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Corporate Governance and Diversity in Boardrooms

Empirical Insights into the Impact on Firm Performance

Barbara Sveva Magnanelli
Luca Pirolo

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"To my grandmothers, who will always be in my heart and my memories.
To my parents, who always allowed me to flight high"

—Barbara Sveva Magnanelli

"To my beloved kids, Tommaso, Riccardo and Giacomo, the joy of my life"

—Luca Pirolo

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Contents

Abbreviations and Acronyms

BoD	Board of Directors
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
EBIT	Earnings Before Interests and Taxes
EU	European Union
IPO	Initial Public Offering
M&A	Merger and Acquisition
OECD	Organization for Economic Co-operation and Development
ROA	Return on Assets
ROE	Return on Equity
S&P	Standard & Poor
SEC	Securities and Exchange Commission
SOX	Sarbanes-Oxley Act
UK	United Kingdom
USA	United States of America

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CHAPTER 1

Introduction

Barbara Sveva Magnanelli and Luca Pirolo

Abstract This introduction aims at offering a synopsis of the most relevant topics proposed in this book. This volume is composed by two main parts. The first one (Chapters 2, 3, and 4) presents an extensive review of the literature on (i) the board, (ii) the board diversity, and (iii) the board diversity and its effects on the firm, by reviewing the most relevant theoretical frameworks used to investigate on the board diversity phenomenon. The second part (Chapters 5 and 6) presents the empirical investigation that was conducted on a sample of European listed companies. This second part describes the data and the empirical methodology to finally present and discuss the results, the theoretical and managerial implications and propose a future research agenda.

Keywords Board · Board diversity · Firm performance · Corporate governance

1.1 Introduction to Board Diversity

The relationship between the board diversity and the firm performance represents an interesting corporate governance aspect that has received an increasing attention in the latest years. The theme of diversity within firms has old origins, when it has started to be studied with reference to

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teams, job organization and more in general in relation to people management (Cox 1994; Cox and Blake 1991; Dutton et al. 1994; Kossek and Zonia 1993; Williams and Bauer 1994). Later, it has started to be investigated also with specific refer to the main governing body, the board of directors. All firms worldwide present a boardroom composed by several members. These members, being individuals, present their own characteristics and features. Unavoidably, these characteristics impact on the way the directors interact and, as a consequence, operate. Thus, this puzzling phenomenon has gained extensive attention over the years, as scholars have tried to highlight the characteristics of the directors that are more relevant for generating a positive outcome for the firm. Therefore, the board composition, seen as the result of the mix of the individual characteristics of the board members, has been largely investigated under several theoretical frameworks, ranging from the more traditional agency, stakeholder and the resource dependence theory frameworks, to the newer stewardship and institutional theory.

Literature has posed several questions in terms of board diversity impacts. In other words, being the board the highest body in terms of decision-making process, its outcome can impact on various firm's aspects. Thus, the boardroom diversity topic finds breeding ground for the analysis of the impacts generated by the heterogeneity among directors on at least five main aspects: (1) the corporate social responsibility (e.g. Harjoto et al. 2015; Rao and Tilt 2016; Katmon et al. 2019), (2) the organizational performance (e.g. Jehn and Bezrukova 2004; Hambrick et al. 1996; Hambrick and Mason 1984; Bell et al. 2011), (3) the firm's innovation (e.g. Galia and Zenou 2012; Bianchi Martini et al. 2012; Midavaine et al. 2016), (4) the firm's risks (e.g. Lenard et al. 2014; Bernile et al. 2018), and (5) the firm's financial performance (e.g. Campbell and Mínguez-Vera 2008; Carter et al. 2003; Adams and Ferreira 2009; Vieira 2018). This latter aspect has been the most researched one, due to the high relevance also for financial markets, even though no convergent empirical findings have been achieved yet.

Understanding the multiple options in terms of director choices, as well as their effects and implications for the firm's financial performance, is the main purpose of this book. In fact, the present work empirically analyses the impacts of boardroom diversity features on the firm's financial performance, estimated with both market-based and accounting-based measures. The authors explore first the effects of each single board diversity dimension on the firm's performance conducting a single diversity

indexes analysis, and, then, the simultaneous effects of several board diversity dimensions still on the firm's performance though a joint diversity indexes analysis. Thus, from a methodological point of view, following previous studies (Bernile et al. 2018; Harjoto et al. 2015), this book constructs indexes for measuring the board diversity dimensions that take into account the type of variable (categorical or quantitative) behind the dimension itself. Specifically, twelve diversity dimensions were taken into account.

As far as the structure is concerned, the book presents first a literature review part (Chapters 2, 3, and 4), which draws the big picture of the existing literature and the most relevant theories about the board of directors and the board diversity; second, it presents the empirical investigations (Chapters 5 and 6), starting from the data and the model explanations and then continuing with the presentation and the discussion of the achieved results, with some final remarks on a future research agenda that could be further developed.

On the whole, this book seeks to contribute to the board diversity literature covering the most relevant theoretical frameworks used to explain the complex board diversity topic and providing a new empirical approach to investigate the effects of this phenomenon on the financial performance of the firm. In doing so, it tries to address the need for a focused, timely and empirical discussion about this relevant and evergreen topic.

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CHAPTER 2

Corporate Boards

Luca Pirolo

Abstract This chapter aims to set the ground, providing a brief definition of the corporate governance according to worldwide practices and focusing on the role and the functions of the board of directors. To reach this goal, a punctual review of the different theoretical frameworks coping with this topic is provided, putting in evidence the main differences as well as the principal points in common. Specifically, the agency theory, the stakeholder theory, the stewardship theory, the resource dependence theory, and the institutional theory are analysed. Moreover, the role of BoDs is analysed together with the features and the overview of "good" corporate governance practices according to existing literature and practice.

Keywords Corporate governance · Corporate board · Agency theory · Resource dependence theory · Stakeholder theory · Stewardship theory

2.1 Corporate Governance and Board of Directors

The expression "Corporate Governance" refers to all organisms, processes, and mechanisms designed and used to direct and control firms. Even though this expression is worldwide used since the beginnings of

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the 1980s, a general consensus on its significance and on what it effectively includes does not exist yet. The international literature, as well as numerous domestic and supranational authorities, provides different definitions mainly based on both the range and the variety of stakeholders considered and the range and variety of firm's bodies and mechanisms in charge of the governance of the firm (Kumar and Zattoni 2015). Despite the existence of a multitude of definitions, a common point of analysis is the recognition of the role of corporate governance in mitigating conflicts of interests between stakeholders in corporation. Leveraging on this need, a milestone in the conceptualization of the corporate governance is provided by the Cadbury Report (Cadbury 1992) titled "Financial Aspects of Corporate Governance", which describes corporate governance as "the system by which companies are directed and controlled". The Report was issued by "The Committee on the Financial Aspects of Corporate Governance", chaired by Adrian Cadbury, whose name it bears, to set out recommendations on the arrangement of company boards and accounting systems to mitigate corporate governance risks and failures. Specifically, the Cadbury Report states that "Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interest of individuals, corporations and society". The importance of this report relies on the fact that the recommendations proposed thereby have been used by several other subsequent corporate governance codes.

Over the following years, several other definitions were given, some of them more based on the idea that the company generates value specifically for shareholders, and others more focused on a wider idea of value creation for a broader number of stakeholders. For example, following the contribute developed by Denis and McConnell (2003), corporate governance is "the set of mechanisms – both institutional and market-based – that induce the self-interested controllers of a company to make decisions that maximize the value of the company to its owners". Similarly, Shleifer and Vishny (1997) suggest that "Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment". Moreover, remaining on the same path of contributes, Larcker and Tayan (2008) define corporate governance as "the set of mechanisms that influence the decisions made

by managers when there is a separation of ownership and control". It's therefore intuitive that these definitions embrace the idea that the main aim of a firm is to create value for the owners. This mainstream of studies is well known in the international literature under the label shareholders' approach (Rappaport 1986).

On the contrary, a wider perspective taking into account all the main stakeholders of the firm leads to a broader definition of corporate governance. In fact, according to this different branch of studies, known as the Stakeholders' approach (Freeman 1988), corporate governance can be defined as a "bundle" of internal and external mechanisms necessary to lower the interests' misalignments between the firm and the various stakeholders who have linkages with the firm itself (Hanson and Song 2006). Thus, the final aim of the corporate governance is the satisfaction of stakeholders' needs as the basis for ensuring the long-term success of the firm.

However, independently from the conceptual lens of analysis assumed, a common point between the two approaches occurs about the board of directors and its role. In fact, this body is universally recognized as the main mechanism of the corporate governance system adopted by the firms. For this reason, the following paragraphs aim to illustrate and explore the main characteristics and functions of the board of directors as a premise to understand its impact of the management of the firm and, in turn, as the ultimate goal of this work, on the performance of the company.

