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Diversity in the Boardroom: A Systematic and Interdisciplinary Review of the Literature

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Boston — Delft

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Diversity in the Boardroom: A Systematic and Interdisciplinary Review of the Literature

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ABSTRACT

After several decades of male Caucasian dominance, the composition of boards of directors has recently changed. Various factors, such as social pressure, the evolution of corporate law and good governance codes, have contributed to increase board (mostly, but not only) gender diversity. The growing prevalence of more diverse boards and the availability of data on directors' demographics encouraged corporate governance scholars to investigate the antecedents and the consequences of board diversity. Early studies developed around the idea that directors' diversity increases board experiences and perspectives, and so positively influences board effectiveness and corporate outcomes. The empirical evidence collected on board diversity's impact on board and company results shows, however, only partial or mixed findings. Thus, the goal of this systematic and interdisciplinary literature review on board diversity is to understand the

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characteristics of previous studies and to summarize their main results. Our analysis identifies existing gaps, presents major theoretical and methodological barriers, and highlights future avenues to further advance research on board diversity.

1

Introduction

There has been increasing research activity on board diversity in the last two decades, with a peak in more recent years, which accumulated important theoretical insights and empirical evidence on its antecedents and consequences (e.g., Harrison and Klein, 2007; Lau and Murnighan, 1998; Milliken and Martins, 1996; Williams and O'Reilly, 1998).

The increased scholarly attention went hand in hand with the debate on the assumed or intended benefits associated with board diversity that stimulated policy-makers to issue regulations and good governance codes' recommendations encouraging more diverse boards of directors. For instance, several European countries have increasingly issued quota laws promoting board gender diversity in the last decades, and the recent EU Directive 2022/2381 mandates member States to implement regulations favoring higher gender balance on listed companies' corporate boards.¹ The evolution of corporate governance regulation has been sustained by social movements aimed at promoting gender diversity and equality in the boardroom (Geletkanycz, 2020), while other dimensions of diversity

¹The EU Directive (2022/2381), formally adopted in November 2022, implements quotas on board seats, mandating for listed companies to have at least 40% of the under-represented gender among non-executive directors or 33% among all directors by the end of June 2026.

(e.g., nationality, race and age) have stimulated a lively debate among practitioners and academics across the globe.

Building on theoretical frameworks used to investigate group-level diversity, scholars and practitioners promoted board diversity based on the idea that higher diversity increases the pool of experiences and perspectives represented in the boardroom. A wide variety of skills and competencies may improve the board's ability to perform its monitoring and services roles (e.g., Minichilli *et al.*, 2009) and may positively affect firm performance (e.g., Post and Byron, 2015). Despite this logic, the empirical evidence on the impact of board diversity on board tasks or firm outcomes is partial and inconclusive (e.g., Johnson *et al.*, 2013; Kirsch, 2018; Kumar and Zattoni, 2016; Post and Byron, 2015). These mixed results suggest that board diversity is a double-edged sword producing both positive and negative effects (e.g., Milliken and Martins, 1996; Tasheva and Hillman, 2019).

In light of this mixed evidence, we aim to address several related questions concerning what board diversity is, what its drivers are, and which impact it has on board and firm outcomes. In sum, what do we really know about board diversity's semantics, antecedents and consequences? To take stock of the knowledge accumulated on this fascinating and complex topic, we did a systematic literature review. Previous reviews focus on a specific attribute of board diversity, mostly gender diversity, by analyzing its antecedents and its effects on board or firm outcomes (e.g., Kirsch, 2018; Terjesen *et al.*, 2009). However, focusing only on one dimension may imply biases (Adams *et al.*, 2018), as it leaves relatively unexplored other potentially relevant dimensions (e.g., Johnson *et al.*, 2013; Tasheva and Hillman, 2019). So, departing from this tradition, this work analyses board diversity as a multidimensional construct.

Our main goal is to provide reflections on the drivers and the consequences of more diverse boards. In particular, we aim to shed light on: (1) the meaning of "diversity"; (2) the methods and measures used to operationalize it; (3) the drivers promoting it; (4) its main consequences on board and firm outcomes; and (5) the relationships it moderates.

Our systematic and interdisciplinary literature review synthesizes the most relevant studies on board diversity, highlighting major results and research gaps. Following the structured approach of previous literature reviews (e.g., Cuomo *et al.*, 2016; Zattoni *et al.*, 2020), we selected empirical studies on board diversity published in accounting, business, finance, management, and organization journals. In particular, we focus on articles published in the highest ranked journals (i.e., the ones ranked as 4 and 4*) in the ABS/AJG journal list. We also include *Corporate Governance: An International Review (CGIR)*, which is currently ranked as 3, as it is the premier journal on corporate governance research and the outlet where a significant number of studies on board diversity have been published.

Our findings indicate that research interest in board diversity has grown enormously over time, reaching a peak in the last decade. Empirical studies primarily utilized agency and socio-psychological theories to examine the impact of board diversity on several board and firm outcomes. They typically employed quantitative research designs to analyze the effects of board diversity in companies listed in a specific country, usually the US or the UK. They often considered diversity in terms of a single type (mainly gender) and measured it with one or two proxies (such as a dummy variable, number, or proportion of female directors) using archival data.

Our interdisciplinary review makes three contributions to the literature on board diversity. First, it suggests multiple ways to enhance and expand the theoretical frameworks. Second, it identifies key methodological issues and proposes solutions to address them. Finally, it highlights several concerns regarding the operationalization of the diversity variable and outlines methods to resolve them.

2

From Group to Board Diversity

2.1 Group Diversity

Defining diversity is challenging since diversity is a complex and broad concept open to different interpretations (Williams and O'Reilly, 1998). Many scholars have tried to identify a precise meaning of diversity. One of the most common definitions has been proposed by Jackson *et al.* (2003, p. 802), who defined diversity as “*the distribution of personal attributes among interdependent members of a work unit*”.

Drawing on this definition, Harrison and Klein (2007) argue that a group, or a work unit, is not diverse *per se*, but varies with respect to one or more specific attributes of its members. In other words, diversity is a compositional and attribute-specific construct. They also underline that diversity may have three different meanings, i.e., (1) variety, (2) separation, and (3) disparity. Variety indicates differences in information, knowledge, and experiences that originated from the different backgrounds and industry experiences of group members. Separation - also called *horizontal diversity* - identifies differences in opinions, values, attitudes, and beliefs among members of the same group or work unit that may create disagreements and dissimilarity. Finally, disparity - also called *vertical diversity* - identifies differences in status and resources

that produce an unequal distribution of wealth, prestige, or power among group members.

Another useful classification distinguishes surface-level and deep-level diversity (Harrison *et al.*, 1998; Milliken and Martins, 1996). The former (also called demographic diversity) refers to differences based on observable and visible traits concerning demographic attributes such as gender, age, or race. The latter (called attitudinal diversity) refers to less visible features such as values, beliefs, and attitudes.

Building on the definition of diversity as variety, Tasheva and Hillman (2019) argue that diversity is a multifaceted construct, representing different sources and levels of analysis. Specifically, they identify three sources of diversity which are: (1) human capital, (2) social capital, and (3) demographic diversity. Human capital diversity refers to the variety in the team members' skills, knowledge, and expertise. Social capital refers to the resources and the opportunities available through team members' networks of relationships. Demographic diversity indicates the heterogeneity in the observable attributes of team members, such as age, race, or gender. Tasheva and Hillman (2019) also suggest that these three sources of diversity interact with two different levels of analysis i.e., the personal range and the team diversity. Specifically, they argued that diversity not only refers to differences among group members, but also includes the variety of human capital, social capital, and demographic heterogeneity within a single person. For example, an individual with a degree in history and work experience in sales, marketing, and finance has a higher personal range than an individual with a degree and work experience in finance. They claim that the personal range interacts with team diversity and influences team outcomes.

A considerable number of studies have analyzed if and how these different interpretations of diversity may create positive or negative effects on group outcomes (e.g., Milliken and Martins, 1996; Williams and O'Reilly, 1998). Scholars claiming that diversity produces positive outcomes support their argument by drawing on the information processing theory. Specifically, they argue that higher group diversity contributes to access to a richer pool of information and knowledge. With wide perspectives and more comprehensive information, a diverse group is more likely to reach higher quality decisions (e.g., Jackson

et al., 1995; Milliken and Martins, 1996). However, other scholars underline that diversity may also produce negative outcomes. According to social identity and social categorization theories, people tend to identify with individuals they perceive to be more similar. Hence, demographic attributes, human capital, status, or networks may be used to infer similarities, or differences, and so to categorize similar individuals as “ingroup members” and dissimilar individuals as “outgroup members”. This categorization induces group members to identify subgroups based on one or more of their attributes (Lau and Murnighan, 1998). In such a case, higher group diversity may give rise to sub-groups based on hypothetical dividing lines (called faultlines). The presence of faultlines may create disagreements, relationship conflicts, and team functioning problems (Williams and O’Reilly, 1998; Thatcher and Patel, 2012), which may harm group effectiveness.

Taking together its positive and negative effects, the literature suggests that group diversity might be seen as a double-edged sword. On the one side, group diversity creates benefits, as the presence of wide experiences and perspectives in the team can promote better decision-making processes. On the other side, group diversity creates costs by producing frictions, reducing members’ engagement and their identification with the team (e.g., Milliken and Martins, 1996). Understanding when and how the advantages of diversity overcome its disadvantages is still a crucial and open question for the literature.

2.2 Board Composition and Diversity

Boards of directors are special groups. Forbes and Milliken (1999, p. 493) define them as “*large, elite and episodic decision-making groups that face complex tasks pertaining to strategic-issue processing*”. Boards of directors are groups of people who have the responsibility to monitor top managers and make complex strategic decisions (Judge and Talaulicar, 2017). In performing monitoring and service roles, boards of directors need to collect and analyze information concerning the company and its environment. Their output is entirely cognitive. Directors interpret and understand information thanks to the knowledge and competencies

accumulated over time and related to their talents, backgrounds, experiences, networks, and connections (Johnson *et al.*, 2013; Rindova, 1999). As information is a crucial ingredient of the board decision-making process, it is particularly relevant to analyze if and how board composition may positively influence the quality of board information processing, decisions, and, as a consequence, corporate outcomes.

Building on these arguments, several corporate governance studies have analyzed the influence of board size and diversity on various firm results. For example, Pfeffer and Salancik (1978) develop the resource dependence theory, which argues that organizations are greatly dependent on the external environment. Building on this theory, they underline that boards may contribute to managing this external dependence by leveraging directors' strong and well-established networks. As a result, they claim that larger boards may better perform their service role, as they rely on larger networks.

In parallel, Fama and Jensen (1983) argue that outside (or non-executive) directors may positively influence the board monitoring role. Building on agency theory, they suggest that outside directors are more likely than inside (or executive) directors to carry out their monitoring role, as the value of their human capital and reputation depends on their performance as board members. As a result, a board that is highly independent of the CEO and the top management team would be particularly effective in performing board monitoring.

Another stream of research analyzed the direct effect of board members' demographic attributes (e.g., gender or age), human (e.g., competence or skills), and social (e.g., ties or networks) capital on firm outcomes (Johnson *et al.*, 2013). Those studies are based on the idea that directors' demographic traits and human and/or social capital may be used to infer board members' beliefs, behaviors, and information (e.g., Hambrick and Mason, 1984; Pfeffer, 1983). Johnson *et al.* (2013) investigate how various types of diversity may influence the pool of information that a board may use. Expertise diversity encompasses a broad range of competencies and skills. This includes industry expertise which deepens a director's understanding of specific sectors. It also involves prior experience as CEO in other companies or as director

in other boards, which aids in developing organization-specific expertise and relationships with several stakeholders. Financial experience in specific activities such as M&As and CEO succession, as well as contemporary aspects like digitalization or compliance with ESG and sustainability regulations, contribute to the diverse expertise within the board. Additionally, diversity in terms of relationships and networks can involve directors' ties to other firms - in the form of directors' membership in other boards - and personal relationships with company managers (e.g., friendships and business relationship with buyers or suppliers, consultants, or lawyers), or social standing such as status, prestige, stigma, and reputation in the director market.

In recent years, a growing number of empirical studies have focused on board gender diversity, exploring the drivers of board gender diversity and its potential effects on board and firm results (Adams, 2016; Adams and Ferreira, 2009; Geletkanycz, 2020; Ferrari *et al.*, 2022). These studies have been analyzed by a number of systematic reviews (see for example Byron and Post, 2016; Kirsch, 2018; Gabaldon *et al.*, 2016; Terjesen *et al.*, 2009; Yao, 2023).

Despite the soundness of their theoretical frameworks, previous empirical studies on the influence of (1) board composition (e.g., size and independence) (e.g., Dalton *et al.*, 1998, 1999; Hermalin and Weisbach, 2003), (2) demographic, human and social capital (e.g., Johnson *et al.*, 2013), and (3) board gender diversity on several firm outcomes have produced mixed and inconclusive results. Our systematic interdisciplinary literature review focuses on board diversity literature with the aim of analyzing the theoretical frameworks, the research methods, and the results of previous studies. Our main goal is to take stock of the accumulated knowledge, highlight open or unaddressed issues, and unveil new avenues of research.

3

Governance Studies on Board Diversity

3.1 Selection of Previous Empirical Studies

This review aims to examine peer-reviewed empirical studies on board diversity using an interdisciplinary perspective. For this purpose, we collected articles published in the highest-ranked and reputed journals. Specifically, we selected journals classified as 4 and 4* in the ABS/AJG journal list. We also included *Corporate Governance: An International Review (CGIR)*, which is currently ranked as 3 in the ABS/AJG journal list because it is both the premier journal in the corporate governance field and an outlet that published many relevant articles on the topic.

Following previous literature reviews (e.g., Pugliese *et al.*, 2009; Zattoni *et al.*, 2020), we searched academic articles in the electronic database Business Source Ultimate. As keywords, we used the terms “board” and “diversity” or “heter*” in combination with several specific terms indicating demographic diversity (i.e., “gender”, “age”, “race”, “ethnic*”, “nationality”), human capital diversity (i.e., “education”, “tenure”, “background”, “exper*”, “human capital”, “relig*”), or social capital diversity (i.e., “directors’ ties”, “personal relationships”, “social standing”, “interlock”) to identify all potentially relevant articles on board diversity (Milliken and Martins, 1996). Initially, we collected 830

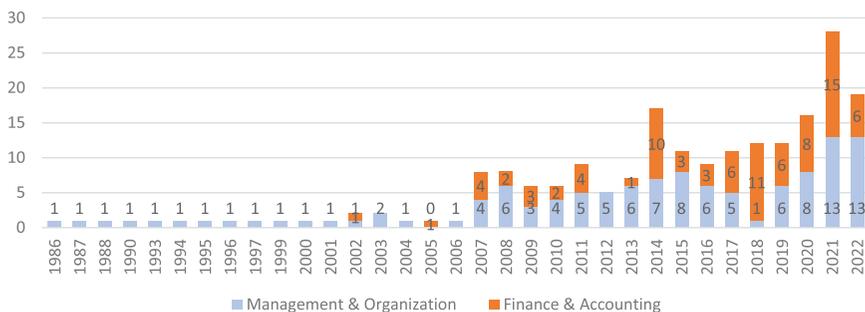


Figure 3.1: Number of papers published in each year by field.²

publications matching our research strategy. From this initial sample, we deleted publications different from journal articles (i.e., book reviews, call for papers, business articles). We also excluded conceptual papers, literature reviews, and empirical studies that did not focus on board diversity. As a result, we arrived at a final sample of 203 papers. This reduction guaranteed that only empirical research directly relevant to board diversity was included in the analysis.

3.2 Main Characteristics of the Sample

Our final sample includes 203 empirical studies on board diversity published between 1986 and 2022 (see Table 3.1). Most (70%) of those papers were published after 2007, and about one-third (31%) between 2020 and 2022 (see Figure 3.1). This increasing trend of scholarly attention goes in parallel with the introduction of quota laws in many European countries and the diffusion of good corporate governance codes’ recommendations encouraging board diversity. These events promoted an increasing diversity in the boardroom and contributed to the lively discussion on this topic (Zattoni *et al.*, 2023).

Most papers (91) have been published in management and organization journals. Among them, the Strategic Management Journal (19 papers) and the British Journal of Management (19 papers) lead, followed by the Academy of Management Journal (18 papers). Among

²Papers published in CGIR have been classified according to the field of the first author.

Table 3.1: Number of relevant articles in the selected journals

Journal Name	Abbr.	ABS Ranking	# Papers
Management & Organizations Journals			
<i>General Management</i>			
Academy of Management Journal	AOM	4*	18
Administrative Science Quarterly	ASQ	4*	8
Journal of Management	JOM	4*	3
Management Science	MANSCI	4*	7
British Journal of Management	BJM	4	19
Business Ethics Quarterly	BEQ	4	1
Journal of Management Studies	JOMS	4	4
<i>Organization Studies</i>			
Organization Science	ORSCI	4*	7
Organization Studies	OS	4	1
Leadership Quarterly	LQ	4	3
<i>Strategy</i>			
Strategic Management Journal	SMJ	4*	19
<i>International Business</i>			
Journal of World Business	JWB	4	1
Finance and Accounting Journals			
<i>Finance</i>			
Journal of Financial Economics	JFE	4*	5
Journal of Corporate Finance	JCF	4	27
Journal of Financial Quantitative Analysis	JFQA	4	6
<i>Accounting</i>			
Accounting Review	TAR	4*	7
Journal of Accounting and Economics	JAE	4*	7
Contemporary Accounting Research	CAR	4	8
Review of Accounting Studies	RAST	4	3
Interdisciplinary Journals			
Corporate Governance: An International Review*	CGIR	3	49
Total			203

accounting and finance journals, the Journal of Corporate Finance is the leading journal (27 papers), followed by Contemporary Accounting Research (8 papers). Corporate Governance: An International Review is the journal with the largest number of studies on the topic (49 papers), written by scholars from various disciplinary domains (Table 3.1).

Most previous studies (83%) focus on the consequences of board diversity, i.e., they use board diversity as independent variable (Table 3.2).

Table 3.2: Descriptive statistics

	N.	%
Diversity as		
Independent variable	168	82.76%
Dependent variable	28	13.79%
Mediating or moderating variable	13	7.07%
Main research topic		
Firm performance	68	33.50%
Financial reporting quality	29	14.29%
Strategy	22	10.84%
Innovation	10	4.93%
Corporate governance	19	9.36%
Board	67	33.00%
<i>Board composition and structure</i>	43	21.18%
<i>Board roles or task performance</i>	16	7.88%
<i>Board processes</i>	5	2.46%
Compensation	15	7.39%
CSR or Sustainability	9	4.43%
Other	14	6.90%
Total number of articles	203	

Note: The percentages reported on the table above are calculated using the number of papers published in each category (i.e., 184). In some cases (e.g., main research topic), it is possible to code one study in more than one category (e.g., the study investigates more than one dependent variable) and so the total is higher than the total number of papers.

