measures may not always be the most appropriate measure of model fit, especially in logistic regression where the concept of explained variance is not as straightforward as in linear regression.

Abbreviations: AIC, Akaike Information Criterion; BIC, Bayesian Information Criterion; CSR, corporate social responsibility; DC, degree centrality; EBIT, earnings before interest and taxes; EC, eigenvector centrality; FCF, free cash flow; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender; SCI, Social Connectedness Index.

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$.

adopting sexual diversity policies compared to their Democratic counterparts.

The results in Table 7 indicate that firms in Republican-majority states have a significantly negative association, at the 1% level, with the likelihood of adopting sexual diversity policies in the workplace. This finding is consistent across both the Logit and Probit analyses for DC and EC measures of social network centrality. However, the results for IC using both the Logit and Probit analyses are not statistically significant. As expected, we do not find statistically significant results for the interaction terms between all three measures of social network centrality (i.e., DC, EC, and IC) and a firm's location in a Republican-majority state. These findings suggest that firms situated in states with Republican majorities are indeed less likely to adopt sexual diversity policies.

5 | SUMMARY AND CONCLUSION

This study contributes to the literature on CSR, business sustainability, social networks, and the corporate environment by exploring the underlying motives behind highly connected firms adopting sexual diversity corporate policies. We investigate the influence of exogenous social capital—measured by social network centrality—on the likelihood of firms adopting corporate policies on sexual diversity. Our results reveal a positively significant association between social network centrality and the probability of a firm adopting inclusive corporate policies, such as sexual diversity policies. This suggests that firms with higher social network centrality are more likely to embrace such policies, which can be seen as a positive signal of their CSR and business sustainability.

Our findings remain robust even after we have addressed potential endogeneity concerns using the propensity score matching procedure to estimate the probability of likeness between firms based on their characteristics, year, industry, governance structure, and CSR score. Our results are further affirmed through the skewed logistic regression and Probit models that consider endogenous covariates.

We find that firms that adopt good CSR practices (more CSR strengths than concerns) are more likely to implement more inclusive policies such as sexual diversity policies. This implies that there is a greater likelihood that the LGBT+ community would feel more comfortable working in an environment that embraces sexual diversity among its employees than one that does not.

It is worth noting that, while prior research on sexual diversity policies predominantly supports the optimistic view of its benefits to firms, such as enhanced reputation and stakeholder relations, the evidence suggests that managers may exploit these policies for personal gain. These agency concerns may arise from firms' adoption of sexual diversity policies not solely for the benefit of their stakeholders, but for a manager's personal gain.

We introduce the GFC as an exogenous shock to our model and find that our initial hypothesis, which assumed that highly connected firms would continue to adopt sexual diversity policies regardless of

TABLE 7 Effect of SCI on the adoption of LGBT-supportive policies with political variables.

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit_degree	Logit_eigen	Logit_info	Probit_degree	Probit_eigen	Probit_info
%female_dir	0.0178	0.0175		0.00974	0.00966	0.00994
DC	0.0105*			0.00618**		
Republican	−1.105**	−1.006**	15.82	−0.671***	−0.604**	8.495
Republican × DC	0.00402			0.00273		
EC		0.0161***			0.00940***	
Republican × EC		0.00661			0.00403	
IC			0.248***			0.139***
Republican × IC			−0.171*			−0.0924*
Board_size	0.121	0.202	0.0652	0.0413	0.0821	0.0138
%indep_dir	0.0153**	0.0160**	0.0158**	0.00814**	0.00847**	0.00879**
Avg_age	−1.754	−1.963	−1.392	−0.776	−0.874	−0.596
FCF_to_assets	2.879*	2.902*	2.539*	1.599*	1.581*	1.398*
Sales	1.186***	1.187***	1.186***	0.678***	0.678***	0.680***
EBIT_to_asset	−4.638***	−4.581***	−4.389***	−2.696***	−2.641***	−2.546***
TobinsQ	0.362***	0.355***	0.338***	0.199***	0.194***	0.187***
Leverage	−0.408	−0.374	−0.256	−0.212	−0.200	−0.120
Investment	−1.940	−1.858	−1.892	−0.830	−0.788	−0.829
CSR	0.201***	0.199***	0.218***	0.125***	0.125***	0.136***
Constant	−9.846	−9.301	−35.51***	−6.368	−6.107	−20.71***
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3175	3175	3175	3175	3175	3175
Pseudo R^2	0.3742	0.3777	0.3833	0.3727	0.3761	0.3815

Note: This table provides regression results with LGBT-supportive policies as dependent variable. *LGBT_pol* is a dummy variable equals to 1 for firms adopting LGBT-supportive policies toward its LGBT employee and their domestic partners, and zero otherwise. *Republican* represents dummy variable equals to 1 for firms in Republican-leaning states. *DC* represents firms' social connectedness measured by degree centrality. *EC* is firms' social connectedness measured by eigenvector centrality. *IC* is firms' social connectedness measured by information centrality. *Board_size* represents the natural logarithm of the total number of directors on the board. *%indep_dir* represents the number of independent directors divided by board size. *Avg_age* represents the natural logarithm of directors' average age. *FCF_to_assets* is free cash flow divided by total assets. *Sales* is natural logarithm of annual sales. *EBIT_to_assets* is firms' earnings before interest, income tax, depreciation, and amortization divided by total assets. Tobins*Q* is firms' market value of equity divided by book value of equity. *%female_dir* represents the number of female directors divided by board size. *Leverage* is total debt divided by total assets. *Investment* is capital expenditure divided by total assets. *CSR* is the total CSR strengths minus the concerns as reported by the KLD database excluding LGBT items.

Abbreviations: CSR, corporate social responsibility; DC, degree centrality; EBIT, earnings before interest and taxes; EC, eigenvector centrality; FCF, free cash flow; IC, information centrality; LGBT+, lesbian, gay, bisexual, transgender; SCI, Social Connectedness Index; Year FE, Year Fixed effects; Industry FE, Industry Fixed effects.

*$p < 0.1$.
**$p < 0.05$.
***$p < 0.01$.

economic conditions, is not supported. Instead, we find that, during economic downturns when governance is tightened and resources are scarce, firms tend to relax their adoption of such policies. This implies that firms may strategically use sexual diversity policies as a form of window dressing during more favorable times. Additionally, we find that a firm's geographic location in states with Republican majorities are less likely to adopt sexual diversity corporate policies. This suggests the existence of political influence on corporate decisions.

Our findings are significant for several reasons. First, they shed light on how external social influences can shape corporate decisions relating to sexual diversity policies. Second, we provide evidence that managers may intentionally use these policies for personal gain, which is consistent with the exploitation of agency benefits when management tends to act opportunistically, prioritizing their personal interests over those of their stakeholders (Jensen & Meckling, 1976).

Future research could explore the compensation and reputational effects, as well as other benefits, that accrue to managers after the adoption of sexual diversity policies. Event studies examining the announcement effects of sexual diversity policies could determine whether such policies are adopted genuinely for inclusivity, or primarily for publicity purposes. These are important remaining questions left for further investigation in subsequent studies. Finally, alternative

inclusive policies data with longer data horizon could be explored and utilized to overcome the KLD database's limitations in the dated and short time span of the data.

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