2.2 Board of Directors: What Are They and Why Do They Exist?

The board of directors (shortly, BoD or Board) is the body of the company appointed directly by its shareholders and entitled of monitoring and controlling the activities of the management as well as of the setting of the corporate strategies. Therefore, this group of people has a great direct responsibility towards the shareholders, but, at the same time, they are made to bear an indirect responsibility towards all the other stakeholders, since their decisions impact on a wide range of actors which revolve around the company.

The need to provide firms with a BoD comes from their evolution occurred during last decades. In fact, in former times, firms were small and directly managed by the ownership itself; over the course of time,

several companies have grown in their dimensions and in the range of activity transforming themselves in multinational companies and diversified corporations. These more complex organizations called for (and even today need) more structured mechanisms on the one hand useful to manage and monitor the strategies implemented by managers and on the other hand able to handle the regulations as well as the characteristics of the environment in which firms operate. In some countries (first of all the USA), this need is more acute since companies show a dispersed ownership picture, so they are not anymore controlled and managed by the ownership itself at all. As pointed out by Fama and Jensen (1983), in their famous work developing the agency theory, this situation led to a strong separation between those who own the company (the principal) and those who manage it (the agent). Within this kind of scenario, the BoD has a relevant role for shareholders, assuring them that the management behaves pursuing the shareholders' interests and not its personal ones. Therefore, acting as the intermediary between the shareholders and the management, the BoD has the primary purpose to solve and balance the various and differentiated interests, as suggested by the agency theory.

Nevertheless, in other countries, such as in most of the continental European ones, the ownership structure is quite different from the one previously described. In fact, in these contexts, the ownership of the firms is usually more concentrated, showing the presence of a dominant shareholder, able to control the majority (effective, when a single shareholder holds more than 50% or relative, when a shareholder owns the largest amount of ownership compared to the other owners) of the company (Faccio and Lang 2002; La Porta et al. 1999). Acting within this scheme, the role of the BoD is still relevant, but acts in a different way. In fact, in this case, the minority shareholders have a little power in the company and they can only rely on the BoD, trusting it for controlling that the majority shareholder behaves following the interests of all the shareholders and not only its personal ones. On top of that, when a shareholder majority exists, its presence in the management of the company is very common, arising the risk of opportunistic behaviours and increasing the importance of the BoD in covering the role of control mechanism. Coherently with these considerations, Fama and Jensen (1983) state that the importance of the BoD is determined by the operative influence to settle an effective information system that stakeholders could use to monitor the opportunism behaviour of the top management.

Notwithstanding, not all the academics and practitioners agree about the real possibility of the BoD to cope with these issues. In fact, some scholars think that the BoD cannot solve suitably the agency problems occurring within the firm. For example, Kumar and Sivaramakrishnan (2008) sustain that the delegation of governance to the board has a double effect: on one side, it is true that it improves the monitoring, and from the other side, it is equally true that it generates another agency problem because directors become dependent on the CEO and, in turn, their behaviours can be conditioned by the research of CEO's complacency. Thus, a reasonable question could arise: If the board of directors cannot really solve the agent-principal problem, as some scholars state, why do they exist?

A first answer can be found in the fact that companies must comply with the requirements and regulations of the stock exchange markets, and, at the same time, they have to be compliant with the rules of the corporate law codes enacted by home country legislator as well as by international authorities. Within this perspective, the board would be interpreted only as another product of regulation. However, it must also be said that if this was the reason behind the existence of the board, it would be only a deadweight cost for the organization. Instead, governing boards are prevalent all over the world, in both profit and non-profit organizations. In addition, the evidence shows how most of the BoDs are often much larger than what is required by the regulatory framework. All these features demonstrate that the presence of BoDs and their role goes far beyond the mere application of the law.

Deepening these last considerations, a second answer to the question about the reason at the base of the existence of boards comes from the idea, supported by several scholars, that corporate boards exist as a market solution to an organizational enterprise problem. In other words, they represent an endogenously determined body that helps to ameliorate the agency problems that affect companies. Nevertheless, Hermalin and Weisbach (2003), reviewing the contributes offered by the economic literature, put in evidence how the attention should be addressed to the board's inner workings (instead of analysing its relationships with the other bodies of the firm) in order to develop a more coherent model of the board and a better understanding of its role in corporate governance.

Finally, in contrast to the agency theory, some other theoretical frameworks have pointed out how an organization depends on the resources available in the environment in which it operates, showing a strong

relation between these resources and the firm's development. Adopting this perspective, it is possible to identify a third answer to the question about the existence of BoDs: the role of the board of directors is crucial in company events because directors can help the firm to acquire and manage critical resources, leveraging also on the social connections which can increase and strengthen the sources of knowledge.

Finally, another relevant issue in analysing BoDs and the reasons explaining their presence rely on the functions to be performed. In a nutshell, the board is elected by the owners of the company and it has to act protecting their investment. Indeed, following the insights provided by Mace (1971), boards can be seen as the body that advices and counsels the management of the firm, providing discipline to the company and acting in case of crisis or when a change in the management team is required. Precisely for these reasons, it's part of the board's prerogatives the choice of the management, which is the operating figure of the company. Moreover, considering that in a long-term perspective the goal of companies is to grow and flourish, increasing their value, the board becomes a central figure in assuring the achievement of these targets, governing, supervising, and directing the management team. As a consequence, it represents the ultimate decision-making authority in reaching these results. Thus, it has to set the company's policy, objectives, and the overall direction. Furthermore, among the relevant strategic and financial matters, the board is also called upon to oversee or give a substantial contribute in managing some critical aspects of the life of the company, such as: (i) the hiring (as well as the firing) of the top managers, (ii) the declaration of the stock dividends' policies and executives' remunerations together with the setting of the final economic objectives, (iii) the decision on stock issuance, (iv) the evaluation of M&A operations, and (v) the overseeing of the legal and regulatory compliance. In addition to these responsibilities, other duties pertain the board, such as the selection of the CEO, the approval of the budget, and the definition of compensation plans for top managers.

2.3 The Role of the Board of Directors: Theoretical Background

The search for an answer to the question on the reasons at the basis of the existence of BoD leads to the study of the roles attributed to this body of the firm. Different theories have been developed in the

attempt to clarify the role that the board has in directing and controlling a company. On actual facts, as previously mentioned, the board is in charge of setting the main firm's strategies, mediating among stakeholders' interests, monitoring the behaviours and the decisions adopted by managers, and providing them with the necessary resources. Naturally, the importance of these tasks varies over the time, depending on the circumstances the firm is coping with. This led academics and scholars to focus on specific aims to be achieved by the board instead of developing a comprehensive view of its role.

In order to provide a general overview of the main theoretical contributes aiming at studying the functions and the performance of the BoD, this paragraph and its subparagraphs are addressed to illustrate five different conceptual perspectives, respectively: the agency theory, the stakeholder theory, the stewardship theory, the resource dependence theory, and the institutional theory.

2.3.1 The Agency Theory

The agency theory framework can be applied to analyse the role of the BoD using the widely known "principle-agent" dilemma. Shareholders, as owners of the company, represent the principal, while the managers, who run the company from an operational point of view, are the agent.

First evidences of the development of this theory date back to 1932, when Berle and Means (1932), in their study on the governance structure of the 200 largest USA non-financial corporations, provided empirical evidence that ownership was divorced from control; in fact, fewer than half of the companies they examined were under what they categorized as managerial control. Specifically, the authors underline how the separation between ownership and control enhances when the firm is strongly financed with equity belonging to a large variety of subjects, no one of them having a significant amount of ownership on their own.[1] In such situation, all these owners will have a little knowledge of the company, which is actually run and managed by managers hired on the job market, not holding shares of the company. Thus, a separation between ownership and management occurs, and a misalignment of interests between shareholders (the principal) and the management (the agent) arises because the former's aim is to maximize the value of their shares and the latter's main aim is to strengthen their position and their power in the firm, enhancing

also their compensation and their personal benefits (Jensen and Meckling 1976). The risk that has to be avoided, in fact, is that these managers take advantage of their position to pursue personal interests instead of the shareholders' interest, which can be summarized in the profit maximization of the company. In fact, the position that managers occupy allows them to benefit from accurate and truthful information creating opportunities they could catch, at the expenses of the firms' wealth and resources. For example, they could take excessive risks on corporate assets or could prize themselves with groundless bonuses and remuneration. To cope with these risks, shareholders rely on the board, which has the duty to monitor managers and their behaviours, assuring the protection and the achievement of the shareholders' interests.