While the most investigated dependent variable is firm performance (34% of the papers), other popular research questions concern the effect of board diversity on board composition or board structure (22% of the papers), corporate strategy and innovation (16%), and financial reporting quality (14%). Interestingly, few papers investigate the relationship between board diversity and board tasks (8%) or board processes (2%). Still few papers (4%) analyze the effect of board diversity on company CSR and sustainability. A limited number of papers (14%) examine the drivers of board diversity (i.e., used board diversity as a dependent variable), and even fewer (7%) considered board diversity as a moderator or a mediator of the main relationship.

Using the definition of diversity provided by Harrison and Klein (2007), we notice that almost all papers (90%) view diversity as variety, while only a few of them investigate diversity as separation (6%) or disparity (8%). Based on the typology of diversity provided by Johnson *et al.* (2013), most papers study the directors' surface-level demographic diversity. In particular, most of the studies (53%) examine gender diversity, and a significantly lower number focus on diversity in terms of age (15%), education (12%), ethnicity and race (13%), and nationality (8%). Human capital diversity has been investigated quite extensively as well (52% of the papers in the sample). Specifically, previous articles focus on directors' professional diversity (18% of the sample), functional diversity (19%), industry expertise (15%) and tenure (14%). Finally, several studies (27%) explore the social capital diversity of boards through directors' interlocks, ties, social connections, or relationships (Table 3.3).

Most of the studies (74%) focus on samples from the US or the UK. However, more recently, a considerable number of studies investigate board diversity in other countries. For example, in the last three years of our sample (2020–2022), more than 20 papers (11%) analyze board diversity in other countries. Almost all studies (95%) test their research questions using a sample of public firms, and only a few papers (11%) explore board diversity in a private company's context (Table 3.4). This is the result of both the evolution of regulations and good governance codes' recommendations – which promoted a more diverse board composition mostly or only in listed companies – and of the availability of detailed corporate governance information regarding listed companies' boards of directors. The more homogeneous composition and the difficulty in finding granular information for private companies' directors might explain the lack of a significant number of papers on board diversity in unlisted companies.

Board diversity has been analyzed using various theoretical frameworks. Agency theory and social-psychological theories are the two most common theoretical lenses (with 25% and 27% of the papers, respectively). Agency theory has been mostly employed by finance and accounting studies and is particularly common in early studies. This

Table 3.3: Descriptive statistics on diversity's variable

	No	%
<i>Definition of diversity:</i>		
As variety	182	89.66%
As disparity	17	8.37%
As separation	13	6.40%
<i>Diversity in terms of:</i>		
Gender	107	52.71%
Age	30	14.78%
Education	24	11.82%
Ethnic/race	27	13.30%
Nationality	16	7.88%
Tenure	29	14.78%
<i>Human capital</i>		
Professional Expertise	36	17.73%
Functional Expertise	38	18.72%
Industry Expertise	31	15.27%
<i>Social capital</i>		
Interlocking/social ties/relationships	54	26.60%
<i>Operationalization of diversity</i>		
Number of operationalizations	316	
Number	58	28.57%
Dummy	101	49.75%
Proportion	87	42.86%
Heterogeneity	35	17.24%
Other	35	17.24%
Total number of articles	203	

theory provides the theoretical foundation for the monitoring function of the board. Diverse boards —particularly in terms of gender, experience, and background—are expected to enhance monitoring by improving the board's overall information systems (Carpenter and Westphal, 2001; Hillman and Dalziel, 2003). Socio-psychological theories are the most adopted by management and organization articles. Social identity theory and social categorization theory, both key components of socio-psychological approaches, explain how individuals categorize themselves and others into social groups, often leading to in-group and

Table 3.4: Descriptive statistics on sample and theories

	Number	%
Countries		
Liberal market economies	149	73.40%
Coordinated market economies	31	15.27%
Emerging economies	17	8.37%
Transition economies	10	4.93%
Global representation	14	6.90%
Sample		
Public companies	192	94.58%
Private companies	23	11.33%
Theoretical background		
Agency theory	62	24.60%
Social Psychology	69	27.38%
Resource dependence	28	11.11%
Institutional theory	14	5.56%
Human capital	17	6.75%
Critical Mass or Tokenism	15	5.95%
Upper Echelons	11	4.37%
Ethics or glass ceiling	8	3.17%
Stakeholder theory	6	2.38%
Other	22	8.73%
No theory (or implicit)	32	

Note: The percentages reported on the table above are calculated using the number of papers published in each category (i.e., 203). In some cases (e.g., companies), it is possible to code more than one category (e.g., the sample includes both private and public companies) and so the total is higher than the total number of papers.

out-group biases. In the context of board diversity, these theories suggest that when board members share similar social characteristics—such as gender, race, or professional background—they are more likely to form an “in-group”, fostering cohesion and trust among them. However, this can also result in out-group biases, where board members who are perceived as different may face subtle or overt exclusion. Social categorization theory and social identity theory further argues that these in-group/out-group dynamics can influence decision-making processes, board performance and how board member interact by failing

to include diverse perspectives and promoting groupthink. Other theoretical frameworks used to examine board diversity include resource dependence theory (11%), human capital theory (7%), and institutional theory (6%), though they are less frequently applied.

In the next sections, we present and discuss the main methods and measures used to operationalize board diversity, as well as the main results of the papers we have collected and scrutinized.

4

Methods to Investigate Board Diversity

4.1 Board Diversity's Operationalization

Scholars have used different measures to operationalize board diversity. The two most common are (1) a dummy variable that indicates the presence of a specific attribute defining diversity (used in 50% of the papers in our sample), and (2) the proportion which is calculated as the number of directors having a certain attribute over the total number of the directors (used in 43% of the papers in our sample).

The first measure is particularly used in earlier studies. In one of the first papers, Kesner (1988) use binary classifications to code gender diversity and diversity in terms of directors' occupations. In a later paper, Brammer *et al.* (2009) investigate the link between corporate reputation and gender board diversity in a sample of UK companies using a dummy variable to identify the presence of women on the board. At that time boards were quite homogenous and very few companies had more than one female director. Hence, the use of the dummy variable indicating the presence of a specific attribute was particularly suitable to empirically test the effect of board diversity on a specific outcome. However, over time the use of the dummy variable declines as it serves

more as a proxy of the presence of a specific attribute rather than a measure of its variety.

The second diversity measure used is the proportion of directors having a certain attribute. In one of the earlier studies, Erhardt *et al.* (2003) examine the relationship between board demographic diversity and firm financial performance in a sample of US companies. They measure the representation of women and minorities (African, Hispanic, Asian and native Americans) on American boards by calculating the percentage of minority and female directors at two points in time (1997 and 1998). Using a sample of Norwegian companies, Nielsen and Huse (2010) investigate the effect of the proportion of women directors on board processes and tasks. Bao *et al.* (2014) examine whether the percentage of women on boards and on top management teams is associated with the risk of lawsuits in a sample of US retail firms. The use of percentages as a measure of diversity is also common in studies that focus on other types of diversity such as expertise, education and networks (Beckman *et al.*, 2014; Burns *et al.*, 2021; Ortiz-de-Mandojana *et al.*, 2012; Rhee and Lee, 2008; Van Veen and Elbertsen, 2008; Sundaramurthy *et al.*, 2014; Tian *et al.*, 2011).

A third measure used to operationalize diversity is the absolute number of directors having a specific attribute of diversity. Specifically, 29% of the papers in our sample use the absolute number to proxy diversity. In most of these papers, this measure is supported by socio-psychological theories. For example, the critical mass theory argues that a member of a minority will be more active as the number of minority directors increases and a critical mass is reached. Using this theory, Schwartz-Ziv (2017) show that boards with at least three women are more active at board meetings than those with a lower representation. Consistent with the critical mass theory, Liu *et al.* (2014) find that – in a sample of Chinese listed firms from 1999 to 2011 – boards with three or more female directors have a stronger impact on firm performance than boards with two or fewer female directors. In a sample of listed banks headquartered in 21 EU countries, Arnaboldi *et al.* (2021) show that female directors are more influential in reducing the frequency of misconduct fines when they reach a critical mass and are supported by women in leadership roles. Atif *et al.* (2021) find that boards with two or

more women have a significant impact on renewable energy consumption in a sample of US companies between 2008–2016. Combined with the use of the critical mass theory, this operationalization of board diversity has been applied also to measure other types of diversity. For example, Guest (2019) employs a dummy variable – equal to one if the board reaches a minimum number of two minority directors and zero otherwise – to investigate whether board ethnic diversity is associated with stronger board monitoring outcomes.

To measure the concept of variety at the group level, some studies use heterogeneity indexes (17% of the papers in our sample). One of the most used indexes is Blau's (1977) heterogeneity index. This has been frequently employed as a measure of diversity for categorical variables, where the measure is not skewed in one category (Harrison and Sin, 2006). A higher value on the index indicates diversity, while a lower value indicates homogeneity. Specifically, a value equal to or close to zero represents high homogeneity, whereas a value equal to or close to 1 indicates high diversity. Miller and Triana (2009) use the Blau index to measure demographic diversity in the boardroom. Sidhu *et al.* (2021) employ the Blau index to measure board gender diversity. Chen *et al.* (2016) use the Blau index to study the association between board ethnic diversity and the number and size of firms' acquisitions. Firoozi and Keddie (2022) use Blau index to investigate board geographical diversity's impact on CSR.

Interestingly, Adams *et al.* (2018) apply the Blau's index to measure diversity within a single individual (i.e., personal range). They argue that directors are not one-dimensional, but have a set of skills. They underline that there is a large difference between diverse boards and boards with a substantial concentration of skills: the former nominate directors with very different skills, while the latter nominate directors with specific skills. Their study shows that greater board skill diversity is not associated with higher corporate performance, measured by the Tobin's Q, as a lack of common ground in skill sets may undermine board effectiveness.

Other studies create indices, building on the idea that diversity is a composite construct. Bernile *et al.* (2018) create an index based on six dimensions – which include both demographic and cognitive

factors – to study the effect of board diversity on corporate risk and firm performance. Their results show that greater board diversity, measured through this composite index, is associated with lower firm risk. Interestingly, breaking down the index by its individual components or by component type (cognitive or demographic) reveals that no single component of diversity alone drives the relation between the diversity index and firm risk. This result suggests that the board’s effectiveness depends on the combined effect of different dimensions of board diversity.

Recently, some papers have started to use multiple measures of board diversity. For instance, Nadeem (2020) employs three measures of board gender diversity – i.e., the percentage of women on the board, a dummy variable (that takes the value of 1 if the board has at least one woman, and 0 otherwise), and the Blau Index – to examine the impact of board gender diversity on voluntary intellectual capital disclosure in Chinese IPOs. Similarly, Kim *et al.* (2020) use three measures of female representation – i.e., the dummy variable indicating the presence of at least one female director on the board, the number of female directors, and the proportion of female directors on the board – to study the influence of female board representation on CEO turnover and firm value in Russia. Finally, some studies use alternative measures as a robustness check, ensuring that the findings are not dependent on a single measure and providing a more comprehensive understanding of the relationship between board diversity and various firm outcomes.

4.2 Board Diversity as an Endogenous Variable

As board diversity represents a choice (see also Section 5), the empirical studies focusing on board diversity are likely to be affected by endogeneity problems which might lead to biased results. The presence of endogeneity poses a significant challenge when it comes to defining models and establishing causal relationships (e.g., Antonakis *et al.*, 2014; Certo *et al.*, 2016). In the realm of board diversity literature, this issue becomes particularly pronounced due to constraints associated with data and collection techniques, the operationalization and measurement of variables, and the specification of models. Our investigation focuses

on addressing this crucial issue, seeking to determine the degree to which current research acknowledges threats of endogeneity, and the methods utilized to mitigate them. In doing so, we rely on the framework proposed by Wooldridge (2010), which identifies four causes of endogeneity: omitted variables, reverse causality, measurement errors, and selection.

Table 4.1 presents the four causes of endogeneity, uniform examples for each cause and the most employed methods to tackle each of them. This approach is taken due to the observation that numerous studies often focus solely on the method used to correct endogeneity without explicitly addressing its specific causes. For instance, researchers might mention addressing endogeneity through the application of Propensity Score Matching (PSM) without specifying the cause such as endogeneity due to selection. Table 4.1 helps to better grasp the practical application of these methods. It highlights the importance of identifying the root cause of endogeneity to select the most appropriate corrective method, ultimately leading to more robust and accurate research findings.

Table 4.1: Endogeneity in the studies about board diversity

Type	Omitted Variables	Reverse Causality or Simultaneity	Measurement Errors	Selection
Cause	A variable correlated with diversity and residual is missing	The association between diversity and the dependent variable is reciprocal	Systematic error of diversity or dependent variable. This is correlated with the residual	Two ways: (1) selection into a sample is not random and more common to diversity studies (2) selection of diversity is not randomly assigned
Example	Females are chosen due to education which affects the residual and education is omitted	Female representation in boards (x) causes a reduction in corporate risk (y)	Error in measuring female representation (in database or questionnaire) results in an errored female variable which is correlated with corporate risk	Firms that choose females are different from firms that don't (size, age, industry, performance, etc.)
Correction	Add control variables, fixed effects, instrumental variable (IV) (two-stage least squares or 2SLS); three-stage least squares or 3SLS; maximum likelihood or ML; generalized method of moments or GMM)	IV, lagged diversity measures, dynamic panel techniques (GMM or Arellano-Bond), exogenous events (quasi-experiments or exogenous events)	Latent variable method (SEM), IV, common method variance (CMV)	Heckman selection correction (inverse Mill's ratio), difference in differences, regression discontinuity, synthetic control groups (control group by matching, coarsened exact matching, Propensity Score Matching (PSM), entropy matching

5

The Antecedents of Board Diversity

A key research question in the literature concerns the investigation of the drivers or antecedents of board diversity. Within our sample, only a limited number of studies – mostly published in management and organization journals – address the determinants of board diversity.

5.1 Individual- and Company-Level Antecedents

At the level of board member characteristics, an earlier study by Hillman *et al.* (2002) reports structural differences in occupational background, education, and patterns of board affiliation among white male, white female, African-American female and African-American male directors who serve on Fortune 1000 boards. Martínez-García *et al.* (2022) find that, after the introduction of quota laws, female directors have more human capital in terms of executive experiences, non-executive backgrounds, education and international experience compared to their pre-law counterparts. However, these new women directors generally possess less human capital than their male counterparts. Kaczmarek *et al.* (2012) report that – in a panel of FTSE350 companies from 1999 to 2008 – the increasing presence of female or non-British directors on the nomination committees has a positive impact on the level of board

gender and nationality diversity, respectively. This result suggests that demographic characteristics are correlated with deep-level diversity, or that there are barriers to diversity within boards. In a recent study, Kang *et al.* (2022) show how demographic diversity fosters cognitive diversity, measured by director dissent. They document that directors with different tenure and experience are more likely to dissent individually, and boards with diverse tenure, gender and experience are more likely to dissent as a group.

At the company level, some articles observe firm-specific contingencies that may affect diversity within the boardroom. Focusing on firm performance, Mulcahy and Linehan (2014) find over-representation of women on boards of companies that are precarious. Specifically, they show that – in a sample of companies listed on the UK stock exchange in the years 2004–2006 – gender diversity tends to increase more in companies facing a “big” financial loss than in companies experiencing a “small” loss. Daily and Dalton (2003) find that larger companies with director stock requirements and annual stock awards have greater representation of women and minorities on their boards. Corwin *et al.* (2022) study whether women in leadership positions promote other women. Drawing on the trickle-down effect and the queen bee phenomena, they show that women CEOs are less likely to advocate for the promotion of other women because of the gendered organizational context in which they operate. However, their capacity to challenge traditional gender norms increases together with their managerial discretion. Cannella *et al.* (2015) observe that firm identity (organizational identification) is correlated with observed board heterogeneity.

5.2 Meso- and Macro-Level Antecedents

At the meso-level, research suggests that recruitment practices based on networks may have implications for (gender) diversity within the boardroom given that different genders belong to different networks and that directors’ and CEOs’ networks affect the appointment of directors. Allemand *et al.* (2022) analyze how directors’ and CEOs’ networks impact on the appointment of female board members in a sample of 32,819 newly appointed directors in 17 EU and 2 North

American countries. Their results show that director networks both play an important role in appointing new board members, and may undermine women's access.

At the macro-level, some institutions may be beneficial to dismantle the effects of the good old boys' network and to promote gender diversity. Chang *et al.* (2019) find that threshold effects and social norms (tokenism) may explain the underrepresentation of women and minorities within boards. At the same time, few multi-country studies suggest that several legal, cultural, and social institutions are key drivers of board gender diversity in the country. For example, Grosvold and Brammer (2011) suggest that half of the cross-countries variation of board gender diversity is due to national institutions and that legal and cultural institutions are the most important drivers of female representation in the board. Chizema *et al.* (2015) investigate whether key social institutions shaping gender stereotypes (i.e., the division of labor and roles between genders) influence board gender diversity across countries. Their analysis suggests that female representation in the parliament has a positive impact on board gender diversity, while religiosity (i.e., traditional beliefs and values) has a negative one. Afzali *et al.* (2022) show that firms located in high social capital counties have a higher percentage of women on boards in the US. Moreover, they highlight that these firms are also more likely to achieve a critical mass of female representation, with women more frequently attaining membership on audit, compensation, and nomination committees, as well as serving as chairs of audit and nomination committees, compared to female directors in firms located in low social capital counties.

Iannotta *et al.* (2016) analyze whether and how various country-level institutions in four areas (i.e., regulation, welfare, labor, and culture) influence board gender diversity. Their results – based on a fuzzy set/Qualitative Comparative Analysis of data from 27 EU countries – underline that various national institutions jointly affect board female representation, and that gender quota is not sufficient to promote board gender diversity. Griffin *et al.* (2021) examine the determinants of board gender diversity, and its impact on firm innovation. Their analysis suggests that several national institutions explain female representation on boards: i.e., the presence of regulations or recommendations

promoting gender equity, lower gender gap, higher female participation in the labor market, and more feminine culture (or lower masculine one). Mateos de Cabo *et al.* (2022) examine how country-level gender diversity policies affect women's centrality in corporate networks. Their results show that voluntary measures, like corporate governance codes, positively impact women's "closeness" to other directors, enhancing their access to information. In contrast, binding regulations, such as gender quotas, lead to women becoming key "bridges" between sub-networks, increasing their "betweenness" centrality and giving them greater control over information.

In sum, board diversity literature emphasizes that some variables at firm-level (e.g., size, identity, or performance), at meso-level (e.g., directors' networks), and at macro-level (e.g., formal institutions like corporate and labor law, or informal institutions like culture and religiosity) contribute to explain board diversity (Table 5.1).

Legal and regulatory requirements may mandate or encourage gender diversity on boards through hard and soft law. Multinational corporations may choose a more diverse board to reflect the diversity of their markets and stakeholders. Alternatively, several events may represent opportunities to increase board diversity in job-related and non-job-related dimensions. For example, a global strategy may call for a wider diversity of international experience of directors or new technology (e.g., digitization) may favor the appointment of technological experts to the board. Furthermore, a commitment to the corporation's cultural values may stimulate the creation of a more diverse board.