In firms where the ownership structure is not dispersed but instead is concentrated, as highlighted by Berle and Means (1932), the typical agency problem does not exist because actually there is no separation between the owners and the management or, eventually, the problem is strongly mitigated by the existence of a large block-holder, who has more incentives to control managers' behaviours (La Porta et al. 1999). Moreover, the largest shareholder usually also manages the firm and operates also in its governance, eliminating the aforementioned agency problem. Given this situation, a different agency problem arises: the misalignment of interests between the majority shareholder and the minority shareholders. The concentrated ownership, in fact, is characterized by the presence of a large blockholder that has a relevant influence on the firm's decisions, much more than the other owners, being actually the controlling shareholder (Shleifer and Vishny 1986). Thus, in this context, the risk that has to be avoided relies on the behaviour of the controlling shareholder, who could aim at gaining personal benefits at the expense of minority shareholders and the other stakeholders of the firm (Bebchuk and Fried 2003). Therefore, it is readily understandable that the relationship between majority shareholder and minority shareholders is characterized by conflict of interests and information asymmetry (Denis and McConnell 2003; Thomsen et al. 2006). Accordingly to these considerations, many corporate governance regulations are addressed to remove agency problems and to introduce or strengthen mechanisms to support shareholders in controlling managers. An example of the measures that have been taken in the past to increase BoD capacity-scrutiny is the establishment of the independent and the non-executive directors, which means the introduction of new members in

the BoD without any personal, material, or pecuniary relationship with the company or with other members of the BoD or of the management team.

The high importance given by the agency theory to the board in satisfying and protecting shareholders' interests finds its origin in the oldest economic idea that firms have to maximize shareholders' wealth. However, the general acceptance and the fame of this theoretical framework have diminished over the recent decades due to major corporate failures and scandals. Some scholars, in fact, have started to address the causes of these situations to the prevalence of the maximization of short-term share price rather than long-term firm's value. In other words, through the approval of operations oriented to the maximization of short-term profit and price, the board loses the focus on the long-term effects of these decisions and actions on the firm (Klettner 2017). As a consequence, placing shareholders' interests (that mainly focus on profit maximization) first might lead to an underperforming of the outcomes and in turn to a deterioration of the firm's wealth together with the welfare of employees, communities, and investors (Stout 2012). Because of these reasons, over the past years a greater emphasis has started to be given to more stakeholder-oriented theories.

2.3.2 The Stakeholder Theory

While the agency theory focuses the attention towards the specific relationship between the shareholders and the BoD, the stakeholder theory enriches the stream of actors to be considered. In fact, this theory suggests that a firm has responsibilities towards a broader group of stakeholders and not only towards shareholders. Each person or group that can influence or can be influenced by the actions of the company is defined as a stakeholder. This includes workers, clients, suppliers, competitors, creditors and, more in general, the society in which the firm is run. Thus, this theory suggests that the firm has to generate value for all its stakeholders and not only for the shareholders (Freeman 1984).

Coherently to this conceptual framework, the role of the corporate governance is the balancing of the interests of all different parties (Abrams 1951), since, in turn, this leads to better financial outcomes, as proven by numerous empirical analyses (Donaldson and Preston 1995; Jones 1995; Laplume et al. 2008). This assumption is based on the overpassing of the traditional vision of the maximization of firm's value for shareholders in

favour of a new paradigm founded on the maximization of the overall firm's performance. In fact, Freeman (1984), seen as the father of the Stakeholder Theory, in his milestone book "Strategic Management: a Stakeholders Approach", offers a pragmatic approach to strategy, underlining how some companies are now justifying broader social policies and actions not for normative reasons, but for strategic purposes.

Overall, this theory offers a descriptive approach, since it describes the firms as a constellation of cooperative and competitive interests, expressed by different stakeholders, which are a source of intrinsic value. In fact, stakeholders are identified by their interests in the firm, whether the corporation has any corresponding functional interest in them (Donaldson and Preston 1995). Within this framework, connections between the activities of stakeholders and the achievement of various corporate performance aims can be examined. Nonetheless, the theory is not confined to the description of the existing situation nor to the prediction of the cause-effect relations; it also provides some structures or practices that can lead to the design of the stakeholder management. Specifically, stakeholder management needs to pay simultaneous attention to the legitimate interests of all appropriate stakeholders when defining the organizational structure of the firm and setting general policies. The main issue concerning the application of this theory in the management practice is represented by the identification of the stakeholders and their legitimate "interest" in the firm. Accordingly, this theory implies that not all stakeholders, even if identified, will equally participate in the decisions and the processes of the firm.

Conversely, even though it recognizes the importance of the relationships between shareholders and management, the theory does not take it into consideration as the only bond in a firm. In fact, all actions implemented by the firm have to provide benefits for all stakeholders, aligned with a socially responsible vision of the organization. As a consequence, the main aim of an effective corporate governance structure should be the value creation maximization of the firm, considered in its totality (Blair 1995).

2.3.3 The Stewardship Theory

During the 1990s, thanks to the progressive studies focused on social psychology and behaviour of managers, a new theoretical perspective, called Stewardship Theory, emerged. In open opposition to the agency

theory previously described, this new paradigm starts from the assumption that the management of a firm works in the interest of the company and not against it (Donaldson and Davis 1991). In fact, the stewardship theory underlines how shareholders nominate directors to serve in the board. Thus, they have a specific and sole assignment: serving according to the shareholders' interests in every aspect, and this is the legal foundation of the shareholders' protection which led to assume the member of the board (the stewards) to be collectivists, pro-organizational, and trustworthy (Davis et al. 1997).

In other words, grounded in psychology and sociology theories, stewardship theory argues for the possible alignment between the principals and agents as a consequence of a psychological contract or a close relationship with agent behaving in a community-focused manner, directing trustworthy moral behaviour towards the firms and its shareholders (Davis et al. 2007). Thus, stewardship theory holds that there would be no inherent, general problem of executive motivation (Donaldson and Davis 1991), leveraging on what affects human beings and their behaviour within a system. Specifically, there are two main psychological factors that affect individuals, namely socio-emotional wealth and economic well-being (Gomez-Mejia et al. 2011), and a relationship can be viewed from a stewardship perspective when pro-organizational and collectivistic behaviours have greater utility than selfish interests (Davis et al. 2010). As a consequence of this, company motivations prevail on individual motivations. In fact, managers, acting as stewards, behave in a collective manner because they are trying to accomplish the goals of the organization as a whole, for example innovation, profitability, sales growth, and survival/continuity (Vallejo 2009). A steward watches over shareholders' wealth and seeks to maximize it through favourable firm performance (an aim shared by most stakeholder groups) because this will maximize his or her utility functions as well (Davis et al. 1997). Nonetheless, the risk of opportunistic behaviours cannot be ignored, since they are entailed in the human nature. Thus, the key to an efficient stewardship can be traced only in the organizational design of the firm, which should be built upon fundamental values as trust and integrity. In this sense, the selection of the managers, as well as of the members of the BoD, should be driven with the aim of finding people motivated in behaving in the interest of the company thanks to their commitment in respecting the organizational cultural rules and sharing these values. In fact, as suggested by Smallman (2004), since stewards' individualistic self-serving behaviours have a lower

utility than collectivistic organizations ones, organization comes first and cooperation is the key to the stewards' rationale.

Finally, the stewardship theory recognizes the existence of other stakeholders as well as the need to consider the effects of firm's strategy on them, but the primary loyalty should be towards the shareholders, since other stakeholders (e.g. suppliers and employees) have their interests protected by law (Tricker 2009).

In synthesis, the stewardship theory calls for a balanced governance in which stewards (directors) solve conflicts arising within groups, generating concrete results that fulfil the interests of all the subjects involved in the firm.

2.3.4 The Resource Dependence Theory

Although agency theory is still the predominant framework used in the investigation about the board of directors, empirical studies on resource dependence theory suggest that this conceptual framework is a more successful lens for understanding boards (Dalton et al. 2007; Johnson et al. 1996; Zahra and Pearce 1989).

The application of the resource dependence theory in explaining the role of BoD has its roots in the pioneering contribute developed by Pfeffer (1972) founded on the idea that boards enable firms to minimize dependence on current resources and gain the access to new sources of resources. Specifically, this theoretical framework was originally developed to provide an alternative to the economic theories for merger operations and board interlocks in order to investigate on the interorganizational relationships that affect organizational failures (Pfeffer and Salancik 1978). Starting from the consideration that organizational survival depends on the ability of the firm to acquire and maintain resources available in the environment in which it acts, the theory affirms that companies have to plan strategies and tactics to restructure their dependencies and reduce them (Davis and Cobb 2010; Casciaro and Piskorski 2005). In achieving this goal, early studies using the resource dependence theory to examine boards focused on their size and composition as a proxy of the firm's ability to cope with resource dependence, opening the company to new sources of critical resources. Pfeffer (1972), for example, finds that board size relates to the firm's environmental needs and those with greater interdependence require a higher ratio of outsider directors. In other words, the author states that "board size

and composition are not random or independent factors, but are, rather, rational organizational responses to the conditions of the external environment" (Pfeffer 1972: 226), confirming this assertion in a replication study (Pfeffer 1973). On the same path of analysis, Sanders and Carpenter (1998) find a relation between board size and environmental dependence, measured by the level of internationalization of the firm, and Dalton et al. (1999) conduct a meta-analysis to show a positive relationship between board size and firm financial performance.

It is relevant to underline that the board composition and its size are contingent not only to the external environment, but also to the firm's current strategy and prior financial performance (Pearce and Zahra 1992); in other words, adopting a more general view, the resources provided by the members of the board should match with the needs of the firm (Pfeffer 1972). This is equivalent to saying that it's not just the number, but the type of directors (viewed in terms of resources they can bring to the firm) that matter. Coherently, Pfeffer and Salancik (1978) identify four benefits that directors can provide to organization:

(1) Advices and counsels or, more in general, information that derives from their previous expertise, experience, and skills (Baysinger and Hoskisson 1990; Gales and Kesner 1994) and that can be exploited to perform higher results (Westphal 1999);
(2) Access to channels of information between the firm and other organizations, useful to reduce transaction costs and to cope with the uncertainty of the external environment. In fact, executive director's external ties play a critical role in the strategy formulation process and in subsequent firm performance (Eisenhardt and Schoonhoven 1996; Geletkanycz and Hambrick 1997), thanks to the facilitate access they provide, for example, in identifying strategic information and opportunities (Pfeffer 1991) and in revealing information about the agendas and operations of other firms (Burt 1983);
(3) Preferential access to commitments or support form important elements outside the firm, such as financial capital institutions, political bodies or other important stakeholders' groups (like customers, suppliers or local communities). To reach this aim, firms can even invite representatives of these stakeholders as effective members of the BoD in order to create more commitment and involvement;

(4) Legitimacy, viewed in terms of reputation and credibility of the firm, suggesting that the prestige of the directors that compose its board can enhance the value and the worth of the organization.

All these benefits minimize external dependence of the firm as the international literature demonstrates through empirical analyses addressed to test and measure the assumptions of the theory. For example, Provan (1980) identifies a positive relationship between the ability of firms in attracting and co-opting powerful members of the community in their boards and the capacity to acquire critical resources from the environment. More specifically, Mizruchi and Stearns (1988, 1994), focusing on a specific type of resource, the financial one, demonstrate how the ability of a firm to access to new sources of financing depends on the representation of financial institutions in its board.

Moreover, various streams of the resource dependence theory address the attention towards the analysis of specific situations or conditions in which firms can benefit most from the resources provided by the board. For example, Lynall et al. (2003) develop the initial idea proposed by Zahra and Pearce (1989) about the linkage between the firm life cycle and the importance of the role of the board in terms of resource dependence to underline how this link is more significant during the early stages of the life cycle. Furthermore, other authors investigate board or firm characteristics to measure the effect of the theory. On this path of studies, Daily and Dalton (1992) empirically demonstrate a significant relationship between some board characteristics, such as the size and the composition, and the performance obtained by small corporations.

2.3.5 The Institutional Theory

The institutional theory refers to organizational behaviours, with a completely different perspective compared to the previously mentioned theories (Meyer and Rowan 1977). According to Argote and Greve (2007), the main aim of this theory is to explain how firms adapt to a symbolic environment of cognition and expectations and regulatory environment of rules and functions. In fact, since organizations are embedded in institutional environments, organizational dynamics tend to be replies to or replications of the regulations and structures of the larger environment (Hall and Soskice 2001; North 1990).

At the base of this assumption, there is the idea that companies tend to adapt likewise when they find themselves in similar circumstances, as suggested by Campbell (2007) who supports this idea through the detection of "best practices" for corporate governance. This concept is well known in the international literature under the name of isomorphism, whereby firms (and more in general organizations) conform to the accepted norms of their population. According to the milestone work developed by DiMaggio and Powell (1983), there are three types of mechanisms to explain the isomorphic institutional change: (i) the coercive mechanisms which occur when cultural expectations in the society or external constituents on which an organization is dependent force organizations to change in a certain way; (ii) the normative mechanisms, which arise primarily with pressures from professionalization, introducing standards of appropriate behaviours; and (iii) finally, the mimetic mechanisms, which refer to the situation in which an organization copies successful role models developed by another organization because its actions are believed to be rational or because of a desire to avoid appearing deviant or backward.

Regardless of the mechanisms useful to explain the isomorphic institutional change, as a result of this process, the organizational action largely mirrors a pattern of doing things that progress over time and become legitimated within an organization and its environment (Pfeffer 1972).

The adoption of organizational practices and norms co-evolving with institutions might become institutionalized. In other words, institutionalization can be defined as the process by which a specified set of components and a number of activities come to be normatively and cognitively held in place and considered as a rule. Likewise, when existing practices get developed into an enforceable norm, the goal is that that normative practice gets institutionalized by coercive or isomorphic means (Terjesen et al. 2015).

Nonetheless, the theory admits that organizations may vary in the degree to which they conform to the changes occurred in their external environment (DiMaggio and Powell 1983). In fact, the pressure for isomorphism can be amplified or reduced by the regulatory policies as well as by the strategic positioning of the firm (Judge and Zeithaml 1992).

In this context, corporate boards respond to external pressure, such as social rules and conventions, with the final aim to legitimize the corporation. In doing this, they have to conduct a careful analysis of the external environment to be promptly prepared to changes in expectations (Hung 1998).

2.4 Board Features

The review of the different theoretical perspectives demonstrates that there is a need to take an integrated approach rather than a single reading key to understand the effect of good corporate governance. In fact, over the years, different lenses of analysis have addressed the attention towards specific aspects of the same big picture. For example, while the agency theory places primary emphasis on shareholders' interests, the stakeholder theory takes care of the interests of all stakeholders (and not just the shareholders). Similarly, while the agency theory stresses the problem of the conflict of interests between ownership and management, the stewardship theory gets over this aspect leveraging on the legal agreement between these two parties. Moreover, always with the aim of overcoming the principal-agent problem, the resource dependence theory underscores the importance of board as a source of new resource for the firm. All these aspects are only different focuses on which each theory mainly concentrates the attention. Nevertheless, they can often be analysed as a whole, opening the study to a new stream of research.

Regardless of the specific features of each theory, it is clear that corporate governance is concerned with the social, political, and legal environment in which the corporation operates. Similarly, the outcome of a good corporate governance practice is an accountable board of directors who ensure the safeguard of the interests of different stakeholders of the firm. Thus, the review conducted in the previous subparagraphs has allowed the construction of a conceptual framework within which to embed the board processes and dynamics. These considerations let us to shift the focus of the attention towards the board of directors and its main features.

A corporate board is composed by a group of individuals—the directors—nominated by the shareholders, who decide on the most significant issues in terms of firm's strategies, firm's growth and, ultimately, firm's value.

Even though different rules and regulations for boards are applied by each country, reflecting specific characteristics of local context, they all have in common the obligation for corporations to create a board of directors which is nominated by the shareholders. Among the others, the board has the duty to meet at least once per year for the annual report approval, preserving minutes of the meetings that document the debated issues and decisions taken. Only proprietorships and LLCs are

not required to elect the board of directors, but they can still form one if they want.

As far as public companies are concerned, they are required to have a certain number of the so-called independent directors (also called "outside directors"), as initially declared in the Sarbanes-Oxley Act (SOA)[2] of 2002 and later required by other domestic and international regulations. Independent directors are identified as individuals who are not affiliated with the company or, in other words, that do not have any relationship with the company. On the contrary, private companies are not obliged, but just advised to have independent directors as a precondition for a better governance structure. The benefits of having outside directors rely on different aspects. First, they should bring a more objective view since they are more likely to deliver unbiased judgements and ideas. Second, they should provide the company with new knowledge and additional competencies, since they often represent an access to external resources otherwise unavailable to the firm. Finally, they should be the balancing element among the different shareholders' interests and visions. Different studies confirm the evidence of these benefits. For example, Daily (1995), acting within the resource dependence theory framework, finds that firms with a higher proportion of independent directors are more likely to successfully recover from bankruptcy through the Chapter 11 reorganization procedures.[3] Similarly, Zahra and Pearce (1989) show how outside members act as a channel to guarantee a preferential access to external resources and competences. Moreover, external directors may also play an important monitoring role in small, unquoted companies. Specifically, according to Deakins et al. (2000), in performing their function of advisor, counsellor, and expert consultant, external directors may also be able to overcome potential moral hazard problems for venture capitalists.

Even though worldwide corporate governance reformers claim for a growing percentage of outside directors within the board, this request is viewed with scepticism by some academics and practitioners. In fact, the value of independent directors is still an important unsettled question in the literature (Adams et al. 2010; Bhagat and Black 1999; Gordon 2007). While some studies find a positive relation between board independence and corporate outcomes (e.g. Aggarwal et al. 2009; Byrd and Hickman 1992; Cotter et al. 1997; Dahya et al. 2008), a significant part of the literature has demonstrated that the effectiveness of independent board members is reduced by the lower amount of information and knowledge they have about the company compared to the non-independent ones,

not being able in practice to effectively oversee and control agency problems (Berle and Means 1932; Jensen 1993). Moreover, several empirical studies did not find any consistent evidence that independent directors make a difference in terms of firm performance, showing minimal or not statistically significant correlations (Bhagat and Bolton 2008; Duchin et al. 2010; Fields and Keys 2003; Hermalin and Weisbach 2003).