At the individual level, a diverse industry experience, a wide range of functional expertise, and various educational backgrounds may reflect the corporation's presence in markets, regions, or customers' socio-cultural perspectives. Age diversity may be related to a corporate drive toward innovation and resilience. Stakeholders' pressures or (institutional) shareholder engagement may reflect an increased awareness of widespread perceptions of diversity and inclusion.

Table 5.1: The antecedents of diversity

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Hillman <i>et al.</i>	2002	Women and racial minorities in the boardroom: How do directors differ?	JOM	Female and African-American directors are more likely to come from non-business backgrounds, and are more likely to hold advanced degrees, and join multiple boards at a faster rate than white male directors
Daily and Dalton	2003	Are director equity policies exclusionary?	BEQ	Companies with director stock requirements and annual stock awards have greater representation by women and minorities on their board. Moreover, larger companies are both more likely to have such directors' equity policies and have higher proportions of women and minorities on the board.
Grosvolt and Bammer	2011	National institutional systems as antecedents of female board representation: An empirical study	CGIR	Half of the variation in the presence of women on corporate boards across countries is attributable to national institutional systems. Culturally and legally-oriented institutional systems appear to play the most significant role in shaping board diversity.
Kaczmarek <i>et al.</i>	2012	Antecedents of board composition: The role of nomination committees	CGIR	The presence of females or non-British nationals on the nomination committee is likely to have a positive impact on the level of board gender and nationality diversity, respectively.
Mulcahy and Linehan	2014	Females and precarious board positions: Further evidence of the glass Ceiliff	BJM	Women are more likely to be over-represented on boards of companies that are more precarious.

Continued

Table 5.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Chizema <i>et al.</i>	2015	Women on corporate boards around the world: Triggers and barriers	LQ	The representation of women in other key national institutions, such as in politics, positively affects the appointment of female directors on boards. Social institutions have the potential to alleviate stereotypical attitudes.
Cannella <i>et al.</i>	2015	Family-versus lone-founder-controlled public corporations: Social identity theory and boards of directors	AOM	Distinguishing between family companies involving multiple family members as owners and/or managers and lone-founder companies involving only the founder and no other family members, this study shows how the identity of public company control structures translates into board heterogeneity.
Iannotta <i>et al.</i>	2016	Institutional complementarities and gender diversity on boards: A configurational approach	CGIR	Using fs/QCA, the findings show a specific configuration of country-level conditions that supports the gender diversity on boards. The board gender quota legislation is not a sufficient condition on its own to achieve a higher number of women on boards.
Chang <i>et al.</i>	2019	Diversity thresholds: How social norms, visibility, and scrutiny relate to group composition	AOM	The study shows how social norms and scrutiny affect decisions about adding members of underrepresented populations (e.g., women, racial minorities) to groups.
Griffin <i>et al.</i>	2021	Board gender diversity and corporate innovation: International evidence	JFQA	Boards are more likely to include women in countries with narrower gender gaps, higher female labor market participation, and less masculine cultures. Gender diverse boards are associated with more failure-tolerant and long-term chief executive officer (CEO) incentives, more innovative corporate cultures, and more diverse inventors.
Allemand <i>et al.</i>	2022	Role of old boys' networks and regulatory approaches in selection processes for female directors	BJM	Building on social identity theory and social network theory, the study argues that recruitment practices based on networks prevent women from accessing board positions.

Continued

Table 5.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Martínez-García <i>et al.</i>	2022	Board Gender Diversity Codes, Quotas and Threats of Supranational Legislation: Impact on Director Characteristics and Corporate Outcomes.	BJM	Boards appoint more female directors who possess human capital attributes that will reduce uncertainty and bring necessary resources to firms. The new female directors after quota law tend to have more human capital in terms of executive experience in non-listed firms, and some non-executive backgrounds, education and international experience compared with their pre-law counterparts. However, these new women directors generally possess less human capital than their male counterparts.
Corwin <i>et al.</i>	2022	What's It Like Inside the Hive? Managerial Discretion Drives TMT Gender Diversity of Women-Led Firms	JOM	This study explores whether women in leadership positions promote other women, considering both the trickle-down effect and the queen bee phenomenon. While the trickle-down effect suggests women in power promote other women, the queen bee phenomenon indicates that senior women distance themselves from others. Results show that while the presence of women CEOs negatively relates to the proportion of women on the TMT, this relationship is weakened by CEO
Afzali <i>et al.</i>	2022	Social capital and board gender diversity	CGIR	Firms headquartered in counties with higher levels of social capital have higher percentages of women directors. Moreover, female directors in firms located in high social capital counties are more likely to achieve a critical mass; attain membership of audit, compensation, and/or nomination committees; and serve as chair of audit and nomination
Mateos de Cabo <i>et al.</i>	2022	Shades of Power: Network Links with Gender Quotas and Corporate Governance Codes	CGIR	This study examines how gender diversity promotion strategies affect women's centrality in corporate networks. The study shows that voluntary measures, like corporate governance codes, positively impact women's "closeness" to other directors, enhancing their access to information. In contrast, binding regulations, such as gender quotas, lead to women becoming key "bridges" between sub-networks, increasing their "betweenness" centrality and giving them greater control over information.

We conclude that the limited number of papers on the determinants of board diversity does not permit us to draw solid conclusions. This research area is not yet developed to its full potential and there are still many interesting questions to investigate. For example, it may be relevant to analyze further structural member-, firm-, and context-specific barriers to board diversity. Table 5.1 summarizes the key papers in this area and their main findings.

6

Board Diversity as an Intermediate Variable

6.1 Board Gender Diversity as Moderator

While most previous studies focused on board diversity as an independent or dependent variable, a small group of studies employed board diversity as a moderator, i.e., exploring how it affects the direction and/or the strength of the relation between an independent and a dependent variable (Baron and Kenny, 1986). Very few papers in our sample (13 out of 203) focus on the moderating effect of board diversity. The majority of those papers have been published recently and mainly in management and organization journals.

A set of studies focuses on the moderating effect of board gender diversity, based on the idea that it might influence the strength or the direction of a relationship. In an early paper, Triana *et al.* (2014) examine how board gender diversity, firm performance and the power of women directors interact to influence the firm strategic change. They show that the relationship between gender diversity and firm strategic change is more positive when women on boards have greater power, and the company experiences a high corporate performance. However, this positive relationship becomes negative when firm performance is low, and women directors have greater power. These results indicate that

gender diversity can be a double-edged sword, as it can encourage or impede strategic change depending on firm performance and the power of women on the board.

In another study, Mitra *et al.* (2021) show that female board representation moderates gender differences in shareholder dissent. Specifically, they test a threat-contingency model of shareholder dissent against female director candidates to explain when shareholders will be more or less likely to dissent against female directors. Their results show that: (1) when female board representation is very low, shareholders express less dissent against female than against male directors; and (2) when shareholder value is decreasing, shareholders withdraw their support to women director candidates, showing increasingly more dissent toward women than to men.

In another interesting study, Tuggle *et al.* (2022) examine how the presence of additional underrepresented (i.e., female or black) directors on the board and their status moderates the negative relationship between underrepresented demographic characteristics and the director's participation in board meetings. In more detail, they find that (1) directors with underrepresented demographic characteristics tend not to participate actively in the board meetings, and (2) their participation increases with the number of underrepresented directors and with the presence of a prestigious black and/or female director. The results of this study show that the underrepresented directors relate and positively support one another during the board meeting, so favoring their active participation.

Westphal and Stern (2007) study the influences of board gender and ethnic diversity on the likelihood of being appointed to other boards. They show that directors who provide frequent advice and information to top management, rather than control them, increase their probability of receiving additional board appointments. However, this relationship is moderated by demographic diversity (i.e., being a female director or belonging to an ethnic minority). This means that women directors and ethnic minorities are rewarded less on the directors' labor market for engaging in board advice tasks and they are punished more for engaging in board monitoring tasks than male Caucasian directors. This result provides empirical support to the social theory explaining both the

dynamics between the dominant sub-group and the minority sub-group, and how out/in-group bias influences the behavior of board members.

Zhu (2013) investigates how directors' homogeneity or diversity across five demographic characteristics (i.e., gender, functional background, education affiliation, highest degree, and employment industry) might influence the extent to which group polarization is present on corporate boards. Looking at the acquisition premium of the focal company and the average of all premiums price previously experienced by the directors, the study shows that demographic homogeneity among board members reduces the extent to which the focal premium exceeds (or falls below) the average prior premium experienced by directors. As a consequence, these results suggest that demographic homogeneity reduces group polarization.

6.2 Board (Not Gender) Diversity as Moderator

While board gender diversity is the most employed moderator, other dimensions of diversity have been used for this purpose. For example, a set of papers explores the moderating effect of board experience diversity on a specific relationship (Feng and Xiao, 2022; Pérez-Calero *et al.*, 2019; Veltrop *et al.*, 2017; Zorn *et al.*, 2020). A study by Zorn *et al.* (2020) shows that board experience diversity may significantly influence the relationship between board composition and CEO pay or dismissal. They argue that boards with experienced directors have valuable knowledge to set appropriate compensation practices and to decide about CEO dismissal. Their results show that, when the board is highly experienced, the directors who have been involved in the selection process of the CEO are associated with lower changes in CEO pay and are more likely to dismiss a poorly performing CEO.

Using a sample of Dutch organizations, Veltrop *et al.* (2017) study how directors' financial expertise influences the social status of directors and their attitude to conform with other board members. Moreover, Pérez-Calero *et al.* (2019) analyze how the diversity of prior shared experience of industry contexts between the CEO and the board moderates the relationship between the extensiveness of prior shared experience (PSE) and IPO value. Their results show that extensive prior shared

experience between the CEO and the board is detrimental to IPO valuation, but the industry diversity of the PSE mitigates such negative effects.

Feng and Xiao (2022) underline that directors' academic experience moderates the relationship between new directors and firm risks. Specifically, they show that appointing new directors is associated with higher firm risks in China. This effect is more pronounced for firms with weaker corporate governance mechanisms and is attenuated in the case of higher board demographic diversity (in terms of education, experience, and gender). Specifically, the relationship between a change in the board and firm risks is moderated when the new directors have academic expertise and networks. This study suggests that directors' observable and not observable traits can shape board decision-making, leading to corporate operating volatility and firm risk.

Another set of papers focuses on directors' interlocking and board social capital as moderating variables (Cheng *et al.*, 2021; Omer *et al.*, 2020; Vandebek *et al.*, 2021). Cheng *et al.* (2021) highlight that board interlocks are channels by which firms share information about strategic decisions related to IT investments. Omer *et al.* (2020) show that audit committee connectedness moderates the negative effect of board interlocks on misreporting firms on financial reporting quality.

Finally, another set of papers focuses on the diversity of the interactions among board members. Vandebek *et al.* (2021) show that the relationship between firm performance and CEO dismissal is negatively moderated by social category faultlines, which are hypothetical dividing lines that split the board into multiple sub-groups. This effect is particularly stronger in boards that do not engage in board evaluation and have a greater number of board committees.

Due to the limited number of papers that focus on the moderating effect of board diversity, we can conclude that this stream of research provides interesting avenues for future research.

7

Consequences of Board Diversity on Firm and Board Outcomes

7.1 Board Diversity and Firm Performance: An Ambiguous Relationship

One of the most common research questions in the literature on board diversity refers to its potential impact on firm performance. This research question has been addressed by many studies investigating the effects associated with board gender, expertise, network, and other types of diversity.

A significant part of this literature focuses on the impact of gender diversity on firm performance which is bound on, *inter alia*, institutional characteristics. Adams and Ferreira (2009) and Evgeniou and Vermaelen (2017) highlight that women directors of US companies allocate more effort to monitoring than their male counterparts. At the same time, research also shows that board gender diversity produces a negative effect on shareholder value. For example, Gregory *et al.* (2013) show that, in Anglo-Saxon countries, financial markets react negatively to trades by and appointments of female directors, reducing firm stock returns and reflecting the prevalence of negative stereotypes and skepticism of investors. Eckbo *et al.* (2022) show that the portfolios of firms with all-male boards and at least one female director in 2001 exhibit zero

long run stock return performance. Using a quasi-natural experiment for Italian listed companies, Ferrari *et al.* (2022) show that while quotas result in a new selection of board members with higher education and younger age, they do not negatively impact on firm performance or stock market outcomes. Differently, studies conducted in transition economies (e.g., China, Russia, Indonesia) demonstrate significant positive effects of gender diversity on operating and financial performance (e.g., Herdhayinta *et al.*, 2021; Kim *et al.*, 2020; Liu *et al.*, 2014).

These studies highlight the complexity of the relationship between board diversity and firm performance. Although previous studies confirm the positive effect of board gender diversity on monitoring, they also suggest that the institutional setting matters for the relationship between board gender diversity and corporate performance. In countries with strong shareholder rights, such as the US and the UK, too much board monitoring may produce detrimental effects and decrease shareholder value, whereas in countries with weak shareholder rights, stronger board monitoring may enhance firm value. Also, social movements shape investors' reactions to board gender diversity. Billings *et al.* (2022) demonstrate that, in parallel with the development of the #MeToo movement in the US, investors reacted positively to companies with a history of including women on their boards, while responding negatively to companies that had historically excluded them.

Not only the country, but also the features of the industry might influence such relationship. Studies focusing on the financial industry demonstrate, in fact, that gender diversity is beneficial for banks. Using a sample of listed European banks over the period 2005–2017, Cardillo *et al.* (2021) provide evidence that banks with higher board gender diversity experience have superior performance and lower probability to receive a public bailout. Similarly, Karavitis *et al.* (2021) show that banks' board gender diversity leads to lower loan spreads to firms. Taken together, these studies show that, in the banking industry, increased board monitoring associated with higher female representation is beneficial. This result is in line with studies showing that board diversity reduces corporate risk taking (e.g., Bernile *et al.*, 2018).

Literature reports an overall positive relationship between board expertise diversity and firm performance. This is particularly true in

the case of board-level experience (Feldman and Montgomery, 2015), and accounting and financial expertise (Bédard *et al.*, 2008; Chan and Li, 2008) that were found to increase corporate value. This positive effect is particularly relevant in the banking industry, where diversity related to business expertise supports specialty (e.g., law and accounting experts) and community leadership (e.g., politicians, clergy, academics) appears to significantly improve M&A performance (Hagendorff *et al.*, 2010). However, this stream of research underlines that the relationship between board expertise diversity and firm performance presents a certain level of complexity. In particular, this relationship is not monotonic since, under conditions of decision uncertainty, domain expertise diversity may detract from effective decision-making and so increase the probability of organizational failure (Almandoz and Tilcsik, 2016). Moreover, Schnatterly *et al.* (2021) suggest that expertise “misalignment” has negative implications for firm performance, and so motivates board reconfigurations, which positively affect firm performance. Finally, studies analyzing the effects of academic expertise diversity on firm performance suggest that investors appreciate particularly boards whose directors are either academics with expertise in engineering, science, and medicine, or academics with affiliations with business schools (White *et al.*, 2014).

Literature also shows that the influence of board networks’ diversity on firm value varies under conditions that are not univocal (Grove *et al.*, 2011). For example, Joh and Jung (2018) argue that outside directors with social or business/financial ties (i) have a positive influence on firm performance, since they often have more knowledge, give better advice, and liaise more effectively with other organizations than other directors; (ii) monitor less effectively than other types of directors. Specifically, their study – based on a sample of Korean firms in the period between 1999 and 2006 – suggests that boards with a higher number of outside directors with social or business/financial ties improve corporate performance when a firm faces external control threats, uncertainty, or regulation. However, when the context is characterized by low transparency or high information transaction costs, the relationship between outside directors with social or business/financial ties and firm performance is weaker or negative. Similarly, Schabus

(2022) shows that companies with higher board connections improve the accuracy of management forecasts.

Studies investigating the effects associated with other types of board diversity are less common. Literature indicates that ethnic diversity and genetic-diverse boards increase firm operating performance (Delis *et al.*, 2017; Erhardt *et al.*, 2003). Studies on directors' tenure diversity show mixed findings (Huang and Hilary, 2018; Kim *et al.*, 2014), which can be the result of an inverted U-shaped relationship between board tenure diversity and firm value or accounting performance (Li and Wahid, 2018). Diversity in terms of the age of directors appears to have some positive impact on corporate performance (Berger *et al.*, 2014), even if it does not seem to be a relevant factor for banks (Grove *et al.*, 2011). However, due to the limited literature, it is not possible to draw concrete generalizations or definitive conclusions in these less explored streams of research.

Table 7.1 provides a summary of the studies mentioned above. Overall, studies investigating the impact of board diversity on firm performance yield mostly inconclusive findings. Among the possible reasons that might explain the variance in the results, we focus on (1) the year of publication, (2) the types of diversity, (3) the institutional and/or industrial contexts where relevant research has been conducted, and (4) several issues concerning the method (e.g., research constructs, estimation windows, model specification and statistical analysis employed) (Yang *et al.*, 2019).

Firstly, in our sample, the time of publication is correlated with the sophistication of the method used to address endogeneity and, consequently, with the results of the study. Specifically, as most of the early studies do not address endogeneity in their empirical analysis, we invite scholars to be cautious when interpreting their findings. For instance, incorporating studies that inadequately address endogeneity issues could undermine the reliability of meta-analyses (Antonakis, 2017). Secondly, most of the previous research (113 papers) focused on one specific aspect of diversity, such as demographic, human capital, or social capital. Specifically, demographic diversity was the most commonly explored (65 papers), followed by human capital (33 papers) and social capital (15 papers).

Table 7.1: Board diversity and firm performance

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
<i>Gender diversity</i>				
Adams and Ferreira	2009	Women in the boardroom and their impact on governance and performance	JFE	The average effect of gender diversity on firm performance is negative. This negative effect is driven by companies with fewer takeover defenses.
Gregory <i>et al.</i>	2013	Does the stock market gender stereotype corporate boards? Evidence from the market's reaction to directors' trades	BJM	There is a reduction of firm stock returns when a female director is appointed. This result reflects the prevalence of negative stereotypes and skepticism of investors.
Liu <i>et al.</i>	2014	Do women directors improve firm performance in China?	JCF	The relation between board gender diversity and firm performance is positive in China. Female executive directors have a stronger positive effect on firm performance than female independent directors. Moreover, boards with three or more female directors have a stronger impact on firm performance than boards with two or fewer female directors, consistent with the critical mass theory. Finally, the impact of female directors on firm performance is significant in legal person-controlled firms but insignificant in state-controlled firms.
Evgeniou and Vermaelen	2017	Share buybacks and gender diversity	JCF	Board gender diversity increases the likelihood of buyback announcement, but when there is a higher female representation on the board, the long-term excess returns are significantly lower. These findings imply that gender diversity heightens the likelihood of firms repurchasing stock to cut agency costs associated with free cash flow. However, because gender diversity enhances the quality of public information disclosure, these repurchases are less influenced by market timing.
Bernile <i>et al.</i>	2018	Board diversity, firm risk, and corporate policies	JFE	Greater board diversity leads to lower volatility and better performance. The lower risk level can be attributed primarily to diverse boards implementing more persistent and less risky financial policies.