The debate on the effectiveness of the directors has to be enriched by the consideration of the role of each member of the board within the firm, putting in evidence the distinction between the executive and the non-executive directors: the first ones are those board members which hold decision-making power as well as managerial responsibilities, while the latter are board members without decision-making power and managerial responsibilities. In other words, non-executive directors are not official members of the executive management team and do not have an official employment agreement (nor is compensated for) any services rendered outside the official duties pertaining of the board. Here too, the international literature has investigated the contribution of non-executive directors in terms of organizational performance. At the same time, they have received significant attention from regulators as a mechanism for strengthening firm governance, with corporate governance guidelines focusing on their roles on BoDs (Cadbury 1992; Greenbury 1995; Hampel Report 1998; Higgs 2003; Financial Reporting Council 2018).

The key aspect in analysing their impact on board effectiveness is their helping to seize opportunities with respect to sensemaking and enhanced organizational transformation (Hom et al. 2019). In fact, non-executive directors serve a number of important functions on the board of directors, such as: (i) monitoring senior managers and increasing firm's efficiency in its contracting with these senior managers (Goh and Gupta 2016); (ii) contributing, through their experience and expertise, to strategic decision-making on issues of strategy, resource allocation, risk management, succession planning, remuneration, and standards of conduct (Higgs 2003); and (iii) enhancing the board's set of resources, providing news sources of knowledge and networking to other organizations and firms (Hillman and Dalziel 2003).

The decisions about the board composition (in terms of balancing between, on the one hand, independent and non-independent directors and, on the other hand, executive and non-executive directors) are reflected into the board dimension. The number of individuals and the

manner through which board members are appointed is regulated by the company's statutes, which also define the duration of the board term, usually ranging from 3 to 6 years. However, the board, as well as the shareholders, still has the power to revoke the members before the end of the term if serious matters take place, such as financial damages to the firm, illegal behaviours, or disclosure of confidential or internal information. Focusing specifically on the number of members, there are no required standards to comply with. Worldwide the practice shows that firms usually have boards composed by up to 20 people even though some studies, based on empirical evidence, underline how that ideal size is lower (Lipton and Lorsch 1992; Magnanelli 2012; Magnanelli et al. 2017), since the number of board members is negatively related to the firm's financial performance, measured through the ROE index (Paniagua et al. 2018).

In each BoD, a president (chairman) and a vice president are nominated. These figures are appointed by the board among its members. The chairman is entitled to run and manage the board meetings, and she/he has the task to support reaching the consensus in board decisions. The chairman position can be held by either a non-executive or executive member. Moreover, the board also appoints the Chief Executive Officer (CEO), the highest figure from a managerial point of view. While in the past the role of CEO and the chairman was usually played by the same manager, nowadays corporate governance codes of best practices suggest of having a CEO who is not also the chairman of the board, keeping the two roles separate.

In addition to the aforementioned features of the board, the corporate governance varies according to the model adopted by the firm. The most common governance models are the monistic (or one-tier) model, mainly used in common law countries, first and foremost UK and USA, and the dualistic (or two-tier) model, largely adopted in civil law countries, such as Germany, Italy, France, Spain, and Greece.

The monistic model is also known as market-based system of corporate governance and it is typical of those economies in which share is widely distributed among individuals and institutions (Nestor and Thompson 2001). The model has been developed considering shareholders' interests as the primary focus of the company law. Moreover, it guarantees an emphasis on effective minority shareholder protection in securities law and regulations. Finally, the model is suitable when there is a stringent requirement for continuous disclosure to inform the market. From

a practical point of view, the model gives management and administrative powers respectively to a Board of Directors elected by the shareholders and to an Auditing Committee, whose members are chosen within the Board of Directors. The Auditing Committee members must be independent and professional. Thus, the BoD is the main governance body, composed by executive and non-executive directors, with the aim to direct the company's business.

Under the label "dualistic model", a plethora of corporate governance models, adopted by European countries reflecting their differences in history, culture, financial traditions, ownership patterns, and legal systems can be included. Nevertheless, a common element is traceable in the emphasis on cooperative relationships and reaching consensus. Moreover, the model is highly dependent upon banks, since companies show high debt/equity ratios (Clarke 2007). Operationally, the model is based on the presence of two separate boards, the management board, which is responsible for the day-to-day business, and the supervisory board, which monitors the management board's activities. Moreover, while the management board is elected by the supervisory board, the latter is elected by the shareholders.

2.5 What Are the Features of Good Board Performance?

Due to the recent global financial crisis, the several corporate failures and scandals occurred in the last decades; legislators, institutions, and practitioners have started claiming for new corporate governance codes stressing the necessity for board's performance valuation.

The main purpose of codes of corporate governance is to define and suggest the best features for a governance system. The principal subject called in question by these codes is always the BoD, analysed on the base of all its characteristics and functions. In fact, as mentioned in the report on the OECD Principles of Corporate Governance (OEDC 2004), "Good corporate governance should provide proper incentives for the board and the management to pursue objectives that are in the interest of the company and its shareholders and should facilitate effective monitoring". Thus, over the years, literature has focused the attention on what can actually be defined as "good" corporate governance.

Specifically, considering the board of directors, researchers suggest as good governance features the following ones:

- Small size: boards seem to be more efficient when their size is small. Some scholars (Jensen 1993; Lipton and Lorsch 1992; Yermack 1996), as well as the empirical evidence, suggest to maintain a low number of members sitting in the board to assure a better performance for the firm. In fact, in case of large boards, efficiency will decrease and, as a consequence, it will be easier for the CEO to take control over the board;
- Young and not busy members: it seems that young and not busy directors are more efficient in the monitoring processes (Ferris et al. 2003);
- Separation between CEO position and chairman position: in case of CEO duality, the independence of the board is threatened (Yermack 1996). Nevertheless, some authors sustain that the CEO duality actually facilitates the communication between the board and the management team, creating a stronger leadership (Brickley et al. 1997);
- Short-term CEO and chairman tenure: in case of a lengthy stay, these key figures could start acting and behaving as they would be the only owners of the firm; Hermalin and Weisbach (1988) underline that an established CEO has a lot of influence on the board, and, moreover, her/his power becomes even stronger when the CEO duality takes place (Johnson et al. 2009; Loebbecke et al. 1989);
- High number of meetings: the high number of meetings assures that directors do have a real knowledge of the company and its issues, providing the possibility to better decide on the firm's strategies and actions (Lipton and Lorsch 1992);
- Independence of the members: it is assured when there is a large portion of independent members. When the board members are independent directors, they are considered more efficient at monitoring managers and CEO (Byrd and Hickman 1992; Fama and Jensen 1983). Independent directors are perceived as those who can better and fair judge on the management, ensuring the protection of shareholders' interest and the maximization of the firm's value (Beasley 1996).

As far as the idea of evaluation that the board's operations and processes are concerned, supporters state that it would highlight any criticality, leading to eventual corrective actions that would better the board's performance and thus reducing the likelihood of corporate

failures (Nicholson et al. 2012). The crucial point of such analysis is undeniably the way to assess the actual board's functioning. In fact, despite the increasing recommendations, governance codes do not provide any specific method or guidance about the criteria that should be used to assess the board's performance. Thus, as a matter of fact, firms have a great level of flexibility to evaluate their boards. Consequently, each firm will set up its own valuation system depending on the circumstances and the scenario in which it operates (Minichilli et al. 2007).

Another point on which everyone agrees is that an effective board implements an effective decision-making process, a necessary condition to guarantee the firm's wealth. Specifically, the board's decision-making process has to include: the identification of the board's roles and responsibilities, the effective information collection and disclosure, the acquisition of the needed skills, experiences, and competences necessary for the analysis of the corporate situation, and, finally, it has to be able to provide an independent judgement on the managers' way of operating (Klettner 2017).

All the above-mentioned factors affect the performance of the board and, as a consequence, the evaluation system applied in the company to check the board's effectiveness should take them into account.

Notes

1. In greater detail, Berle and Means (1932), studying the 200 largest US non-financial corporations in 1929, found that 44% of them had no individual ownership interest with as much as 20% of the stock, a share that they viewed as an approximate minimum necessary for control. The authors classified these 88 firms, which accounted for 58% of the total, as management controlled. Moreover, they found that in only 11% of the firms did the largest owner hold a majority of the firm's shares (Mizruchi 2004).
2. The Sarbanes-Oxley Act applies to all companies that are listed on the New York Stock Exchange and it provides several indications and rules about the board composition, responsibilities, and disclosure. Specifically on independent director, it refers to person who does not accept any fee from issuer (other than as director) and is not an affiliated person of the issuer or any subsidiary.
3. Chapter 11 is the chapter of the Bankruptcy Code of the US Court which permits the reorganization under the bankruptcy laws of the USA.

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CHAPTER 3

Corporate Board Diversity

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Abstract The international literature has deepened the importance of analysing the composition of BoDs in order to understand their effectiveness and efficiency. Along this path of research, this chapter aims to investigate the board diversity reviewing the main contributes developed on this topic. Specifically, the chapter illustrates the different sources in terms of diversity in the boardrooms, putting in evidence the role of regulations and institutional investors at promoting the growth of this diversity. The analysis is proposed through a cost-benefit approach, to illustrate the potential advantages and the relative risks connected to the diversity in BoDs.

Keywords Firm performance · Board diversity · Organizational diversity · Individual diversity

3.1 What Is Board Diversity?

The economic literature, the practitioners, and the regulators have broadly focused the attention towards problems arising from the relationship between the ownership of the company and its management, questioning the role that BoD can have in order to solve, or at least mitigate, these issues.

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As seen in the first chapter, the most common theoretical framework to analyse the role of BoDs is the agency theory. In fact, numerous scholars use this approach to investigate the activities of the BoDs as well as their aims and performances. Through its universally recognized importance and its various fields of application in analysing the relationship between management and shareholders, the agency theory does not cope with specific matters concerning the size of the board, its composition, the heterogeneity of its members, and so forth (Baysinger and Butler 1985). In the past, the only heterogeneity that was deeply investigated relied on the presence of both independent and non-independent directors. In fact, other aspects of heterogeneity were previously considered not relevant, unless directly or indirectly related to the issue of the independence (Ferreira 2010).

More recently, the relevance of heterogeneity within a boardroom has become central due to the greater attention paid by practitioners, legislators, and the public opinion. Indeed, many studies have been conducted in order to demonstrate, from both a theoretical and practical points of view, that having a board made of a heterogeneous group of people is crucial to achieve a higher level of corporate social responsibility, a superior strategy and brand reputation, a deeper presence in the market, and last but not least, a better financial performance. In sum, the most recent contributes to the development of the literature and the empirical evidence clearly show how diversity in the boardroom is a key driver in performing better outcomes for firms.

In reviewing the existing literature on diversity, one of the first systematizations is provided by Milliken and Martins (1996)[1] who look at diversity as a double-edged sword since it can offer great opportunities for a firm, but, at the same time, it represents also a risk factor. In fact, some studies highlight how more diverse groups have the potential to consider a greater range of perspectives and different sources of creativity, generating, in turn, more high-quality solutions than less diverse groups (e.g. Hoffman and Maier 1961; McLeod et al. 1996; Watson et al. 1993). On the contrary, other works, putting in evidence the risk of lack of group identity, precisely because of diversity among their members, come to the conclusion that diversity is a risky challenge since it leads to less integrated group (O'Reilly et al. 1989) and to higher level of dissatisfaction and turnover (e.g. Jackson et al. 1991; Wagner et al. 1984).

Following Cox and Blake (1991), diversity can be described as the variation of social and cultural identities among people acting together

in a definite employment or market setting. Similarly, social and cultural identity refers to the personal affiliation with groups that research has demonstrated to have meaningful influence on people's relevant life events. Thus, directors may be different in various personal affiliations such as gender, race, national origin, religion, age, educational background, international experience, and also professional background (Ferreira 2010). Each of these features can affect the value and the performance of the firm; thus, it is important to describe the type of diversity actually existing to better understand the characteristics of the directors and the ways through which they influence the decision-making process of the board. To reach this goal, this chapter aims to illustrate the major theoretical perspectives useful to investigate the role of diversity in BoDs in order to then develop in Chapter 4 the literature about the BoD diversity's impact on different firm's aspects, such as the economic and financial performances, the corporate social performance, the organizational performance, the innovation activity, and the overall risk of the company.

3.2 Literature Review on Corporate Board Diversity

The international literature has started to investigate the role and the impact of the diversity in the boardroom under several lenses of study and with different perspectives. One path of research, having as central focus the maximization of shareholders' value, stresses the impact of the board diversity on the firm itself. Under this lens, various features of the board have been analysed, such as the impact on the firm performance, the board efficiency and effectiveness, the leadership position and turnover, the risk of the company (Bernile et al. 2018), the corporate social responsibility policies and performance (Katmon et al. 2019), and the executive compensation (Sarhan et al. 2019).

Nevertheless, during the last two decades, a new path of research, more oriented to the relationship between the corporate governance and the external environment in which the firm operates, has been developed. According to this new point of view, the board diversity is not important only for the impacts that it can have on firm's performance and value for the shareholders, but it becomes essential in a broader perspective, since it affects the whole environment in which the firm acts and also its corporate social responsibility. The board, in fact, is an essential institution for the

firm, because it influences the strategies and the policies of the company, and, at the same time, it also has a huge impact on all the stakeholders connected to the firm. For this reason, boards should respect democratic requirements and better represent the multicultural society in which they operate. Moreover, considering that firms constantly interact with stakeholders, a diverse board can be a clear signal of the firm's commitment towards the creation of social value, increasing also its reputation and improving its perception in the external environment (Dowling 2006; Mahon 2002; Rindova 1999).

Bearing in mind these considerations, in order to deeply analyse the board diversity providing a conceptual framework, we propose to cluster the diversity dimensions in two main groups: the organizational and the individual group, with the latter subdivided into occupational attributes and personal attributes.

3.2.1 Organizational Diversity Dimensions

The organizational diversity dimensions refer to the employee status viewed as the nature of the relationship between the firm and each director sitting in its board. In conducting this analysis, firstly, members of the BoD can be divided into executive and non-executive directors, also called inside and outside directors. They are defined executive (or inside) when they are involved in the firm's operations, so they are full-fledged employees in the firm. On the contrary, they are non-executive (or outside) when they act exclusively as board members with no other responsibility within the firm. This issue constitutes a relevant element of diversity in terms of occupational status of the director within the board. In fact, the main difference between the two groups is on the operating plan: while executive directors take strategical and relevant decisions and represent directly the firm, the non-executive directors are simply board members, without any operational responsibilities or decision-making power in managing the daily operations of the firm. Outside directors are expected to accomplish their duties without any influence coming from the management due to the fact they do not have any reporting line with the CEO and, moreover, they do not base their livelihood on the company.

Moreover, if the director is an outside one and has no personal ties with other members of the board and, at the same time, is not related to

the firm through subordinate relationships, she/he will be defined "independent". More specifically, the independence definition provided by the NYSE standards states that directors are independent when they have "no material relationship with the listed company, either directly or as a partner, shareholder, or officer of an organization that has a relationship with the company".[2] Similarly, following the UK Corporate Governance Code (2018),[3] "a non-executive director is considered independent when the board determines that the director is independent in character and judgement and there are no relationships or circumstances which could affect, or appear to affect, the director's judgement". In a nutshell, independence is fundamental for assuring objective judgements by directors especially when evaluating the top executives and the risk management policies. From these considerations, this dimension of diversity refers on the one hand to the *executive* or *non-executive* (also known as *inside* or *outside*) status, and on the other hand to the *independent* or *non-independent* status. With specific reference to this latter case, it is also often defined as "independence diversity".

As far as the first status is concerned, which is the issue about inside and outside members in the board? Two different points of view can be adopted. The outside directors, because of their status, are clearly less informed about the real firm's situation compared to the inside ones. This gap in terms of information is even more relevant when specialized knowledge is required to run the business. The decision-making process will necessarily suffer from the information gap that exists because of these directors. At the same time, on the flipside, it is important to point out that, being outside directors, they should guarantee a higher control over the management and, moreover, they can draw on their professional backgrounds and broader experience, as well as on their specializations, to advice the board about the company strategies, the strategic operations such as M&As, and the business model to adopt. Coherently, the international literature highlights how investors really appreciate companies that add outside directors to their boards. For example, Rosenstein and Wyatt (1990) demonstrate that the stock price of a firm increases around the announcement date of the appointment of a new outside director. Similarly, Nguyen and Nielsen (2010) find that the markets do not react well when an outside director dies. In fact, the immediate reaction to this unfortunate event is the devaluation of the stock price of the firm. Moreover, investigating the operating performance, some

scholars demonstrate that firms benefit of the presence of outside directors (Duchin et al. 2010), especially when they are involved in merger and acquisition operations (Cotter et al. 1997).

Different opinions are also expressed by scholars specifically about the independence status. Aligned with the agency theory perspective, some authors, such as Gupta and Fields (2009) and Stone (1975), state that in a board of directors none or only a few members should be or should have been employees of the company. These scholars, in fact, sustain that the effective control of the management behaviour can be achieved only if the majority of the board is composed by outside directors. On the same stream of analysis, a recent study, focusing on European companies, identifies that both firm size and firm performance increase when the number of independent directors raises (Ferreira and Kirchmaier 2012). Moreover, the same study also shows that firms are enhancing the number of their independent directors. Nevertheless, a completely different opinion is provided by other scholars, such as Lorsch and MacIver (1989). The authors, in their study about the selection and election of the members of the BoD, provide data on reasons why directors refused particular board memberships stating that only inside directors can actually maximize the value for shareholders. The rationale behind this statement is based on the consideration that inside directors know better the firm, are more familiar with the business, and thus can take the best decisions to reach the goals.