Continued

Table 7.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Yang <i>et al.</i>	2019	Women directors, firm performance, and firm risk: A causal perspective	LQ	In the Norwegian setting, the mandated female representation has a negative effect on firm performance (both accounting-based measures and market-based measures) and on firm risk.
Kim <i>et al.</i>	2020	Female representation on boards and CEO performance-induced turnover: Evidence from Russia	CGIR	Using a sample of public firms listed on the Moscow Stock Exchange from 2006 to 2015, the results show that female boards increase firm value.
Herdhayinta <i>et al.</i>	2021	Family female directors versus non-family female directors: Effects on firm value and dividend payouts in an extreme institutional environment	BJM	By analyzing boards of directors in Indonesia from 2012 to 2018, the study shows that only non-family female directors significantly enhance firm value and advocate dividend payouts. The results indicate that non-family female directors are more effective than family female directors at monitoring the management and protecting the interests of minority shareholders.
Cardillo <i>et al.</i>	2021	Does gender diversity on banks' boards matter? Evidence from public bailouts	JCF	Banks with more gender-diverse boards are less likely to receive a public bailout and receive a lower amount of bailout funds. Gender diversity is positively related to bank performance, as proxied by ROA and Tobin's Q and with dividend payout ratios.
Karavitis <i>et al.</i>	2021	Gender board diversity and the cost of bank loans	JCF	Firms with female directors command lower loan spreads.
<i>Board experience</i>				
Bédard <i>et al.</i>	2008	Audit committee, underpricing of IPOs, and accuracy of management earnings forecasts	CGIR	The independence and expertise of the Audit Committee serve as a credible signal to investors, leading them to demand lower levels of IPO underpricing.

Continued

Table 7.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Chan and Li	2008	Audit committee and firm value: Evidence on outside Top executives as expert-independent directors	CGIR	Expert-independent directors on audit committee (i.e., 50 per cent or more expert-independent directors on audit committee) results in positive firm value.
Hagendorff <i>et al.</i>	2010	Board monitoring, regulation, and performance in the banking industry: Evidence from the market for corporate control	CGIR	In strict regulatory regimes board independence and board diversity are effective in improving the returns of bidding banks. The results suggest a complementary relationship between regulation and some governance mechanisms.
White <i>et al.</i>	2014	Appointments of academic directors	JCF	Specialized professors in science, medicine and engineering are valued positively by the market. Academic directors are appointed for their networks, and the market reacts favorably when the administrator is affiliated with a business school but negatively when the director is not within close geographic proximity. Business professors are appointed for general expertise and reputation, but there is little evidence of any significant market reaction.
Feldman and Montgomery	2015	Are incentives without expertise sufficient? Evidence from fortune 500 firms	SMJ	The presence of directors who lack top-level experience but own large shareholdings is negatively associated with firm value. This negative impact grows as the number of such directors increases.
Almandoz and Tilcsik	2016	When experts become liabilities: Domain experts on boards and organizational failure	AOM	A higher proportion of domain experts on a board detracts from effective decision making and thus increase the probability of organizational failure.

Continued

Table 7.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Schnatterly <i>et al.</i>	2021	The effects of board expertise-risk misalignment and subsequent strategic board reconfiguration on firm performance	SMJ	Boards are unlikely to be effective if they lack sufficient collective expertise to understand, monitor, and address future risks. Boards with misalignment negatively impact firm performance. Misalignment also motivates appropriate board reconfiguration, which positively affects firm performance.
<i>Board networks</i>				
Kim <i>et al.</i>	2014	Outside directors and board advising and monitoring performance	JAE	Outside director tenure is positively associated with firm acquisition/investment policy and advising performance. However, tenure marginally weakens financial reporting monitoring performance which is instead enhanced by outside directors' financial expertise. Overall, the results suggest outside director tenure and diverse expertise support both advising and monitoring performance.
Joh and Jung	2018	When do firms benefit from affiliated outside directors? Evidence from Korea	CGIR	In low information asymmetry environments, firms with more affiliated outside directors have lower firm value. In high information asymmetry environments, Firms with more independent outside directors have lower firm value
<i>Age, tenure & genetic diversity</i>				
Erhardt <i>et al.</i>	2003	Board of Director Diversity and Firm Financial Performance	CGIR	Board diversity is positively associated with financial indicators of firm performance.

Continued

Table 7.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Grove <i>et al.</i>	2011	Corporate governance and performance in the wake of the financial crisis: Evidence from US commercial banks	CGIR	There is a concave relationship between financial performance and average director age in a sample of US banks during the financial crisis.
Berger <i>et al.</i>	2014	Executive board composition and bank risk taking	JCF	Younger executive teams increase portfolio risk.
Delis <i>et al.</i>	2017	The effect of board directors from countries with different genetic diversity levels on corporate performance	MANSI	Adding board members from countries with different level of genetic diversity, increases firm performance
Huang and Hilary	2018	Zombie board: Board tenure and firm performance	JAR	Board tenure exhibits an inverted U-shaped relation with firm value and accounting performance. The quality of corporate decisions, such as M&A, financial reporting quality, and CEO compensation, also has a quadratic relation with board tenure.
Li and Wahid	2018	Director tenure diversity and board monitoring effectiveness	CAR	Tenure-diverse boards exhibit significantly higher CEO performance-turnover sensitivity. Firms with tenure-diverse audit committees are less likely to experience accounting restatements. Even though tenure-diverse boards seem to exhibit superior monitoring performance, there is limited evidence that their firms exhibit superior financial performance.
Billings <i>et al.</i>	2022	Investors' response to the #MeToo movement: does corporate culture matter?	RAST	Companies that had traditionally excluded women from their boards faced a negative market reaction as support for the growth of #MeToo movement grew, whereas investors responded favorably to firms that historically embraced the inclusion of women on their boards.

Continued

Table 7.1: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Eckbo <i>et al.</i>	2022	Valuation Effects of Norway's Board Gender-Quota Law Revisited	MANSKI	This study demonstrates that portfolios of firms with (i) all-male boards in 2001 and (ii) with at least one female director show zero long-term stock return performance.
Kang <i>et al.</i>	2022	Does Board Demographic Diversity Enhance Cognitive Diversity and Monitoring?	TAR	This study explores whether board demographic diversity fosters cognitive diversity (measured by director dissent) and improves monitoring. It finds that directors with differing tenure and experience are more likely to dissent individually, and boards with diverse tenure, experience, and gender are more prone to dissent as a group. The research also shows that stock market reactions to director resignations are more negative for dissenting directors. Furthermore, after dissent-driven proposal rejections, firms experience increased value, improved internal governance, and reduced risk.
Schabus	2022	Do Director Networks Help Managers Forecast Better?	TAR	Companies that have greater board connections significantly improve the accuracy of management forecasts
Ferrari <i>et al.</i>	2022	Do Board Gender Quotas Matter? Selection, Performance, and Stock Market Effects	MANSKI	Results show that quotas are associated with a new selection of board members, characterized by higher education and lower age, and no significant costs on firm performance or the stock market.

Conversely, a subset of studies (71) investigated multiple dimensions of diversity simultaneously, making it difficult to distinguish findings across various diversity categories. Only studies on board expertise and ethnic diversity report conclusive results, showing a positive impact on performance. Thirdly, our findings show that early studies focus primarily on US companies. Only after 2006 researchers begin delving into non-US samples (Minichilli *et al.*, 2009; Ravasi and Zattoni, 2006). Initially, most of these studies were published by one journal (CGIR), while more recently, they also appeared in other top journals. This trend shows that, over the past decade, scholars have progressively expanded their understanding of the implications of board diversity by examining samples from previously unexplored countries such as Argentina (Bazel-Shoham *et al.*, 2020), Indonesia (Herdhayinta *et al.*, 2021), and Korea (Joh and Jung, 2018). These studies have the merit to underline that the formal institutions (such as the legal system and the regulations) and the informal institutions (such as the culture and the religion) significantly influence the relationship between board diversity and firm outcomes.

7.2 Board Diversity's Impact on Corporate Strategy, Innovation and Sustainability

A limited number of articles analyze the relationship between board diversity and corporate strategy or strategic decision-making. Those papers are published in management and organization journals or in the interdisciplinary *Corporate Governance: An International Review*. This literature investigates the effects of board diversity (mostly in terms of network, experience, educational background, and gender) on corporate strategy, innovation, and sustainability.

A considerable number of articles analyze the relationship between board networks (or social capital diversity) and corporate strategy. Using a sample of US companies, Connelly *et al.* (2011) show that director ties to unsuccessful or successful adopters of strategic expansion to China have equal and opposing effects on the probability of adoption of such foreign strategies. Focusing on German companies, Tuschke *et al.* (2014) show that the variety in board interlocks affects foreign

investments: specifically, differences across types of ties affect how directors influence internationalization strategies. Focusing on the variety of ties, Haynes and Hillman (2010) distinguished between the portfolio of directors' functional, occupational, social, and professional experiences and extra-industry ties (the so-called board capital breadth), and the embeddedness of directors in the firm's primary industry through interlocking directorships or occupational experience (the so-called board capital depth). Their results suggest that more heterogeneous boards in terms of director networks are more likely to encourage changes from past strategies, as they find that board capital breadth positively influences strategic change, whereas board capital depth has a negative effect on strategic deviation.

Sundaramurthy *et al.* (2014) show that directors' scientific educational backgrounds have positive synergies with IPO performance. In a more recent paper, Oehmichen *et al.* (2017) find that the relationship between industry expertise and strategic change is moderated by the institutional environment. Wilson *et al.* (2022) show that an increase in the percentage of foreign directors is positively associated with the internationalization strategies.

Studies analyzing the relationship between board gender diversity and strategic change show a complex association. Chen *et al.* (2016) argue that female directors are associated with more comprehensive board-level decision-making, which, in turn, is linked with a more exhaustive evaluation of major strategic proposals. Their results concerning a sample of M&As of US public firms support this argument by showing that board gender diversity leads to more stringent scrutiny of the M&A operations, which translates into a smaller number of M&A deals and smaller target acquisition size. Askarzadeh *et al.* (2022) find that a higher proportion of female directors is associated with lower ownership levels in foreign acquisitions, particularly when women represent at least 30% of the board. The study also shows that this relationship is strengthened by institutional distance, which refers to the differences between the institutional environments of the home and host countries.

Using a sample of French companies, Nekhili *et al.* (2022) find that board gender diversity is negatively associated with the number of reported related-party transactions. In particular, they show that

this negative association is driven by female directors involved in the board monitoring duties (i.e., female independent directors and female members of the audit committee). Since related-party transactions might be a mechanism to expropriate minority shareholders' wealth, their results confirm the more vigilant role of boards with a higher representation of women. Sidhu *et al.* (2021) argue that the negative association between board gender diversity and strategic change may be explained by gender status differences, biases, and stereotypes. Beyond showing that an increase in board gender diversity has a significant negative effect on strategic change, they also highlight that – when there is a female chair – this negative effect is reversed.

More conclusive results concern the relationship between board diversity and company innovation. Previous studies show that firms with greater board diversity invest persistently more in R&D and have more efficient innovation processes (Bernile *et al.*, 2018). Firms with higher board diversity develop new technology in unfamiliar areas and, as a result, create a larger number of most-cited and uncited patents (An *et al.*, 2021). The benefit of board diversity is more pronounced for firms with more complex operations, more experienced boards, and stronger external governance, suggesting that more diverse boards have superior advisory capacity on company innovation.

Similarly, literature suggests that firms with gender diverse boards produce more and novel patents have a higher innovative efficiency (Griffin *et al.*, 2021). This effect is more pronounced in male-dominated industries (Cumming and Leung, 2021). Miller and Triana (2009) demonstrate that both gender and racial diversity enhance corporate innovation. Firms with ancestrally diverse boards are found to have both more numerous and more cited patents, and strategies that conform less to those of their industry peers (Giannetti and Zhao, 2019). Finally, education, industry specific experience, and interlocking diversity enhance R&D investment and innovation outcomes (Chen, 2014; Chang and Wu, 2021).

Literature on board diversity and corporate social responsibility (CSR), or sustainability, is dominated by studies that analyze the effect of gender diversity. Overall, these studies show that board gender diversity enhances corporate sustainability and the CSR agenda. McGuinness *et al.* (2017) show that boards with higher female representation improve CSR performance. Other studies document that board gender diversity pushes companies to use renewable energy (Atif *et al.*, 2021) and implies a lower probability of being involved in environmental violations (Liu, 2018). Luo *et al.* (2021) focus on the relationship between directors' foreign experience and corporate philanthropy. Using a sample of Chinese publicly listed firms, they show that boards with directors with foreign experience are more likely to be involved in corporate donation, and this effect is significantly stronger for foreign directors with longer exposure to high-donation contexts. Kara *et al.* (2022) document that banks with higher female board representation are more active in supporting their customers and communities, as well as in higher charity and donations during COVID-19 pandemic. Briano-Turrent (2022) shows that female board members positively influence corporate ethical behavior, such as board ethical functioning, ethics codes, and stakeholder orientation.

In sum, previous empirical studies highlight that higher board diversity may positively impact various firm outcomes, particularly strategic change, corporate innovation, and sustainability. Table 7.2 offers an overview of the aforementioned studies.

7.3 Board Diversity and Board Role Performance

The literature examining the relationship between board diversity and board role performance is large. Empirical studies investigate the relationship between board diversity and various governance variables like board monitoring, board roles, financial reporting quality, earnings quality, board composition, or structure.

Table 7.2: Board diversity and strategy, innovation and sustainability

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Miller and Triana	2009	Demographic diversity in the boardroom: Mediators of the board diversity—firm performance relationship	JOMS	The relationship between board gender diversity and innovation is positive. Moreover, the relationship between board racial diversity and both firm reputation and innovation is positive. Reputation and innovation both partially mediate the relationship between board racial diversity and firm performance.
Haynes and Hillman	2010	The effect of board capital and CEO power on strategic change	SMJ	Developing the construct of board capital, composed of the breadth and depth of directors' human and social capital, this study documents how board capital affects strategic change. Board capital breadth leads to more strategic change, while board capital depth leads to less. These results are moderated by CEO power.
Connelly <i>et al.</i>	2011	More than adopters: Competing influences in the interlocking directorate	ORSCI	Looking at firms adopting a strategy of expansion into China, this study shows that the ties to adopters that unsuccessfully implement this strategy have a nearly equal and opposing effect on the likelihood of adoption as do ties to those that successfully implement the strategy.
Tuscke <i>et al.</i>	2014	Whose experience matters in the boardroom? The effects of experiential and vicarious learning on emerging market entry	SMJ	Focusing on the different types of interlocks, the study distinguishes between the relative advantages of various tie attributes such as experience, authority, and credibility and argue that these distinctions lead to measurable differences in learning outcomes.

Continued

Table 7.2: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Sundaramurthy <i>et al.</i>	2014	Positive and negative synergies between the CEO's and the corporate board's human and social capital: A study of biotechnology firms	SMJ	Accumulated public company board experiences of the CEO and the board have positive synergistic effects on IPO performance. Scientific educational backgrounds have positive synergies. Industry-specific experiences produce either positive or counterproductive effects depending on the age and profitability of the firm.
Chen	2014	Board capital, CEO power and R&D investment in electronics firms	CGIR	In a panel of electronics firms in Taiwan, that board capital (directors' educational level, directors' industry-specific experience and interlocking directorate ties) has a positive effect on R&D investment and that CEO power positively moderates this effect. The empirical evidence suggests that when powerful CEOs are present, directors with human and social capital will devote more effort to providing valuable strategic advice and resources and thus will support R&D investment to enhance innovative capabilities.
Chen <i>et al.</i>	2016	Female board representation and corporate acquisition intensity.	SMJ	Greater female representation on a firm's board is negatively associated with both the number of acquisitions the firm engages in and, conditional on doing a deal, acquisition size.
Oehmichen <i>et al.</i>	2017	Who needs experts most? Board industry expertise and strategic change—a contingency perspective	SMJ	This research analyzes the effects of board industry expertise on corporate strategic change and the moderating role of institutional quality. The findings shows that industry expertise is a driver of strategic change across countries.
McGuinness <i>et al.</i>	2017	CSR performance in China: The role of board gender and foreign ownership	JCF	Greater gender balance in top-management supports stronger CSR performance. Findings also reveal stronger CSR performance in firms with a female CEO.

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Table 7.2: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Bernile <i>et al.</i>	2018	Board diversity, firm risk, and corporate policies	JFE	Firms with greater board diversity invest persistently more in research and development (R&D) and have more efficient innovation processes.
Liu	2018	Are women greener? Corporate gender diversity and environmental violations	JCF	Firms with greater board gender diversity are less often sued for environmental infringements. In contrast, CEO gender is linked to reduced environmental litigation only in firms with low female board representation.
Giannetti and Zhao	2019	Board ancestral diversity and firm-performance volatility	JFQA	Firms with ancestrally diverse boards have more numerous and more cited patents. Firms with greater ancestral diversity also have more board meetings and make less predictable decisions.
Bazel-Shoham <i>et al.</i>	2020	Impact of the female board members and gaps in linguistic gender marking on cross-border M&A	JWB	The presence of female directors impacts cross-border M&As. Larger gaps in linguistic gender marking between home and host countries reduce cross-border M&As.
An <i>et al.</i>	2021	Corporate innovation: Do diverse boards help?	JFQA	Corporate innovation is positively related to board diversity as measured by a multidimensional index. The benefit of board diversity is more pronounced for firms with more complex operations, more experienced boards, and stronger external governance, suggesting that diverse boards have superior advising capacity. Moreover, firms with diverse boards engage in more exploratory innovations and develop new technology in unfamiliar areas. As a result, they create a larger number of both most-cited and uncited patents. Finally, of the six different aspects of board diversity, professional diversity matters the most for corporate innovation
Nekhili <i>et al.</i>	2022	Do board gender quotas benefit minority shareholders? An illustration through related-party transactions	BJM	Board gender diversity negatively correlates with the number of reported related party transactions (RPTs). This negative correlation is driven by female directors involved in the board's monitoring duties (female independent directors and members of the audit committee). However, because they are less likely to be able to challenge managers, female inside directors do not affect the occurrence of RPTs.

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Table 7.2: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Sidhu <i>et al.</i>	2021	In the shadow of social stereotypes: Gender diversity on corporate boards, board chair's gender and strategic change	OSCI	Because of gender status difference and bias, more gender diversity will result in less strategic change as a board's decisions begin to follow the stance of a smaller but relatively more influential "boys' club". Moreover, boards that have a female chair as opposed to a male chair, a recession in the shadow of gender stereotypes reverses board gender diversity's negative effect on strategic change.
Griffin <i>et al.</i>	2021	Board gender diversity and corporate innovation: International evidence	JFQA	Firms with gender diverse boards have more patents and novel patents, and a higher innovative efficiency. Further analyses suggest that gender diverse boards are associated with more failure-tolerant and long-term chief executive officer (CEO) incentives, more innovative corporate cultures, and more diverse inventors.
Cumming and Leung	2021	Board diversity and corporate innovation: Regional demographics and industry context	CGIR	Diversity matters in different ways depending on industry context. Specifically, gender diversity facilitates innovation in male-dominated industries, not female-dominated industries.
Chang and Wu	2021	Board networks and corporate innovation	MANSI	Well-connected boards have a positive effect on innovation activities and quality. The effect is stronger when firms have higher demand for advising or face more severe agency problems. Firms with greater needs for external finance benefit more from board connections with bankers. Evidence indicates that types and relatedness of connections as well as director characteristics contribute to cross-sectional heterogeneity of the positive effect.
Atif <i>et al.</i>	2021	Does board gender diversity affect renewable energy consumption?	JCF	There is a positive relationship between board gender diversity and renewable energy consumption. Moreover, boards require two or more women for women to have a significant impact on renewable energy consumption, consistent with the critical mass theory.

Continued

Table 7.2: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Luo <i>et al.</i>	2021	Coming back and giving back: Transposition, institutional actors, and the paradox of peripheral influence	ASQ	The presence on firms' boards of directors of returnees (nationals with foreign background) with relevant exposure abroad significantly increases firms' participation in corporate social responsibility, specifically in the form of making corporate donations.
Askarzadeh <i>et al.</i>	2022	The effect of female board representation on the level of ownership in foreign acquisitions	CGIR	Higher female representation is linked to lower ownership levels in foreign acquisitions, with a significant effect observed only when women make up 30% or more of the board. Additionally, the study reveals that institutional distance—measured by the dissimilarities between the institutional environments of home and host countries—strengthens this relationship.
Wilson <i>et al.</i>	2022	Exporting by Private Equity-Backed Portfolio Companies	BJM	An increase in the percentage of foreign directors on the board boosts export propensity. However, the presence of female directors and ethnic minority directors does not contribute to higher export propensity. The negative relationship with ethnic minority directors is attributed to exclusion from information-sharing, limiting their monitoring effectiveness.
Briano-Turrent	2022	Female representation on boards and corporate ethical behavior in Latin American companies	CGIR	Female board members positively influence corporate ethical performance in four dimensions: board ethical functioning, ethics codes, governance committees, and stakeholder orientation

Some studies focus on board monitoring and control. Adams and Ferreira (2009) document that female directors have better attendance and are more likely to join monitoring committees than male directors. They also show that male directors increase their board attendance when the board is more gender-diverse, suggesting that gender diversity changes the behavior of male directors and improves their monitoring. Distinguishing among different types of control, Nielsen and Huse (2010) show that board gender diversity increases board monitoring over corporate strategies advanced by top managers in Norwegian companies.

Studying the minutes of board meetings, Schwartz-Ziv (2017) shows that boards with a more balanced gender representation (i.e., having at least three female directors) are not only more engaged in monitoring, but also more active during the board meetings, in particular when CEOs are replaced. The same study shows that directors' diversity in background and skills has the opposite effect on board monitoring. Using a sample of Italian companies, Minichilli *et al.* (2009) document that board members' background diversity has a negative impact on behavioral and control board tasks. Board diversity might also create hypothetical dividing lines (faultlines), which split the boards into subgroups and may hamper board effectiveness and performance (Veltrop *et al.*, 2015).

About board monitoring of CEOs and their compensation, Alkalbani *et al.* (2019) show that gender diversity in the remuneration committee of UK companies reduces the likelihood of shareholder dissent on say on pay procedures. Other studies document that, in US companies, board gender diversity produces better CEO accountability and lower risk taking (Bao *et al.*, 2014; Boutchkova *et al.*, 2021; Kim *et al.*, 2020). Investigating the effects associated with various types of board diversity (e.g., age, gender, ethnicity, education level, Ivy League background, functional area of expertise, and industry background), Zhu and Shen (2016) find that board diversity's impact on board performance is contingent on the CEO's ability to work effectively with diverse boards. In particular, their results show that a new outside CEO – with prior experience of working with relatively diverse boards – reduces the likelihood of post-succession CEO and director turnover. Looking at within-board connections and the diversity among directors in terms of

education, employment and family, Souther (2018) finds that boards with more homogeneous backgrounds have a lower director turnover and new director appointments more frequently connected with incumbent directors. This result suggests that the similarities among directors negatively impact the quality of their monitoring.

Literature on financial reporting quality, disclosure, and transparency, which is a major research stream in accounting, is very conclusive. Research shows that board diversity brings significant statistical and economic benefits, independently of how the dependent variable is measured or which diversity type is employed. Some studies document that boards having directors with financial, accounting, supervisory, or legal expertise are associated with lower levels of accounting irregularities and abnormal accruals and a lower probability of disclosing material weakness (Badolato *et al.*, 2014; Chychyla *et al.*, 2019; Krishnan *et al.*, 2011). Overall, those studies suggest that board diversity enhances financial reporting quality.

Focusing on board gender diversity, other studies provide evidence that firms with a higher representation of female directors achieve better earnings quality (Srinidhi *et al.*, 2011) or demand and obtain higher audit quality (Lai *et al.*, 2017). Similarly, some articles document that boards with interlocking directors are associated with enhanced reporting quality measured, *inter alia*, by audit pricing (Carcello *et al.*, 2002) or internal control material weakness (Cheng *et al.*, 2019). Finally, firms with tenure-diverse audit committees are less likely to experience accounting restatements and are more likely to achieve enhanced monitoring effectiveness (Li and Wahid, 2018).

Another stream of research – mostly published in *Corporate Governance: An International Review* – investigates the relationship between board diversity and board composition, structure, and practices. Earlier studies show that boards are quite homogenous in terms of gender: minorities and women directors are less represented in boards (McDonald and Westphal, 2013) and are less likely to be appointed as members of important board committees like the nomination and finance committee (Peterson *et al.*, 2007). Other studies underline that women and foreign directors are more likely to be independent directors (Ruigrok *et al.*, 2007), whereas women inside directors earn less than their male

counterparts and are less likely to hold other directorships (Zelevchowski and Bilimoria, 2004). Regarding changes in board composition, Farrell and Hersch (2005) show that in a sample of Fortune 500 companies over the period 1990–2000, the likelihood of a company adding a female director increases when a female director departs from the board. They also highlight that the probability of appointing a woman on the board is negatively affected by the number of women sitting on the board. In a recent study, Field *et al.* (2020) show that, in a sample of S&P 1500 companies over the years 2006–2017, female and minority directors have higher qualifications than other directors, but are less likely to reach leadership roles. They also underline that this result does not depend on differences in experience or preferences for leadership positions, monitoring ability, or other commitments in other boards between female and male directors. The key reason is instead that the boards value these skills less when they concern female and ethnic minority directors.

In a recent study, Naumovska *et al.* (2020) show that the recent socio-economic pressures regarding board diversity have increased the demand for women and ethnic minority directors, so increasing the value of such directors, at least for those who are closer to the inner circle of white male directors. They highlight, also, that the underrepresentation of women and ethnic minorities is positively associated with the relative reputational immunity from the penalties in the directors' labor market that usually follow a corporate wrongdoing. Marcel and Cowen (2014) report that, after a fiscal fraud or other governance weaknesses, high-capital directors are less likely to leave the board than low-capital directors. Chen and Guay (2020) document a positive relationship between busy directors' age, tenure diversity and shareholder satisfaction. Hoitash and Mkrtchyan (2022) document that diversity in political ideology influences the governance structure. Specifically, politically conservative directors are more likely to promote a lone-insider governance structure, whereas politically liberal directors advocate for a CEO-chairman separation. Table 7.3 summarizes the above results.

Table 7.3: Board diversity and board performance

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
<i>Board monitoring</i> Adams and Ferreira	2009	Women in the boardroom and their impact on governance and performance	JFE	In a sample of US firms, female directors have better attendance records than male directors; male directors have fewer attendance problems the more gender-diverse the board is; and women are more likely to join monitoring committees. These results suggest that gender-diverse boards allocate more effort to monitoring.
Minichilli <i>et al.</i>	2009	Making boards effective: An empirical examination of board task performance	BJM	The board members' background diversity is negatively related to behavioral control and strategic control task performance, while it is positively related to output control task performance.
Nielsen and Huse	2010	The contribution of women on boards of directors: Going beyond the surface	CGIR	In a sample of 201 Norwegian firms, the ratio of women directors is positively associated with board strategic control. This positive effects of women directors on board effectiveness are mediated through increased board development activities and through decreased level of conflict. No evidence for a positive association between women directors and open debate.
Bao <i>et al.</i>	2014	Women in upper echelons of management, tenure and legal risk	BJM	The presence of women in TMTs and BODs are negatively associated with legal risk. Longer tenured BODs with more women had a positive impact on lawsuits.
Veltrop <i>et al.</i>	2015	A tale of two Factions: Why and when factional demographic faultlines hurt board performance	CGIR	Board diversity creates faultlines which negatively affect board performance, measured as perceived board effectiveness, and financial return on investment.
Schwartz-Ziv	2017	Gender and board activeness: The role of critical mass	JFQA	Boards with at least 3 directors of each gender attend more meetings and are more active at board meetings than those without such representation. They are also more likely to replace underperforming chief executive officers (CEOs).

Continued

Table 7.3: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Hoitash and Mkrtychyan	2022	Internal governance and outside directors' connections to non-director executives	JAE	This study explores how the political ideology of board directors influences the governance structures they promote in the companies they serve. Politically conservative directors are more inclined to promote the lone-insider structure, where the CEO also serves as board chair, while politically liberal directors are more likely to advocate for the separation of CEO and chair roles
<i>CEO monitoring</i>				
Zhu and Shen	2016	Why do some outside successions fare better than others? The role of outside CEOs' prior experience with board diversity	SMJ	A new outside CEO is more likely to experience turnover when the focal board is more diverse than the other boards on which the CEO previously served.
Souther	2018	The effects of internal board networks: Evidence from closed-end funds	JAE	Internal board networks negatively impact a firm's governance environment and overall monitoring quality. Boards with shared education, employment, and family backgrounds exhibit higher expense ratios, higher director compensation levels, and an increased likelihood of financial misrepresentation.
Alkalbani <i>et al.</i>	2019	Gender diversity and say on pay: Evidence from UK remuneration committees	CGIR	Women on the remuneration committee reduce shareholders' dissent via say on pay. Only boards with a critical mass of more than 30% women on this committee are more likely to have less shareholders' dissent via say on pay.
Kim <i>et al.</i>	2020	Female representation on boards and CEO performance-induced turnover: Evidence from Russia	CGIR	Using a sample of public firms listed on the Moscow Stock Exchange from 2006 to 2015, this study finds that female representation on boards is associated with lower CEO turnover-performance sensitivity. Furthermore, female representation on boards is associated with greater diligence (i.e., hold more board meetings) after retaining their underperforming CEOs.

Continued

Table 7.3: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Boutchkova <i>et al.</i>	2021	Gender diversity and the spillover effects of women on boards	CGIR	Boardroom gender diversity is significantly related to director personal responsibility (board attendance), CEO accountability, and risk taking.
<i>Disclosure and transparency</i>				
Carcello <i>et al.</i>	2002	Board characteristics and audit fees	CAR	There are significant positive relations between audit fees and the average number of outside directorships held in other firms by outside directors.
Krishnan <i>et al.</i>	2011	Legal expertise on corporate audit committees and financial reporting quality	TAR	The presence (and proportion) of directors with legal backgrounds on the audit committee is associated with higher financial reporting quality
Srinidhi <i>et al.</i>	2011	Female directors and earnings quality	CAR	Boards with female directors, specifically in the audit committee, exhibit better reporting discipline by managers
Badolato <i>et al.</i>	2014	Audit committee financial expertise and earnings management: The role of status	JAE	Directors with both financial expertise and high relative status sitting in audit committees are associated with lower levels of earnings management, as measured by accounting irregularities and abnormal accruals.
Lai <i>et al.</i>	2017	Board gender diversity, auditor fees and auditor choice	CAR	Firms with gender-diverse boards (audit committees) pay 6 percent (8 percent) higher audit fees and are 6 percent (7 percent) more likely to choose specialist auditors compared to all male boards (audit committees). These findings suggest that boards (audit committees) with female directors (members) are likely to demand higher audit quality.

Continued

Table 7.3: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Cheng <i>et al.</i>	2019	Spillover effects of internal control weakness disclosures: The role of audit committees and board connections	CAR	Prior director experiences outside the firm influence the work of audit committees inside the firm. Firms are less likely to report an internal control material weakness (as mandated by the Sarbanes-Oxley Act) in a given year if one of their audit committee members is concurrently on the board of a firm that disclosed a material weakness within the prior three years. A similar spillover effect is for financial restatement disclosures. The spillover from material weakness disclosures is evident only if a shared director has more experience with the disclosing firm or can channel more information about the disclosed material weakness.
Li and Yu	2018	Director tenure diversity and board monitoring effectiveness	CAR	Tenure-diverse boards exhibit superior monitoring performance and higher CEO performance-turnover sensitivity. Boards with tenure-diverse audit committees are less likely to experience accounting restatements.
<i>Board composition</i>				
Zelechowski and Bilimoria	2004	Characteristics of women and men corporate inside directors in the US	CGIR	While women insiders do not differ on the experience-based qualifications of board tenure or corporate tenure compared to men, they hold fewer directorships of other corporations, hold less powerful corporate titles, occupy disproportionately more staff functions, are less likely to be top earners of the corporation, and earn considerably less than men inside directors.
Farrell and Hersch	2005	Additions to corporate boards: the effect of gender	JFC	The likelihood of a firm adding a woman to its board in a given year is negatively affected by the number of women already on the board. The probability of adding a woman is materially increased when a female director departs the board. Adding a director, therefore, is clearly not gender neutral.

Continued

Table 7.3: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Peterson <i>et al.</i>	2007	African-American diversity in the boardrooms of the US fortune 500: director presence, expertise and committee membership	CGIR	Race plays a role in determining assignment to corporate board committees. Black directors are more (less) likely than whites to sit on audit and public affairs (executive) committees. Black female directors are more likely than both white females and black males to serve on finance committees.
Ruigrok <i>et al.</i>	2007	Nationality and gender diversity on Swiss corporate boards	CGIR	In a sample of 210 Swiss publicly listed firms in 2003, foreign directors are more likely to be more independent. Women directors are more likely to be affiliated to firm management through family ties. Female and foreign directors also differ in terms of educational background, educational level, age and board tenure.
McDonald and Westphal	2013	Access denied: Low mentoring of women and minority first-time directors and its negative effects on appointments to additional board	AOM	This paper explains underrepresentation of women and racial minorities in board by referring to the fact that these two groups are underrepresented and at first-time directors receive substantially less process monitoring in boards than other groups.
Marcel and Cowen	2014	Cleaning house or jumping ship? Understanding board upheaval following financial fraud	SMJ	Low-capital directors (outside directors) are significantly more likely to leave boards than are high-capital directors following a fiscal fraud. These results are consistent with cleaning house, or the view that boards initiate director departures to repair organizational legitimacy by signaling a willingness to remedy governance weaknesses.

Continued

Table 7.3: Continued

<i>Authors</i>	<i>Year</i>	<i>Title</i>	<i>Journal</i>	<i>Main Findings</i>
Field <i>et al.</i>	2020	At the table but can't break through the glass ceiling: Board leadership positions elude diverse directors	JFE	Diverse directors (female and minority) are significantly less likely to serve in leadership positions despite possessing stronger qualifications than nondiverse directors. While specialized skills such as prior leadership or finance experience increase the likelihood of appointment, that likelihood is reduced for diverse directors.
Naumovska <i>et al.</i>	2020	Last to come and last to go? On the complex role of gender and ethnicity in the reputational penalties for directors linked to corporate fraud	AOM	Women and ethnic minority directors faced fewer negative consequences—in terms of net loss of outside directorships—compared to their white male colleagues when the media discourse on board diversity was higher.
Chen and Guay	2020	Busy directors and shareholder satisfaction	JFQA	The potential costs of busy directors outweigh their benefits. The study also uncovers new sources of heterogeneity among busy directors.

8

Future Research Directions

Drawing from our findings (see Figure 8.1 for a synthesis), in this section we advance some recommendations for future research, focusing on the conceptual frameworks, the methodologies employed in the empirical analysis, and the potential research questions to address.

8.1 Refining the Theoretical Frameworks

Based on the insights discussed in the preceding sections, we advocate refining the theoretical frameworks that underpin board diversity studies. This refinement should focus on several key areas: first, the conceptualization and understanding of diversity; second, the causal links between board diversity and outcomes at the board- or firm-level; third, the examination of the variables as intermediary factors; fourth, the consideration of contextual variables; and fifth, the adoption of a multi-level analysis.

As highlighted in Section 2, diversity is a multifaceted concept with various interpretations (Harrison and Klein, 2007). Our research indicates that most previous studies on board diversity have primarily defined diversity in terms of variety. Specifically, these studies have

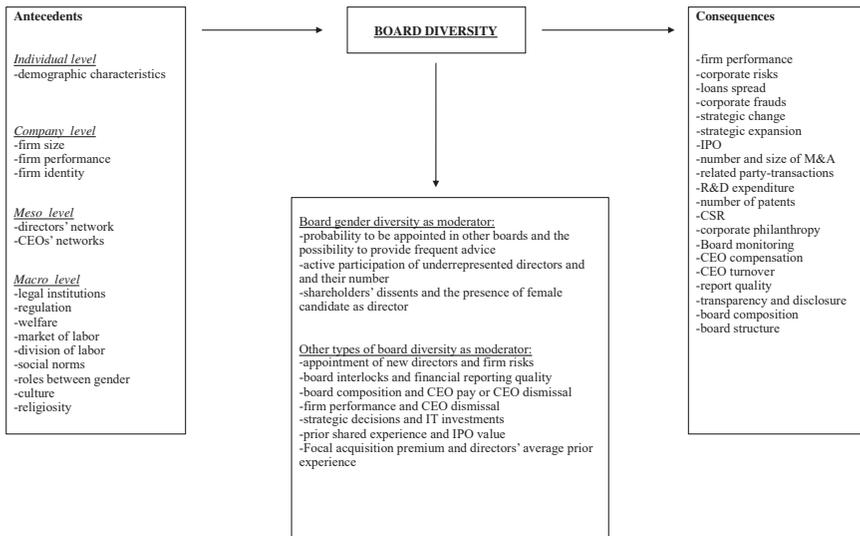


Figure 8.1: Board diversity: the main relationships.

largely concentrated on board diversity in terms of variety of demographic traits, experience, and networks. However, this predominant focus on board diversity solely as “board variety” (or heterogeneity) fails to address other potential research questions related to different interpretations of board diversity (i.e., diversity as separation or disparity).

To bridge this gap, future studies could broaden the meaning of diversity, focusing on the definition of diversity as separation (also called horizontal diversity) or disparity (also called vertical diversity). Drawing upon theories such as similarity-attraction or social categorization, scholars can explore whether horizontal differences in opinions or values among directors may impact board functioning, roles, or cohesion (e.g., Forbes and Milliken, 1999; Harrison and Klein, 2007). Additionally, leveraging distributive justice or equity theories, future studies could investigate whether vertical differences in pay or status among directors contribute to increased frustration or turnover, potentially undermining cohesion and performance (e.g., Harrison and Klein, 2007; Nkomo *et al.*, 2019; Geiler and Renneboog, 2015). Furthermore, we encourage future research to delve deeper into the factors which create and amplify

board separation and disparity, as current studies primarily focus on the determinants of “board variety”.