A third perspective, provided by McPhail (2010), suggests that perfect corporate boards are the ones composed by a mix of inside and outside directors in order to balance knowledge and objective judgement, assuring health to the firm. Moreover, the topic of the composition of the board, in terms of independency, has been object of analysis also from the institutional point of view. For example, the European Confederation of Directors' Association[4] affirms that independent directors are fundamental for the governance of a company due to the fact that they have a more balanced perspective and can think and see matters in a more objective way compared to inside directors. Relying on this statement, recently, several legislators in various countries have increased the minimum number of independent directors required.

Thus, analysing the independence also under the lens of the diversity is relevant to understand if a larger and more balanced number of independent directors could bring benefits in terms of firm performance.

3.2.2 *Individual Diversity Dimensions: Occupational Attributes*

Occupational attributes represent a second significant dimension of diversity, usually investigated in studying the relationship between team composition and performance (Nasta et al. 2016). Under the topic of the present work, this type of diversity finds fertile ground of analysis in the resource dependence theory, since it looks at the board as the basis of resources that its members can bring to the firm. Even though several aspects of the occupational attributes of diversity can be considered, the main ones refer to the professional background, the international experiences, and the tenure matured in the firm by each member of the board.

As far as the professional background is concerned, people with different career paths could enhance the innovation and the cultural sensitivity of the firm, expanding the management vision and proposing effective solutions that are far from the habitual ones followed by the company management. Moreover, the presence of directors with different professional backgrounds is an effective way to lay the groundwork for a renewal in the organizational culture seen as the set of collective values, beliefs, and principles of organizational members that, in turn, influences the way through which directors interact within the firm and outside it. Finally, since the resources that individual directors bring to corporate boards are largely a function of their human and social capital, also former experiences in the political sphere can play a relevant role. On this topic, Lester et al. (2008) explore the depth, breadth, and deterioration of former government officials' human and social capital as influential predictors of corporate outside directorship.

A second interesting aspect of the diversity based on the occupational attributes is connected to the international experience gained by the members of the board. In fact, as in the previous case, the heterogeneity of experiences, matured in different geographical contexts, is a precious source of new knowledge and expertise acquired by a director and of which the firm can take advantage. Moreover, considering the trend most of the companies are following, moving more and more towards international markets, directors with experience and knowledge in local markets are considered as an important strategic resource for the company. In fact, it is highly probable that these directors have significant relations as well as an established network of contacts with local authorities and institutions and other business executives. Thus, these ties can help the firm

in achieving the defined strategic goals in an easier and/or faster way. Aligned with this idea, the empirical evidence shows that the presence of foreign independent directors in the boardroom is positively related to better cross-border acquisitions in case the target company is in the home country of the foreign director (Masulis et al. 2012). In other words, since directors represent a functional link to external organizations, relevant for the business purposes of the firm, both the aspects taken into consideration (professional background and international experience) are relevant because they impact on the skills and the knowledge that each director has and can bring to the firm. In line with these considerations, numerous empirical studies, like Baysinger and Butler (1985) and Burt (1983), point out how directors with different professional paths and backgrounds can maximize the value for shareholders, allowing better access to capital market's resources. Furthermore, a relevant feature in terms of professional background relies on having a financial expert on the board, specifically in the audit committee, which is becoming a requirement in many countries. To be qualified as a financial expert, the candidate must have previous experiences as auditor, public accountant, CFO, or similar. A financial expert is believed as necessary to better assure the fairness and the integrity of the financial statement numbers in particular, and the evidence is actually confirming that adding a financial expert in the audit committee improves the governance quality (DeFond et al. 2004). Finally, some scholars have started to investigate the relationship between former international experiences and current characteristics of the environment in which the firm operates. For example, Hillman et al. (2007) find that firms with specific forms of environmental dependencies are more likely to have female directors. Furthermore, a good deal of research also establishes the need to change board composition as the environment of the firm changes (Boeker and Goodstein 1991; Lang and Lockhart 1990). For example, in the context of China's changing institutional environment, Peng (2004) finds that resource-rich outside directors are likely to have a positive influence on firm's performance, whereas resource-poor outside directors are not, suggesting that when board composition is not changed to meet new environmental demands, the performance suffers. Hillman et al. (2000) create a taxonomy of directors based on the resource dependence theory benefits that directors provide, exploring how specific types of directors may be more/less valuable as environments change (e.g. deregulation). They propose that directors can

be classified as "business experts", "support specialists", and "community influencers", corresponding to the different types of resources they bring to a board. The taxonomy proposed by these authors has been later used by Kroll et al. (2007) to demonstrate how young post-initial public offering (IPO) firms benefit from specific types of directors.

The third and final aspect clustered in the occupational attributes refers to the tenure matured in the firm by a member of its BoD. Specifically, the tenure is seen as the time spent in the same organization as a director. The tenure can affect the decision dynamics through a socialization process, which is the mechanism through which a person, in our case a director, understands the evolution of the organization, the behaviour that is expected from her/him, and the system of values to effectively work within the firm (Sturman 2003). About this specific aspect of diversity, the international literature does not have a common vision. Some scholars state that being director in the same firm for a long period does create value for the firm, because the tenured director will have a deep knowledge of the firm and of all its potentialities, allowing him to make wiser and more weighted decisions (Fudenberg and Maskin 1986). On the contrary, other scholars believe that directors with a shorter tenure are more open to new ideas and new ways of thinking and operating, since they matured different experiences from previous positions eventually fulfilled in other industries. In turn, this would generate benefits to the firm that would present a more open mind approach in problem-solving and decision-making processes (Bell et al. 2011). This second vision is aligned and linked with the considerations already explained for the first aspect of the occupational attributes' diversity, the professional background. Moreover, the even more relevant issue about short tenure is that it should better assure the monitoring over the management, because directors that are sitting on the same board since a long period of time become too close to the firm's management. In this perspective, the reappointment of directors is not appreciated.

3.2.3 Individual Diversity Dimensions: Personal Attributes

The last dimension of board diversity refers to the personal attributes of the directors. Specifically, it takes into account, among the others, the gender, the age, the ethnicity, and the level of education. In fact, this dimension is also known under the name of "demographic diversity". The idea behind the attention given to this dimension of diversity relies on

the belief that directors, with different personal attributes, can lead the others to expand the criteria for evaluating various alternatives and can also promote new options, not considered otherwise. In fact, the individual characteristics, the personal background, the type of education, or even the personal taste influence the way of solving a problem or facing a solution, as suggested by a multitude of studies conducted in numerous fields of research.

Gender Diversity

Among the personal attributes, the gender diversity is surely the one that has attracted the greatest attention in the most recent years. This emphasis is due to the fact that today, worldwide, women are not so involved in corporate boards. In fact, historically, boards were composed mainly by men, also because of the role that women previously had in society. As a matter of fact, in the past, BoDs were named "old boy clubs" in the USA. Nowadays, things are strongly changing and firms are trying to create more balanced boardrooms, recognizing the benefits that this choice can bring to them. In order to support this change, worldwide an increasing number of legislators started to require a larger percentage of women appointed as board members. A recent survey, conducted by Deloitte in 2015, over 250 US public companies shows that 18% of the firms of the investigated sample has consistently risen the number of women in the board compared to 2014.

The growing importance of gender diversity is also demonstrated by the several academic contributes published on this topic. The largest amount of these studies concentrates the attention on the relationship between gender diversity and firm's performance, even though no general consensus exists on this relationship. In fact, empirical analyses suggest that women on the board affect the firm's performance in both a positive (Adams et al. 2011; Hutchinson et al. 2017; Terjesen et al. 2016) and negative way (Ahern and Dittmar 2012). Thus, the identification of a clear relationship between a diverse board in terms of gender and the firm's metrics and performance still remains nebulous also because it might be hampered by the fact that firm's performance and other firm's features like risk, efficiency, or stock price depend also on several external factors, uncontrollable by the board. Another relevant issue connected to gender diversity is the remuneration, since a significant gap between male and female remuneration still exists. The pay gap is a reality that exists worldwide, and it is mainly due to the degree of executive discretion, the

participation in the job market, the labour regulations, and the selection bias. A fairer alignment between remuneration given to male directors and the one given to female directors seems to be urgently addressed. In fact, the issue of gender disparity in remuneration among top management positions is an important issue that needs to be investigated for filling the gap in the understanding of gender inequality in management. Actually, the gender gap for executives' compensation was analysed under several contexts. Some scholars have studied the issue focusing on social-psychological explanations: since the executive remuneration is decided by the board, and specifically by the compensation committee, similarities among board members, in terms of demographic characteristics, such as age, background and education, and gender, positively affect the level of the executives' remuneration. In other words, the more similar are the executives and the board members deciding on the compensation, the higher the remuneration will be (Shin 2012; Westphal and Zajac 1995). Similarly, even without a specific link with the gender issue, it has been seen that executives with greater authority are paid more than those with less authority (Bebchuk and Fried 2004; Finkelstein et al. 2009). Other studies explain that economic factors, acting at both individual and firm levels, impact on the executive remuneration, implying a lower one for females. For example, the remuneration gap can be explained by the firm size, as well as the age, the tenure, and the job title of the executive (Bertrand and Hallock 2001). It has also been found that an unexplained remuneration gap exists in the performance-based factors of the compensation package the firm has (Munoz-Bullon 2010; Renner et al. 2002). Finally, a last subtopic of investigation concerns the analysis of how the presence of female directors impacts on the remuneration level of CEO: having female directors, both on the board and on the compensation committee, contributes to a moderation of executive remuneration growth. As a consequence, shareholders perceive the presence of women in boards as a valuable resource and public opinion considers this aspect an efficient example of good governance practice (García-Izquierdo et al. 2018).