Secondly, our research reveals that prior studies examining the relationship between board diversity and board or firm outcomes have provided only a limited understanding of the underlying causal mechanisms. While the mixed results concerning this relationship may be attributed to differences concerning either the research methodologies or the conceptualization of diversity (as discussed in the previous sections), theoretical insights could offer additional explanations. For instance, past studies have implicitly assumed that one dimension of diversity (such as gender) may produce similar outcomes produced by any other type of diversity (such as functional background), or that female board members are a homogenous group across all demographic, human, and social capital dimensions (Zattoni, 2020). Diversity is a complex and multifaceted construct and the oversimplified treatment of diversity in theoretical frameworks – such as categorizing individuals based on one dimension (e.g., Nkomo *et al.*, 2019) – may lead to biased interpretations. Therefore, we encourage future studies to develop theoretical frameworks that, for example, measure the socio-cognitive disparities among various types of directors (e.g., Adams and Funk, 2012; Kirsch, 2018) or explore the large variety of features that characterize board members (e.g., female board members) and their implications on board behavior and roles. Lastly, considering that management studies have highlighted that diversity is a double-edged sword that produces both positive and negative effects on board and firm outcomes, future research should develop more sophisticated theoretical frameworks to understand the causal mechanisms behind these conflicting effects (Martins and Sohn, 2022).

Thirdly, research is largely characterized by input-output analyses that investigate how board diversity impacts firm-level outcomes (Kirsch, 2018). While this approach offers certain advantages – i.e., it relies on readily available, objective, and concise archival data – it also overlooks the potential influence of intermediate board processes on the relationship between board diversity and board outcomes (Forbes and Milliken, 1999). Future research could investigate more closely the role

of board intervening processes by Haynes *et al.* (2019) gathering comprehensive process data or employing qualitative methodologies such as interviews, participant observation, or video recordings of meetings (e.g., Minichilli *et al.*, 2009; Zattoni and Pugliese, 2019; Pugliese *et al.*, 2023). The use of experiments, for example, could enable scholars to more effectively explore the causal mechanisms underlying the relationship between board diversity, processes, and outcomes (e.g., McNulty *et al.*, 2013).

Additionally, future research might challenge the traditional input-output approach by considering board diversity as an intermediate variable, rather than merely an independent one. For instance, researchers could explore how firm-level factors such as firm performance, strategy, or external pressures shape board diversity, which, in turn, affects other outcomes. By treating board diversity as an evolving factor influenced by both internal and external dynamics, scholars can better capture bidirectional relationships and more accurately assess the causal mechanisms at play.

Fourthly, we suggest broadening the analysis to take into account the contextual boundary conditions that may moderate the relationship between board diversity and a specific outcome variable (e.g., Martins and Sohn, 2022; Nkomo *et al.*, 2019). This might include examining formal and informal institutions (e.g., Post and Byron, 2015), industry characteristics (Cumming and Leung, 2021), firm complexity (Zona *et al.*, 2013), or board tasks (e.g., Tasheva and Hillman, 2019). In particular, it would be interesting to focus on specific types of firms, such as spinoffs or family businesses (De Massis *et al.*, 2024). Research in this area could highlight the unique dynamics of board diversity within family-owned firms, shedding light on the interplay of family ownership, board diversity and the overall performance of these businesses. Additionally, future research could explore the role of board diversity in entrepreneurial finance, particularly within equity crowdfunding markets. Unlike traditional finance, where the matching between investors and entrepreneurs is only observed when it occurs, equity crowdfunding allows for the separation of demand (entrepreneurs setting capital targets) and supply (investors deciding which ventures to fund). This unique framework provides an excellent opportunity to study how board

diversity may impact investment decisions, particularly in the context of gender dynamics among entrepreneurs seeking funding.

Lastly, previous research has mainly studied diversity at the board level, without considering whether and how it may interact with diversity at the micro- or macro-level. At the micro-level, Tasheva and Hillman (2019) posit that diversity within each director (referred to as personal range) may interact with diversity at the board level, yielding either complementary or substitutive effects depending on the source of diversity and the nature of the board tasks. In a similar approach, the literature on intersectionality focuses on the implications of within-director diversity on diversity at the board level. At the macro-level, previous studies have mostly collected data from a single country, traditionally the US or the UK. However, the limited number of studies employing multi-country samples indicate that both formal and informal national institutions may either facilitate or impede board (gender) diversity and influence its impact on board and firm outcomes. Therefore, we invite researchers to examine samples of companies from various countries, including emerging and transitional economies (e.g., Martins and Sohn, 2022; Nkomo *et al.*, 2019). More specifically, future studies should conceptualize and explore how different legal, regulatory, social, and cultural contexts may shape the relationship between board diversity, processes, and outcomes, without using country scores as proxies for group or individual cultural scores (e.g., Ginalski, 2022; Ginalski *et al.*, 2023; Kirkman *et al.*, 2017; Taras *et al.*, 2010). In summary, given that the majority of previous studies have focused on a single level (i.e., the board level), we suggest scholars to employ a multi-level analysis incorporating variables at the individual, committee, board, company, or country levels.

8.2 Adopting a Rigorous Operationalization of Board Diversity

Our findings reveal that board diversity is approached with varied operationalizations, prompting a need for a more in-depth investigation into their validity (e.g., Harrison and Klein, 2007). Most studies concentrate on singular dimensions of surface-level diversity, such as gender, age, and ethnicity, employing straightforward and easily measurable

proxies. Examples include the utilization of dummy variables denoting the presence or absence of a characteristic on the board (Gow *et al.*, 2018), the count or ratio of directors possessing a specific attribute (Chen and Guay, 2020; Iliev and Roth, 2018), or a blend of these proxies (Krishnan *et al.*, 2011). While the “usual suspects” in terms of diversity types dominate existing literature, there is a recent exploration of novel categories like political or ideological diversity (Hudson and Morgan, 2022; Lee *et al.*, 2014; Gupta *et al.*, 2022), prestige (Tuggle *et al.*, 2010), and linguistic diversity (Bazel-Shoham *et al.*, 2020).

The extensive array of diverse dimensions within the field suggests a richness in typologies, determinants, and implications. However, this diversity poses challenges. Firstly, a significant body of the literature contends that “boards are multidimensional” (Adams *et al.*, 2018), advocating multiple diversity dimensions. In line with this perspective, studies employ concentration measures of heterogeneity, such as the Blau (Zhu and Shen, 2016) or the Herfindahl indices (Giannetti and Zhao, 2019), or devise various indices (e.g., Bernile *et al.*, 2018). Secondly, not only are boards multidimensional, but individual board members also exhibit a personal range of attributes, such as gender, age, ethnicity, experience, tenure, and relationships (Tasheva and Hillman, 2019; Hillman *et al.*, 2008). The unique combination of these diversities may influence the cognitive contributions of an individual board member, and neglecting this complexity by identifying members with a single dimension oversimplifies the analysis. Future research, utilizing multi-item measures for both individual directors and board-level diversity, could explore the intricate relationship between personal range, or intrapersonal diversity, and board diversity, examining their impact on board- or firm-level outcomes, thereby enhancing causal ambiguity and allowing for equifinality.

Thirdly, our review reveals that most studies rely on objective and surface-level (demographic) measures of board and board member diversity. While most studies utilize archival data, few incorporate self-reporting. The validity of this approach assumes that observable measures serve as proxies for cognitive (deep level) diversities, such as personality, values, attitudes, and beliefs (Boehmer *et al.*, 2002). However, this assumption, criticized in related literature on top management

teams and boards of directors, underscores the importance of considering “the diversity of the mind”. Future studies could contribute to the field by incorporating or developing more direct indicators of cognitive diversity among individuals and within boards, or by combining indicators of surface-level and deep-level diversities. See, for example, the study by Harrison *et al.* (2002) concerning the team diversity literature.

Similarly, the team literature suggests that actual diversity translates into perceived diversity (Riordan, 2000), a process variable, whereas the board literature almost neglects to consider diversity as a process. Individual diversity is associated with identity, and alternative identities are cognitive constructs. Considering that individual identity may reflect deep-felt notions and emotions regarding gender, sexuality, or ethnicity, the question arises regarding which diversity is measured when diversity constructs are built from surface-level characteristics. Unlike robots, whose identities and decisions are determined by algorithms and machine learning (Tsai *et al.*, 2022), human beings’ identities and decisions reflect deeply held individual notions and emotions related to gender, sexuality, or ethnicity.

In conclusion, the trajectory of diversity research within the field may be significantly influenced by how the construct is measured, potentially overlooking true underlying diversities. Future studies could address this gap by developing more sophisticated and comprehensive diversity indicators.

8.3 Strengthening the Empirical Analysis

Endogeneity poses a significant challenge for empirical studies aiming to accurately define models and establish causal relationships (e.g., Antonakis *et al.*, 2014). This issue is particularly relevant in governance literature, given that boards of directors are endogenously determined (Hermalin and Weisbach, 2003). This concern becomes more pronounced considering that a considerable proportion of studies in our sample (approximately 40%, mostly in management) either overlook or fail to address endogeneity (e.g., Carcello *et al.*, 2002; Farrell and Hersch, 2005). Furthermore, several studies that do address endogeneity either do not clearly discuss its causes or only refer to one or more methods to tackle

specific endogeneity concerns (e.g., Ararat *et al.*, 2015). Consequently, subsequent research often replicates methods to address endogeneity without effectively resolving the issue (e.g., Antonakis *et al.*, 2010; Certo *et al.*, 2016; Hill *et al.*, 2021).

Regarding the type of endogeneity problems, omitted variables may be the most challenging since the ideal solution would be to include all relevant diversity types and measures into the model specification. However, this approach is difficult to put in place as (i) capturing all omitted variables is practically impossible, and (ii) researchers encounter issues with data availability. Adams *et al.* (2018) argue that including all variables may become problematic due to co-dependencies of diversity measures. To address omitted variables, some studies employ the fixed effects method (e.g., Adams and Ferreira, 2009; Iliev and Roth, 2018). This approach may be effective when the omitted diversity is consistent for all observations with the same fixed effect, but it is also subject to various limitations (for a comprehensive review, see Bliese *et al.*, 2020). Instrumental variables (IV) represent a common method to tackle omitted variable bias (e.g., Krishnan *et al.*, 2011; Wooldridge, 2010). However, a significant challenge in using this method lies in identifying acceptable instruments, as they must be both theoretically justified, since the exogeneity condition cannot be directly tested, and empirically validated to determine the strength of the instruments (Wooldridge, 2010). Instrumental variable (IV) models in diversity literature primarily utilize two-stage least squares (2SLS) (e.g., An *et al.*, 2021) and three-stage least squares (3SLS) (e.g., Chakravarty and Hedge, 2021), while maximum likelihood and generalized method of moments (GMM) are less common (e.g., Liu *et al.*, 2014). Gilani *et al.* (2021) employ all methods and reach similar conclusions.

Another crucial issue in empirical studies about board diversity is reverse causality (Adams, 2016). This endogeneity problem arises when there is a potential for a reverse relationship (for example when board gender diversity is assumed to influence financial performance, but financial performance may also influence the decision to have a more gender diverse board). A common approach to tackle reverse causality is to utilize lagged variables (Baran and Forst, 2015), although this method has limitations related to autocorrelation, serial correlation,

or serial dependency (Dodge, 2006). Simultaneity can also be viewed as an omitted variable problem, where the omitted variable is prior performance if it is correlated with both board diversity and current performance (Hill *et al.*, 2021). Therefore, scholars may use IVs or GMM to attempt to address issues related to variable omission and reverse causality.

A third source of endogeneity – often overlooked or unaddressed – is measurement error, meaning in our case that diversity is not perfectly measured (Chizema *et al.*, 2015). If the measurement error relates to the dependent variable, it will be absorbed by the error term and thus create an endogeneity bias. Since most prior studies obtain board diversity data from commercial databases and regress it against corporate outcomes, scholars implicitly assume zero measurement error (Kennedy, 2008). However, as diversity measures are rarely self-reported, proxies are often combinations of various measures. Moreover, data from surveys may introduce varying degrees of potential measurement errors. When these errors are recognized, the omitted variable problem arises (Antonakis *et al.*, 2010), and the previously discussed remedies, such as IV, can be applied. For this reason, some scholars (e.g., Chizema *et al.*, 2015; Delis *et al.*, 2017) argue that employing IV models can address measurement errors, reverse causality, and omitted variables bias.

A fourth issue of endogeneity relates to sample selection bias, which can manifest through two distinct channels. The first occurs frequently in surveys when observations are not randomly sampled, but “selected” by the researcher or survey respondents. The second channel, more relevant in archival studies, occurs when diversities are “selected”, such as ethnicity being endogenous if corporate strategies lead to a higher likelihood of having board members from specific ethnic groups. Our analysis suggests that previous studies have under-evaluated the potential influence of selection bias on results. Studies addressing selection bias often employ difference-in-differences method (e.g., Yang *et al.*, 2019) and matching techniques, with propensity score matching being the most popular (Lai *et al.*, 2017). Relatively few studies utilize the Heckman treatment model instead (Mitra *et al.*, 2021).

In summary, board diversity studies face numerous challenges related to endogeneity. It is crucial to accurately diagnose the problems

and justify the chosen technique to address them. Our analysis indicates a trend towards better diagnosis and justification of methods targeting various sources of endogeneity (e.g., Lin *et al.*, 2018; Ye *et al.*, 2019). We encourage future studies on board diversity to identify and adequately tackle all potential endogeneity concerns. One of the most robust approaches to establish causality is through randomized trials, where the causal effect of a diversity measure on the dependent variable is isolated via random assignment. This method mitigates endogeneity concerns, provided there are adequate sample sizes and specific conditions (Hill *et al.*, 2021). While experimental trials might eliminate the problem of endogeneity, collecting experimental data with directors is complex. Quasi-experiments may offer a viable alternative, helping researchers overcome some data collection challenges. For instance, difference-in-differences (diff-in-diff) studies could be particularly useful, leveraging data from commercial databases and exogenous events relevant to board diversity research agendas. In conclusion, as experiments and quasi-experiments are useful methods for uncovering causal relationships and addressing otherwise challenging questions (Floyd and List, 2016, p. 437), we call for further studies on board diversity utilizing these methodologies. We summarize the future research directions in Table 8.1.

8.4 Practical Implications

The fragmented state of the literature on board diversity poses significant challenges in drawing concrete practical insights. Nonetheless, we offer some broad recommendations that may hopefully assist practitioners and policymakers in enhancing the quality of their decision-making processes.

Firstly, our literature review highlights that the ability to nominate and integrate diverse board members could help boards fulfill their leadership duties, especially given the growing complexity of the economic and institutional environment (Zattoni and Pugliese, 2021). However, achieving this goal requires careful evaluation by board nomination committees of the implications of various forms of diversity and proactive measures to prevent the emergence of board divisions or faultlines.

Table 8.1: Directions for future research

<i>Refining the Conceptual Frameworks</i>	<i>Adopting a Rigorous Operationalization of Board Diversity</i>	<i>Strengthen the Empirical Analysis</i>	<i>Exploring New Research Questions</i>
1. New conceptualization and understanding of diversity	1. Use of multi-item measures for both individual directors and board-level diversity	1. Addressing endogeneity	1. What are the causal mechanisms connecting board diversity to firm performance?
2. Theoretical frameworks to understand the causal mechanisms between board diversity and outcomes at the board or firm level	2. Development of indicators of cognitive diversity among individuals and within boards	2. Using instrumental variables and GMM to address reverse causality	2. What contextual factors influence the impact of board diversity?
3. Examination of the variables as intermediary factors to challenge the input-output analyses	3. Evaluation of the interplay between identity and board diversity	3. Developing a clearer understanding of measurement error	3. How to investigate the various types of cognitive diversities among board members?
4. Adoption of a multi-level analysis		4. Using difference-in-difference and propensity score matching for potential sample selection bias	4. How does intrapersonal diversity affect board dynamics?
		5. Employing quasi-experimental designs	

Additionally, board chairs must learn to navigate the increasing diversity in the boardroom (e.g., Zhu and Shen, 2016), such as integrating diverse experiences and perspectives while maintaining cohesion among board members.

Moreover, our findings suggest that the impact of board diversity on board or firm performance is influenced by contextual factors such as national institutions, industry characteristics, and firm attributes (e.g., size and identity) (e.g., Cannella *et al.*, 2015; Cardillo *et al.*, 2021; Daily and Dalton, 2003; Joshi and Roh, 2009; Post and Byron, 2015). Consequently, we encourage policymakers to consider the specificities of country-, industry-, and firm-level factors when formulating corporate laws or promoting good governance codes. Furthermore, we urge

investors and board nomination committees to meticulously assess company and board characteristics when selecting new directors, ensuring that the diversity of directors' experiences and skills aligns with the needs of board decision-making processes (as underscored by the competencies and skills matrices employed by board advisors) (e.g., Zattoni, 2020).

8.5 Limitations and Future Avenues of Research

In designing and executing our literature review, we made specific choices that could potentially limit the generalizations of our findings. Firstly, in line with prior review studies (e.g., Zattoni *et al.*, 2020), we limit our search to empirical articles published in top journals. We considered empirical articles from several disciplinary domains (e.g., management, organization, finance and accounting) as well as the leading journal on corporate governance (i.e., CGIR). Additionally, our review focuses on empirical studies, but encompasses also conceptual studies, reviews, and meta-analyses on board diversity. Future studies could extend our findings by incorporating other publication types (e.g., books, consulting or policy reports) and articles published in additional journals. Finally, our sample comprised 203 papers on board diversity resulting from our search strategy. Although we employed a relatively comprehensive approach and collected a substantial number of articles, we cannot guarantee that we have covered all relevant studies on board diversity. Therefore, future studies could expand our search strategy to identify and analyze a larger or different sample of studies on board diversity.

9

Conclusion

This systematic and interdisciplinary review assesses the findings produced by the growing literature on board diversity. Our analysis shows that previous and ongoing research has mostly explored the impact of board diversity on board or firm outcomes. Despite the extensive scrutiny this research area has received, the results have been largely inconclusive and ambiguous. We posit that these mixed findings can be attributed to the complexity of the board diversity concept and to the theoretical and methodological approaches adopted by previous studies. Drawing from our findings, we give several recommendations to address existing theoretical and methodological challenges in the board diversity literature, with the final aim of advancing our comprehension of this complex, significant, and interesting topic.

References

- Adams, R. (2016). “Women on boards: The superheroes of tomorrow?” *The Leadership Quarterly*. 27(3): 371–386.
- Adams, R. B., A. C. Akyol, and P. Verwijmeren (2018). “Director skill sets”. *Journal of Financial Economics*. 130(3): 641–662.
- Adams, R. B. and D. Ferreira (2009). “Women in the boardroom and their impact on governance and performance”. *Journal of Financial Economics*. 94: 291–309.
- Adams, R. B. and F. Funk (2012). “Beyond the glass ceiling: Does gender matter?” *Management Science*. 58(2): 219–235.
- Afzali, M., H. Silvola, and S. Terjesen (2022). “Social capital and board gender diversity”. *Corporate Governance: An International Review*. 30(4): 461–481.
- Alkalbani, N., F. Cuomo, and C. Mallin (2019). “Gender diversity and say-on-pay: Evidence from UK remuneration committees”. *Corporate Governance: An International Review*. 27(5): 378–400.
- Allemand, I., J. Bédard, B. Brullebaut, and J. Deschênes (2022). “Role of old boys’ networks and regulatory approaches in selection processes for female directors”. *British Journal of Management*. 33(2): 784–805.
- Almandoz, J. and A. Tilcsik (2016). “When experts become liabilities: Domain experts on boards and organizational failure”. *Academy of Management Journal*. 59(4): 1124–1149.

- An, H., C. R. Chen, Q. Wu, and T. Zhang (2021). “Corporate innovation: Do diverse boards help?” *Journal of Financial and Quantitative Analysis*. 56(1): 155–182.
- Antonakis, J. D. (2017). “On doing better science: From thrill of discovery to policy implications”. *The Leadership Quarterly*. 28(1): 5–21. DOI: [10.1016/j.leaqua.2017.01.006](https://doi.org/10.1016/j.leaqua.2017.01.006).
- Antonakis, J., S. Bendahan, P. Jacquart, and R. Lalive (2010). “On making causal claims: A review and recommendations”. *The Leadership Quarterly*. 21(6): 1086–1120.
- Antonakis, J., S. Bendahan, P. Jacquart, and R. Lalive (2014). “Causality and endogeneity: Problems and solutions”. In: *The Oxford Handbook of Leadership and Organizations*. Ed. by D. V. Day. Oxford: Oxford University Press. 93–117.
- Ararat, M., M. Aksu, and A. T. Cetin (2015). “How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms”. *Corporate Governance: An International Review*. 23(2): 83–103.
- Arnaboldi, F., B. Casu, A. Gallo, E. Kalotychou, and A. Sarkyshyan (2021). “Gender diversity and bank misconduct”. *Journal of Corporate Finance*. 71: 101834.
- Askarzadeh, F., K. Lewellyn, H. Islam, and K. Moghaddam (2022). “The effect of female board representation on the level of ownership in foreign acquisitions”. *Corporate Governance: An International Review*. 30(5): 608–626.
- Atif, M., M. Hossain, S. Alam, and M. Goergen (2021). “Does board gender diversity affect renewable energy consumption?” *Journal of Corporate Finance*. 66: 1016–1055.
- Badolato, D., C. Donelson, and M. Ege (2014). “Audit committee financial expertise and earnings management: The role of status”. *Journal of Accounting and Economics*. 58(2): 208–230.
- Bao, S., S. Fainshmidt, A. Nair, and V. Vranceva (2014). “Women in upper echelons of management”. *British Journal of Management*. 25(2): 388–405.
- Baran, L. and A. Forst (2015). “Disproportionate insider control and board of director characteristics”. *Journal of Corporate Finance*. 35: 62–80.

- Baron, R. M. and D. A. Kenny (1986). "The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations". *Journal of Personality and Social Psychology*. 51(6): 1173–1182.
- Bazel-Shoham, O., S. M. Lee, M. J. Rivera, and A. Shoham (2020). "Impact of the female board members and gaps in linguistic gender marking on cross-border M&A". *Journal of World Business*. 55(2): 100909.
- Beckman, C. M., C. Schoonhoven, R. M. Rottner, and S. Kim (2014). "Relational Pluralism in De Novo organizations: Boards of directors as bridges or barriers to diverse alliance Portfolios?" *Academy of Management Journal*. 57: 460–483.
- Bédard, J., D. Coulombe, and L. Courteau (2008). "Audit committee, underpricing of IPOs, and accuracy of management earnings forecasts". *Corporate Governance: An International Review*. 16(6): 519–535.
- Berger, A. N., T. Kick, and K. Schaeck (2014). "Executive board composition and bank risk taking". *Journal of Corporate Finance*. 28: 48–65.
- Bernile, G., V. Bhagwat, and S. Yonker (2018). "Board diversity, firm risk, and corporate policies". *Journal of Financial Economics*. 127(3): 588–612.
- Billings, M. B., A. Klein, and Y. C. Shi (2022). "Investors' response to the #MeToo movement: Does corporate culture matter?" *Review of Accounting Studies*. 27: 897–937.
- Blau, P. M. (1977). *Inequality and Heterogeneity*. Glencoe, IL: Free Press.
- Bliese, P. D., D. J. Schepker, S. M. Essman, and R. E. Ployhart (2020). "Bridging methodological divides between macro-and microresearch: Endogeneity and methods for panel data". *Journal of Management*. 46(1): 70–99.
- Boehmer, U., N. R. Kressin, D. R. Berlowitz, C. L. Christiansen, L. E. Kazis, and J. A. Jones (2002). "Self-reported vs. administrative race/ethnicity data and study results". *American Journal of Public Health*. 92(9): 1471–1472.

- Boutchkova, M., A. Gonzalez, B. G. M. Main, and V. Sila (2021). "Gender diversity and the spillover effects of women on boards". *Corporate Governance: An International Review*. 29(1): 2–21.
- Brammer, S., A. Millington, and S. Pavelin (2009). "Corporate reputation and women on the board". *British Journal of Management*. 20: 17–29.
- Briano-Turrent, G. C. (2022). "Female representation on boards and corporate ethical behavior in Latin American companies". *Corporate Governance: An International Review*. 30(1): 80–95.
- Burns, N., K. Minnick, and A. K. Smith (2021). "The role of directors with related supply chain industry experience in corporate acquisition decisions". *Journal of Corporate Finance*. 67: 101911.
- Byron, K. and C. Post (2016). "Women on boards of directors and corporate social performance: A meta-analysis". *Corporate Governance: An International Review*. 24(4): 428–442.
- Cannella Jr., A. A., C. D. Jones, and M. C. Withers (2015). "Family versus lone founder controlled public corporations: Social identity theory and boards". *Academy of Management Journal*. 58(2): 436–459.
- Carcello, J. V., D. R. Hermanson, T. L. Neal, and R. A. Riley (2002). "Board characteristics and audit fees". *Contemporary Accounting Research*. 19(3): 365–384.
- Cardillo, G., E. Onali, and G. Torluccio (2021). "Does gender diversity on banks' boards matter? Evidence from public bailouts". *Journal of Corporate Finance*. 71: 101560.
- Carpenter, M. A. and J. D. Westphal (2001). "The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making". *The Academy of Management Journal*. 44(4): 639–660.
- Certo, S. T., J. R. Busenbark, H. S. Woo, and M. Semadeni (2016). "Sample selection bias and Heckman models in strategic management research". *Strategic Management Journal*. 37(13): 2639–2657.
- Chakravarty, S. and P. Hedge (2021). "The joint entrance exam, overconfident directors and firm performance". *Journal of Corporate Finance*. 56: 298–318.

- Chan, K. C. and J. Li (2008). "Audit committee and firm value: Evidence on outside top executives as expert-independent directors". *Corporate Governance: An International Review*. 16(1): 16–31.
- Chang, C.-H. and Q. Wu (2021). "Board networks and corporate innovation". *Management Science*. 67(6): 3168–3654.
- Chang, E. H., K. L. Milkman, D. Chugh, and M. Akinola (2019). "Diversity thresholds: How social norms, visibility, and scrutiny relate to group composition". *Academy of Management Journal*. 62(1): 144–171.
- Chen, C.-L. (2014). "Board capital, CEO power and R&D investment in electronics firms". *Corporate Governance: An International Review*. 22(5): 422–436.
- Chen, G., C. Crossland, and S. Huang (2016). "Female board representation and corporate acquisition intensity". *Strategic Management Journal*. 37: 303–313.
- Chen, K. D. and W. R. Guay (2020). "Busy directors and shareholder satisfaction". *Journal of Financial and Quantitative Analysis*. 55(7): 2181–2210.
- Cheng, S., R. Felix, and R. Indjejikian (2019). "Spillover effects of internal control weakness disclosures: The role of audit committees and board connections". *Contemporary Accounting Research*. 36(2): 934–957.
- Cheng, Z., A. Rai, F. Tian, and S. Xin Xu (2021). "Social learning in information technology investment: The role of board interlocks". *Management Science*. 67(1): 547–576.
- Chizema, A., D. S. Kamuriwo, and Y. Shinozawa (2015). "Women on corporate boards around the world: Triggers and barriers". *The Leadership Quarterly*. 26(6): 1051–1065.
- Chychyla, R., A. J. Leone, and M. Minutti-Meza (2019). "Complexity of financial reporting standards and accounting expertise". *Journal of Accounting and Economics*. 67(1): 226–253.
- Connelly, B. L., J. L. Johnson, L. Tihanyi, and A. E. Ellstrand (2011). "More than adopters: Competing influences in the interlocking directorate". *Organization Science*. 22(3): 688–703.

- Corwin, E. S., H. Loncarich, and J. W. Ridge (2022). “What’s it like inside the hive? Managerial discretion drives TMT gender diversity of women-led firms”. *Journal of Management*. 48(4): 1003–1034.
- Cumming, D. and T. Y. Leung (2021). “Board diversity and corporate innovation: Regional demographics and industry context”. *Corporate Governance: An International Review*. 29(3): 277–296.
- Cuomo, F., C. Mallin, and A. Zattoni (2016). “Corporate governance codes: A review and research agenda”. *Corporate Governance: An International Review*. 24(3): 222–241.
- Daily, C. M. and D. R. Dalton (2003). “Are director equity policies exclusionary?” *Business Ethics Quarterly*. 13(4): 415–432.
- Dalton, D. R., C. M. Daily, A. E. Ellstrand, and J. L. Johnson (1998). “Meta-analytic reviews of board composition, leadership structure, and financial performance”. *Strategic Management Journal*. 19: 269–290.
- Dalton, D. R., C. M. Daily, J. L. Johnson, and A. E. Ellstrand (1999). “Number of directors and financial performance: A meta-analysis”. *Academy of Management Journal*. 42: 674–686.
- De Massis, A., F. Muñoz-Bullón, M. J. Sanchez-Bueno, P. Velasco, and S. Vismara (2024). “Executive gender and firm leverage decisions: The role of firm ownership and governance”. *Journal of Business Research*. 179: 114700.
- Delis, M. D., C. Gaganis, I. Hasan, and F. Pasiouras (2017). “The effect of board directors from countries with different genetic diversity levels on corporate performance”. *Management Science*. 63(1): 231–249.
- Dodge, Y. (2006). *The Oxford Dictionary of Statistical Terms*. Oxford: Oxford University Press.
- Eckbo, E., K. Nygaard, and K. S. Thorburn (2022). “Valuation effects of Norway’s board gender-quota law revisited”. *Management Science*. 68(6): 4112–4134.
- Erhardt, N. L., J. D. Werbel, and C. B. Shrader (2003). “Board of director diversity and firm financial performance”. *Corporate Governance: An International Review*. 11(2): 102–111.
- Evgeniou, T. and T. Vermaelen (2017). “Share buybacks and gender diversity”. *Journal of Corporate Finance*. 45: 669–686.

- Fama, E. and M. C. Jensen (1983). "Separation of ownership and control". *Journal of Law and Economics*. 26: 301–325.
- Farrell, K. A. and P. L. Hersch (2005). "Additions to corporate boards: The effect of gender". *Journal of Corporate Finance*. 11: 85–106.
- Feldman, E. R. and C. A. Montgomery (2015). "Are incentives without expertise sufficient? Evidence from Fortune 500 firms". *Strategic Management Journal*. 36: 113–122.
- Feng, H. and J. Z. Xiao (2022). "Board change and firm risk: Do new directors mean unstable corporate policies?" *Corporate Governance: An International Review*. 30(2): 212–231.
- Ferrari, G., V. Ferraro, P. Profeta, and C. Pronzato (2022). "Do board gender quotas matter? Selection, performance, and stock market effects". *Management Science*. 68(8): 5618–5643.
- Field, L. C., M. E. Souther, and A. S. Yore (2020). "At the table but can not break through the glass ceiling: Board leadership positions elude diverse directors". *Journal of Financial Economics*. 137(3): 787–814.
- Firoozi, M. and L. Keddie (2022). "Geographical diversity among directors and corporate social responsibility". *British Journal of Management*. 33: 828–863.
- Floyd, E. and J. A. List (2016). "Using field experiments in accounting and finance". *Journal of Accounting Research*. 54(2): 437–475.
- Forbes, D. P. and F. J. Milliken (1999). "Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups". *Academy of Management Review*. 24: 489–505.
- Gabaldon, P., C. de Anca, R. Mateos de Cabo, and R. Gimeno (2016). "Searching for women on boards: An analysis from the supply and demand perspective". *Corporate Governance: An International Review*. 24: 371–385.
- Geiler, P. and L. Renneboog (2015). "Are female top managers really paid less?" *Journal of Corporate Finance*. 35: 345–369.
- Geletkanycz, M. (2020). "Social movement spillover: Barriers to board gender diversity posed by contemporary governance reform". *The Leadership Quarterly*. 31(6): 1014–1038.

- Giannetti, M. and M. Zhao (2019). “Board ancestral diversity and firm-performance volatility”. *Journal of Financial & Quantitative Analysis*. 54(3): 1117–1155.
- Gilani, U., K. Keasey, and K. Vallascas (2021). “Board financial expertise and the capital decisions of US banks”. *Journal of Corporate Finance*. 72: 102091.
- Ginalski, S. (2022). “How women broke into the old boys’ corporate network in Switzerland”. *Business History*. 1–22.
- Ginalski, S., E. Salvaj, S. Pak, and L. Taksa (2023). *Women in Corporate Networks: An Introduction*. Business History. 1–22.
- Gow, I. D., A. S. Wahid, and G. Yu (2018). “Managing reputation: Evidence from biographies of corporate directors”. *Journal of Accounting & Economics*. 66(2/3): 448–469.
- Gregory, A., E. Jeanes, R. Tharyan, and I. Tonks (2013). “Does the stock market gender stereotype corporate boards? Evidence from the market’s reaction to directors’ trades”. *British Journal of Management*. 24: 174–190.
- Griffin, D., K. Li, and T. Xu (2021). “Board gender diversity and corporate innovation: International evidence”. *Journal of Financial and Quantitative Analysis*. 56(1): 123–154.
- Grosvold, J. and S. Brammer (2011). “National institutional systems as antecedents of female board representation: An empirical study”. *Corporate Governance: An International Review*. 19(2): 116–135.
- Grove, H., L. Patelli, L. M. Victoravich, and P. Xu (2011). “Corporate governance and performance in the wake of the financial crisis: Evidence from US commercial banks”. *Corporate Governance: An International Review*. 19(5): 418–436.
- Guest, P. M. (2019). “Does board ethnic diversity impact board monitoring outcomes?” *British Journal of Management*. 30: 53–74.
- Gupta, A., A. J. Wowak, and W. Boeker (2022). “Corporate directors as heterogeneous network pipes: How director political ideology affects the interorganizational diffusion of governance practices”. *Strategic Management Journal*. 43(8): 1469–1498.

- Hagendorff, J., M. Collins, and K. Keasey (2010). "Board monitoring, regulation, and performance in the banking industry: Evidence from the market for corporate control". *Corporate Governance: An International Review*. 18(5): 381–395.
- Hambrick, D. C. and P. A. Mason (1984). "Upper echelons: The organization as a reflection of its top managers". *Academy of Management Review*. 9(2): 193–206.
- Harrison, D. A. and K. J. Klein (2007). "What's the difference? Diversity constructs as separation, variety, or disparity in organizations". *Academy of Management Review*. 32(4): 1199–1228.
- Harrison, D. A., K. H. Price, and M. P. Bell (1998). "Beyond relational demography: Time and the effects of surface- and deep-level diversity on work group cohesion". *Academy of Management Journal*. 41: 96–107.
- Harrison, D. A., K. H. Price, J. H. Gavin, and A. T. Florey (2002). "Time, teams, and task performance: Changing effects of surface- and deep-level diversity on group functioning". *Academy of Management Journal*. 45(5): 1029–1045.
- Harrison, D. A. and H.-P. Sin (2006). "What is diversity and how should it be measured?" In: *Handbook of Workplace Diversity*. Ed. by A. M. Konrad, P. Prasad, and J. K. Pringle. London: Sage. 191–216.
- Haynes, K. T. and A. Hillman (2010). "The effect of board capital and CEO power on strategic change". *Strategic Management Journal*. 31(11): 1145–1163.
- Haynes, K. T., A. Zattoni, B. Boyd, and A. Minichilli (2019). "Figureheads or potentates? CEO power and board oversight in the context of Sarbanes Oxley". *Corporate Governance: An International Review*. 27(6): 402–426.
- Herdhayinta, H., J. Lau, and C. Hsin-Han Shen (2021). "Family female directors versus non-family female directors: Effects on firm value and dividend payouts in an extreme institutional environment". *British Journal of Management*. 32(4): 969–987.
- Hermalin, B. E. and M. S. Weisbach (2003). "Boards of directors as an endogenously determined institution: A survey of the economic literature". *Economic Policy Review*. 9(1): 7–26.

- Hill, A. D., S. G. Johnson, L. M. Greco, E. H. O'Boyle, and S. L. Walter (2021). "Endogeneity: A review and agenda for the methodology-practice divide affecting micro and macro research". *Journal of Management*. 47(1): 105–143.
- Hillman, A. J., A. A. Cannella Jr., and I. C. Harris (2002). "Women and racial minorities in the boardroom: How do directors differ?" *Journal of Management*. 28(6): 747–763.
- Hillman, A. J. and T. Dalziel (2003). "Boards of directors and firm performance: Integrating agency and resource dependence perspectives". *Academy of Management Review*. 28(3): 383–396.
- Hillman, A. J., G. Nicholson, and C. Shropshire (2008). "Directors' multiple identities, identification, and board monitoring and resource provision". *Organization Science*. 19(3): 441–456.
- Hillman, A. J., C. Shropshire, and A. Cannella (2007). "Organizational predictors of women on corporate boards". *Academy of Management Journal*. 50: 941–952.
- Hoitash, U. and A. Mkrtchyan (2022). "Internal governance and outside directors' connections to non-director executives". *Journal of Accounting and Economics*. 73(1): 101436.
- Huang, S. and G. Hilary (2018). "Zombie board: Board tenure and firm performance". *Journal of Accounting Research*. 56(4): 1285–1329.
- Hudson, K. and R. E. Morgan (2022). "Ideological homophily in board composition and interlock networks: Do liberal directors inhibit viewpoint diversity?" *Corporate Governance: An International Review*. 30(3): 272–289.
- Iannotta, M., M. Gatti, and M. Huse (2016). "Institutional complementarities and gender diversity on boards: A configurational approach". *Corporate Governance: An International Review*. 24: 406–427.
- Iliev, P. and L. Roth (2018). "Learning from directors' foreign board experiences". *Journal of Corporate Finance*. 51: 1–19.
- Jackson, S. E., A. Joshi, and N. L. Erhardt (2003). "Recent research on team and organizational diversity: SWOT analysis and implications". *Journal of Management*. 29: 801–830.

- Jackson, S. E., K. E. May, and K. Whitney (1995). "Understanding the dynamics of diversity in decision-making teams". In: *Team Effectiveness and Decision Making in Organizations*. Ed. by R. A. Guzzo and E. Salas. San Francisco: Jossey-Bass. 204–261.
- Joh, S. J. and J. Y. Jung (2018). "When do firms benefit from affiliated outside directors? Evidence from Korea". *Corporate Governance: An International Review*. 26(6): 397–413.
- Johnson, S. G., K. Schnatterly, and A. D. Hill (2013). "Board composition beyond independence: Social capital, human capital, and demographics". *Journal of Management*. 39(1): 232–262.
- Joshi, A. and H. Roh (2009). "The role of context in work team diversity research: A meta-analytic review". *Academy of Management Journal*. 52(3): 599–627.
- Judge, W. Q. and T. Talaulicar (2017). "Board involvement in the strategic decision making process: A comprehensive review". *Annals of Corporate Governance*. 2(2): 51–169.
- Kaczmarek, S., S. Kimino, and A. Pye (2012). "Antecedents of board composition: The role of nomination committees". *Corporate Governance: An International Review*. 20: 474–489.
- Kang, J., S. Kim, and S. Oh (2022). "Does board demographic diversity enhance cognitive diversity and monitoring?" *The Accounting Review*. 97(6): 385–415.
- Kara, A., A. Nanteza, A. Ozkan, and Y. Yiliz (2022). "Board gender diversity and responsible banking during the COVID-19 pandemic". *Journal of Corporate Finance*. 74: 102213.
- Karavitis, P., S. Kokas, and S. Tsoukas (2021). "Gender board diversity and the cost of bank loans". *Journal of Corporate Finance*. 71: 101804.
- Kennedy, P. (2008). *A Guide to Econometrics*. Malden: Blackwell.
- Kesner, I. (1988). "Directors' characteristics and committee membership: An investigation of type, occupation, tenure and gender". *The Academy of Management Journal*. 31(1): 66–84.
- Kim, K., E. Mauldin, and S. Patro (2014). "Outside directors and board advising and monitoring performance". *Journal of Accounting and Economics*. 57(2–3): 110–131.

- Kim, O., Y. F. Kuang, and B. Qin (2020). "Female representation on boards and CEO performance induced turnover: Evidence from Russia". *Corporate Governance: An International Review*. 28(3): 235–260.
- Kirkman, B. L., K. B. Lowe, and C. B. Gibson (2017). "A retrospective on culture's consequences: The 35-year journey". *Journal of International Business Studies*. 48(1): 12–29.
- Kirsch, A. (2018). "The gender composition of corporate boards: A review and research agenda". *The Leadership Quarterly*. 29(2): 346–364.
- Krishnan, J., Y. Wen, and W. Zhao (2011). "Legal expertise on corporate audit committees and financial reporting quality". *The Accounting Review*. 86(6): 2099–2130.
- Kumar, P. and A. Zattoni (2016). "Corporate governance, board gender diversity and firm performance". *Corporate Governance: An International Review*. 24(4): 388–389.
- Lai, K. M. Y., B. Srinidhi, F. A. Gul, and J. S. L. Tsui (2017). "Board gender diversity, auditor fees, and auditor choice". *Contemporary Accounting Research*. 34(3): 1681–1714.
- Lau, D. C. and J. K. Murnighan (1998). "Demographic diversity and faultlines: The compositional dynamics of organizational groups". *Academy of Management Review*. 23(2): 325–340.
- Lee, J., K. J. Lee, and N. J. Nagarajan (2014). "Birds of a feather: Value implications of political alignment between top management and directors". *Journal of Financial Economics*. 112(2): 232–250.
- Li, N. and A. S. Wahid (2018). "Director tenure diversity and board monitoring effectiveness". *Contemporary Accounting Research*. 35(3): 1363–1394.
- Lin, K. Z., L. F. Mills, F. Zhang, and Y. Li (2018). "Do political connections weaken tax enforcement effectiveness?" *Contemporary Accounting Research*. 35(4): 1941–1972.
- Liu, C. (2018). "Are women greener? Corporate gender diversity and environmental violations". *Journal of Corporate Finance*. 52: 118–142.
- Liu, Y., Z. Wei, and F. Xie (2014). "Do women directors improve firm performance in China?" *Journal of Corporate Finance*. 28: 169–184.

- Luo, J., J. Chen, and D. Chen (2021). “Coming back and giving back: Transposition, institutional actors, and the paradox of peripheral influence”. *Administrative Science Quarterly*. 66(1): 133–176.
- Marcel, J. J. and A. P. Cowen (2014). “Cleaning house or jumping ship? Understanding board upheaval following financial fraud”. *Strategic Management Journal*. 35(6): 926–937.
- Martínez-García, I., S. Terjesen, and S. Gómez-Ansón (2022). “Board gender diversity codes, quotas and threats of supranational legislation: Impact on director characteristics and corporate outcomes”. *British Journal of Management*. 33: 753–783.
- Martins, L. L. and W. Sohn (2022). “How does diversity affect team cognitive processes? Understanding the cognitive pathways underlying the diversity dividend in teams”. *Academy of Management Annals*. 16(1): 134–178.
- Mateos de Cabo, R., P. Grau, R. Gimeno, and P. Gabaldón (2022). “Shades of power: Network links with gender quotas and corporate governance codes”. *British Journal of Management*. 33: 703–723.
- McDonald, M. L. and J. D. Westphal (2013). “Access denied: Low mentoring of women and minority first-time directors and its negative effect on appointments to additional boards”. *Academy of Management Journal*. 56(4): 1169–1198.
- McGuinness, P. B., J. P. Vieito, and M. Wang (2017). “CSR performance in China: The role of board gender and foreign ownership”. *Journal of Corporate Finance*. 42: 75–99.
- McNulty, T., A. Zattoni, and T. Douglas (2013). “Developing corporate governance research through qualitative methods: A review of previous studies”. *Corporate Governance: An International Review*. 21(2): 183–198.
- Miller, T. and M. Triana (2009). “Demographic diversity in the boardroom: Mediators of the board diversity – Firm performance relationship”. *Journal of Management Studies*. 46(5): 755–786.
- Milliken, F. J. and L. L. Martins (1996). “Searching for common threads: Understanding the multiple effects of diversity in organizational groups”. *Academy of Management Review*. 21(2): 402–433.

- Minichilli, A., A. Zattoni, and F. Zona (2009). "Making boards effective: An empirical examination of board task performance". *British Journal of Management*. 20(1): 55–74.
- Mitra, A., C. Post, and S. Sauerwald (2021). "Evaluating board candidates: A threat-contingency model of shareholder dissent against female director candidates". *Organization Science*. 32(1): 86–110.
- Mulcahy, M. and C. Linehan (2014). "Females and precarious board positions: Further evidence of the glass cliff". *British Journal of Management*. 25(3): 425–438.
- Nadeem, M. (2020). "Does board gender diversity influence voluntary disclosure of intellectual capital in initial public offering prospectuses? Evidence from China". *Corporate Governance: An International Review*. 28: 100–118.
- Naumovska, I., G. Wernicke, and E. J. Zajac (2020). "Last to come and last to go? The complex role of gender and ethnicity in the reputational penalties for directors linked to corporate fraud". *Academy of Management Journal*. 63(3): 881–902.
- Nekhili, M., M. Bennouri, and H. Nagati (2022). "Do board gender quotas benefit minority shareholders? An illustration through related-party transactions". *British Journal of Management*. 33(2): 724–752.
- Nielsen, S. and M. Huse (2010). "The contribution of women on boards of directors: Going beyond the surface". *Corporate Governance: An International Review*. 18(2): 136–148.
- Nkomo, S. M., M. P. Bell, L. M. Roberts, A. Joshi, and S. M. B. Thatcher (2019). "Diversity at a critical juncture: New theories for a complex phenomenon". *Academy of Management Review*. 44(3): 498–517.
- Oehmichen, J., S. Schrapf, and M. Wolff (2017). "Who needs experts most? Board industry expertise and strategic change—A contingency perspective". *Strategic Management Journal*. 38(2): 645–656.
- Omer, T. C., M. K. Shelley, and F. M. Tice (2020). "Do director networks matter for financial reporting quality? Evidence from audit committee connectedness and restatements". *Management Science*. 66(8): 3361–3388.

- Ortiz-de-Mandojana, N., J. A. Aragón-Correa, J. Delgado-Ceballos, and V. Ferrón-Vílchez (2012). “The effect of director interlocks on firms’ adoption of proactive environmental strategies”. *Corporate Governance: An International Review*. 20: 164–178.
- Pérez-Calero, L., B. Larrañeta, and M. Wright (2019). “Initial public offering valuation and prior shared experience in the boardroom of threshold ventures: A study of industry effects”. *Corp. Govern. Int. Rev.* 27: 322–340.
- Peterson, C. A., J. Philpot, and K. C. O’Shaughnessy (2007). “African-American diversity in the boardrooms of the US Fortune 500: Director presence, expertise and committee membership”. *Corporate Governance: An International Review*. 15(4): 558–575.
- Pfeffer, J. (1983). “Organizational demography”. In: *Research in Organizational Behavior*. Ed. by L. L. Cummings and B. M. Staw. Vol. 5. Greenwich: JAI Press. 299–357.
- Pfeffer, J. and G. R. Salancik (1978). *The External Control of Organizations: A Resource Dependency Perspective*. New York: Harper and Row.
- Post, C. and K. Byron (2015). “Women on boards and firm financial performance: A meta-analysis”. *Academy of Management Journal*. 58(5): 1546–1571.
- Pugliese, A., P. Bezemer, A. Zattoni, M. Huse, F. Van Der Bosch, and H. Volberda (2009). “Boards of directors’ contribution to strategy: A literature review and research agenda”. *Corporate Governance: An International Review*. 17(3): 292–306.
- Pugliese, A., A. Zattoni, B. Buchetti, and F. A. Arduino (2023). “The methodological challenges to opening up the black box of boardroom dynamics”. In: *Handbook of Research Methods in Corporate Governance*. Ed. by N. Cucari, S. Yamak, S. E. De Falco, and B. Lee. Cheltenham: Edward Elgar. 268–290.
- Ravasi, D. and A. Zattoni (2006). “Exploring the political side of board involvement in strategy: A study of mixed-ownership institutions”. *Journal of Management Studies*. 43(8): 1673–1704.
- Rhee, M. and J.-H. Lee (2008). “The signals outside directors send to foreign investors: Evidence from Korea”. *Corporate Governance: An International Review*. 16: 41–51.

- Rindova, V. P. (1999). "What corporate boards have to do with strategy: A cognitive perspective". *Journal of Management Studies*. 36: 953–975.
- Riordan, C. M. (2000). "Relational demography within groups: Past developments, contradictions, and new directions". *Research in Personnel and Human Resources Management*. 19: 131–173.
- Ruigrok, W., S. Peck, and S. Tacheva (2007). "Nationality and gender diversity on Swiss corporate boards". *Corporate Governance: An International Review*. 15(4): 546–557.
- Schabus, M. (2022). "Do director networks help managers forecast better?" *The Accounting Review*. 97(2): 397–426.
- Schnatterly, K., F. Calvano, and J. P. Berns (2021). "The effects of board expertise-risk misalignment and subsequent strategic board reconfiguration on firm performance". *Strategic Management Journal*. 42(11): 2162–2191.
- Schwartz-Ziv, M. (2017). "Gender and board activeness: The role of a critical mass". *Journal of Financial and Quantitative Analysis*. 52(2): 751–780.
- Sidhu, J. S., Y. Feng, H. W. Volberda, and F. A. J. Van Den Bosch (2021). "In the shadow of social stereotypes: Gender diversity on corporate boards, board chair's gender and strategic change". *Organization Studies*. 42(11): 1677–1698.
- Souther, M. E. (2018). "The effects of internal board networks: Evidence from closed-end funds". *Journal of Accounting and Economics*. 66(1): 266–290.
- Srinidhi, B., F. A. Gul, and J. S. L. Tsui (2011). "Female directors and earnings quality". *Contemporary Accounting Research*. 28(5): 1610–1644.
- Sundaramurthy, C., K. Pukthuanthong, and Y. Kor (2014). "Positive and negative synergies between the CEO's and the corporate board's human and social capital: A study of biotechnology firms". *Strategic Management Journal*. 35: 845–868.
- Taras, V., B. L. Kirkman, and P. Steel (2010). "Examining the impact of culture's consequences: A three-decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions". *Journal of Applied Psychology*. 95(3): 405.

- Tasheva, S. and A. J. Hillman (2019). "Integrating diversity at different levels: Multilevel human capital, social capital, and demographic diversity and their implications for team effectiveness". *Academy of Management Review*. 44(4): 746–765.
- Terjesen, S., R. Sealy, and V. Singh (2009). "Women directors on corporate boards: A review and research agenda". *Corporate Governance: An International Review*. 17(3): 320–337.
- Thatcher, S. M. B. and P. C. Patel (2012). "Group faultlines: A review, integration, and guide to future research". *Journal of Management*. 38(4): 969–1009.
- Tian, J., J. Haleblian, and N. Rajagopalan (2011). "The effects of board human and social capital on investor reactions to new CEO selection". *Strategic Management Journal*. 32: 731–747.
- Triana, M., T. L. Miller, and T. M. Trzebiatowski (2014). "The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change". *Organization Science*. 25(2): 609–632.
- Tsai, C.-Y., J. D. Marshall, A. Choudhury, A. Serban, Y. T. Y. Hou, M. F. Jung, S. D. Dionne, and F. J. Yammarino (2022). "Human-robot collaboration: A multilevel and integrated leadership framework". *The Leadership Quarterly*. DOI: [10.1016/j.leafqua.2021.101594](https://doi.org/10.1016/j.leafqua.2021.101594).
- Tuggle, C. S., K. Schnatterly, and R. A. Johnson (2010). "Attention patterns in the boardroom: How board composition and processes affect discussion of entrepreneurial issues". *Academy of Management Journal*. 53(3): 550–571.
- Tuggle, C. S., D. G. Sirmon, C. J. Borgholthaus, L. Bierman, and A. E. Bass (2022). "From seats at the table to voices in the discussion: Antecedents of underrepresented director participation in board meetings". *Journal of Management Studies*. 59(5): 1253–1283.
- Tuschke, A., W. G. Sanders, and E. Hernandez (2014). "Whose experience matters in the boardroom? The effects of experiential and vicarious learning on emerging market entry". *Strategic Management Journal*. 35(3): 398–418.

- Van Veen, K. and J. Elbertsen (2008). "Governance regimes and nationality diversity in corporate boards: A comparative study of Germany, the Netherlands and the United Kingdom". *Corporate Governance: An International Review*. 16: 386–399.
- Vandebeek, A., W. Voordeckers, J. Huybrechts, and F. Lambrechts (2021). "Corporate performance and CEO dismissal: The role of social category faultlines". *Corporate Governance: An International Review*. 29(5): 436–460.
- Veltrop, D. B., N. Hermes, T. J. B. M. Postma, and J. de Haan (2015). "A Tale of two factions: Why and when factional demographic faultlines hurt board performance". *Corporate Governance: An International Review*. 23: 145–160.
- Veltrop, D. B., E. Molleman, R. B. H. Hooghiemstra, and H. Van Ees (2017). "Who's the boss at the top? A micro-level analysis of director expertise, status and conformity within boards". *Journal of Management Studies*. 54(7): 1079–1110.
- Westphal, J. D. and I. Stern (2007). "Flattery will get you everywhere (especially if you are a male Caucasian): How ingratiation, boardroom behavior, and demographic minority status affect additional board appointments at U.S. companies". *Academy of Management Journal*. 50(2): 267–288.
- White, J. T., T. Woidtke, H. A. Black, and R. L. Schweitzer (2014). "Appointments of academic directors". *Journal of Corporate Finance*. 28: 135–151.
- Williams, K. Y. and C. A. O'Reilly III (1998). "Demography and diversity in organizations: A review of 40 years of research". *Research in Organizational Behavior*. 20: 77–140.
- Wilson, N., M. Uddin, and M. Wright (2022). "Exporting by private equity-backed portfolio companies". *British Journal of Management*. 33: 266–285.
- Wooldridge, J. M. (2010). *Econometric Analysis of Cross Section and Panel Data*. Boston: MIT Press.
- Yang, P., J. Riepe, K. Moser, K. Pull, and S. Terjesen (2019). "Women directors, firm performance, and firm risk: A causal perspective". *The Leadership Quarterly*. 30(5): 101297.

- Yao, T. (2023). “Antecedents of top management team and board gender diversity: A review and an agenda for research”. *Corporate Governance: An International Review*. 31(1): 227–248.
- Ye, D., J. Denga, Y. Liub, S. H. Szewczyk, and X. Chend (2019). “Does board gender diversity increase dividend payouts? Analysis of global evidence”. *Journal of Corporate Finance*. 58: 1–26.
- Zattoni, A. (2020). *Corporate Governance – How to Design Good Companies*. Milano: Bocconi University Press.
- Zattoni, A., E. Dedoulis, S. Leventis, and H. Van Ees (2020). “Corporate governance and institutions – A review and research agenda”. *Corporate Governance: An International Review*. 28(6): 465–487.
- Zattoni, A., S. Leventis, H. Van Ees, and S. De Masi (2023). “Board diversity’s antecedents and consequences: A review and research agenda”. *Leadership Quarterly*. 34(1): 1–14.
- Zattoni, A. and A. Pugliese (2019). “Opening the black box of boards of directors: Taking stock of recent studies on board dynamics”. In: *Research Handbook on Boards of Directors*. Ed. by J. Gabrielsson, W. Khlif, and S. Yamak. Cheltenham: Edward Elgar. 102–117.
- Zattoni, A. and A. Pugliese (2021). “Corporate governance research in the wake of a systemic crisis: Lessons and opportunities from the COVID-19 pandemic”. *Journal of Management Studies*. 58(5): 1405–1410.
- Zelechowski, D. D. and D. Bilimoria (2004). “Characteristics of women and men corporate inside directors in the US”. *Corporate Governance: An International Review*. 12(3): 337–342.
- Zhu, D. H. (2013). “Group polarization on corporate boards: Theory and evidence on board decisions about acquisition premiums”. *Strategic Management Journal*. 39(7): 800–822.
- Zhu, D. H. and W. Shen (2016). “Why do some outside successions fare better than others? The role of outside CEOs’ prior experience with board diversity”. *Strategic Management Journal*. 37(13): 2695–2708.
- Zona, F., A. Zattoni, and A. Minichilli (2013). “A contingency model of boards of directors and firm innovation: The moderating role of firm size”. *British Journal of Management*. 24(3): 299–315.

- Zorn, M. L., K. DeGhetto, D. J. Ketchen, and J. G. Combs (2020). “The impact of hiring directors’ choice-supportive bias and escalation of commitment on CEO compensation and dismissal following poor performance: A multimethod study”. *Strategic Management Journal*. 41(2): 308–339.