The analysis of the factors that favour the board gender diversity can be conducted through the taxonomy proposed by Brieger et al. (2019) who identify four categories of aspects that should be considered: individual aspects, firm aspects, industry aspects, and country aspects.

As far as the individual aspects are concerned, it has been shown by previous literature that the required qualifications (included the level

of education) for women appointed as directors are higher than ones required for men (Grosvold and Brammer 2011; Terjesen et al. 2009). The reason can be found in the existence of the common and old-fashioned assumption that women lack the qualifications and the expertise necessary to seat in corporate board. It is easy to understand that this fact creates a structural barrier for women who want to get into corporate boards (Gabaldon et al. 2016). Additionally, there are several psychological and attitudinal aspects that have to be addressed. Traditionally, women focus less on power, achievement, and autonomy than men and this attitude discourages them to aspire to seat in boardrooms (Adams and Funk 2012). Then, considering also the gender stereotypes and the typical image of the women in the society, helpfulness, gentleness, and low dominance are the characteristics typically attributed to women, discouraging them to aspire at a top management position where, instead, opposite attitudinal and psychological characteristics are usually required (Eagly and Wood 2013; Weyer 2007). Because of the role that society attributes to the female gender since ages, women tend to be the ones spending more time at home, for taking care of the family and of the house. The time they can dedicate on long working hours is then reduced, as well as networking among colleagues and business partners, both of which are usually requirements to get high in the corporate ranks (Gabaldon et al. 2016; Ragins et al. 1998).

The second category of factors to take into consideration refers to firm's features which can have an impact on board gender diversity. Common findings suggest that the firm size is positively related to the likelihood of having women in corporate boards (Grosvold et al. 2007; Hillman et al. 2007). The explanation of this phenomenon can be found in the fact that larger firms have to respond to social pressures for greater board gender diversity, especially in case they are also listed on financial markets. Moreover, focusing on the size of the board, it has been seen that larger boards tend to have more female directors; thus, it is possible to affirm that the board size is positively related to the presence of women in the boardroom (Terjesen et al. 2009). Finally, the presence of female directors has been investigated also in relation to the type of strategy the firm embraces: certain corporate strategies are positively related to the presence of female directors. Specifically, scholars show, for instance, the existence of a positive relation between the CSR strategies and female board participation (Bear et al. 2010; Rao and Tilt 2016).

The third category of factors, to which the literature has paid attention during recent years, clusters the industry aspects. Along with this perspective, some scholars highlight that gender diversity in the boardroom is greater in public and non-profit sectors compared to for-profit industries (Du Plessis et al. 2014; Terjesen et al. 2009). Specifically, the arts, the health care, the media, and the retail sectors present a larger amount of female directors, while industries like construction, energy, and information technology show a much lower amount of female directors (Hyland and Marcellino 2002; Magnanelli et al. 2017b). Hence, it seems that the cultural contexts are more favourable to women since their typical characteristics are relevant and necessary for the type of activity delivered in these sectors, confirming the aforementioned attitude and psychological aspects typical of the feminine sphere.

Finally, the last category of factor refers to country aspects since the features of a nation seem to affect the board gender diversity level. In fact, as pointed out by Grosvold and Brammer (2011), the amount of females in boardrooms depends on economic, cultural, regulatory, and corporate governance institutions. For instance, the national cultures have a role in terms of board diversity: countries showing more male-influenced and male-dominated characteristics present a lower amount of women in the boards of their firms (Carrasco et al. 2015). Coherently, in countries where political positions are held by women, there is a higher percentage of female directors on the corporate boards and leadership positions (Chizema et al. 2015). In addition to that, Terjesen et al. (2015) show, in their empirical study, that countries offering support to women in order to facilitate their participation in the labour market are most likely to enact the mandatory gender quota for corporate boards.

Age Diversity

Another element of diversity, included among the personal attributes, is the age of the members of the BoD. The empirical evidence shows that nowadays the majority of the boards is composed by directors who are old and with a lot of experience. Different opinions foster the debate about the age that directors should have. Clearly, old directors can provide the firm with the benefits arising from their expertise, since past experiences are a precious source of learning economies. Nonetheless, the old age can represent a constraint for the firm because it could lead the company to operate with an old-fashioned way of thinking and to be suddenly not competitive on the market anymore. Indeed, younger directors can

represent an important source of advantage for firms providing newer and fresher ideas thanks to their different knowledge backgrounds and life experiences. Nevertheless, generational diversity in the boardrooms is often undervalued compared to other types of diversity. An exception of this comes from a study conducted by Barrett and Lukomnik (2017) on the corporate boards of the firms included in S&P 500. According to the findings of the author, in 2014, the directors' average age was 62.4 years without any significant difference by company size or by industry segment. Moreover, most of the companies' boards (approximately 55%) had three decades represented on their boards, specifically the fifties, the sixties, and the seventies. Only in a few companies (approximately 5%), boards had five or six decades represented. An interesting final evidence the author highlights refers to a decrease in the average age of their directors in 2016 compared to 2014 for nearly half (42%) of the analysed boards presented. This trend indicates that firms have started to consider the importance of having also young directors in their boards and they have started to introduce an age diversity criterion in board composition.

Ethnicity Diversity

A more recent issue in personal attributes affecting diversity is represented by the ethnicity. Ethnicity diversity consists in having directors coming from different countries, cultures, tradition, and religious belief. This aspect of diversity seems to be relevant especially for international firms since different ethnical backgrounds better represent each area of the market in which the firm operates. In fact, despite worldwide companies seem still reluctant in hiring board members with different ethnicities, empirical studies show that ethnicity diversity is significantly positively correlated with firm's performance due to a higher knowledge, creativity, and innovation that impact positively on financial results (Jhunjhunwala and Mishra 2012). Indeed, ethnicity diversity is seen by several scholars as an element that broadens knowledge, professional experience, and way of thinking through the different cultural backgrounds hold by the different directors. In fact, generally speaking, the heterogeneity in the way of thinking, in the ideas, and in the way of acting of the management will improve the management performance (Hambrick et al. 1996). Thus, the ethnicity diversity among board members can bring many experiences and knowledge about the various markets and various types of customers that are even more relevant nowadays considering the global environment,

in which firms usually operate. Despite the general consensus about the relevance of this personal attribute in investigating diversity, the difficulties in carrying out the data collection on each board director push many scholars to use the nationality as a proxy of the ethnicity. Nationality is a proxy of the ethnicity because actually individuals may have a nationality although they or their family are originally from a different country. Nevertheless, nationality diversity can bring to the firm not only a diversified knowledge and way of operating implying a more global board also in terms of actions, but it can bring to the firm more contacts, creating a broader network that includes international connections, particularly relevant when the firm is a multinational one (Oxelheim and Randøy 2003). The flipside of the coin is that a diverse board in terms of nationality diversity can also face some communication problems and, as a consequence, personal conflicts among directors could arise. In sum, the heterogeneity among individuals can lead also to a decrease in cooperation and generates communication barriers (Putnam 2007).

Educational Level Diversity

Finally, a last personal attribute to take into consideration in our analysis is the educational level. This type of diversity pertains to the mix of directors' highest educational achievement. Specifically, the educational level relies on two aspects: (i) the level of instruction that has been achieved by the director and (ii) the subject studied by her/him. As far as the level of instruction obtained is concerned, four levels are usually considered: (1) high school diploma, (2) bachelor degree, (3) master degree, and (4) doctoral degree. Instead, the type of subjects that were studied by the director refers to her/his specialization (e.g. business administration, law, finance, philosophy, classical studies, and so on). This aspect seems to be relevant because it affects the type of knowledge and the decisional process of each member of the board and, indirectly, the board as a whole. In fact, the way a person thinks and approaches specific situations, challenges, and problems strongly depends on the competencies, skills, and knowledge she/he matured during the path of education. Although educational level is often investigated as a diversity variable (e.g. Amason et al. 2006; Jehn and Bezrukova 2004), some scholars affirm that no specific instruction requirement is needed to better operate in the board (e.g. Rose 2007).

To sum up, the interest for the personal attributes as a measure of the individual diversity dimension demonstrates that minority groups have the

potential to stimulate divergent thinking in the decision-making process, not only about the primary topic of conversation but also on related topic (Crano and Chen 1998). As a matter of fact, however, not all authors agree on the usefulness of this diversity dimension within a corporate board, sustaining that personal attributes are not determinant if they are not correlated with other important variables. For example, Westphal and Milton (2000), in their study aimed to investigate on how demographic minorities in corporate boards can influence the firm, show that demographic diversity is relevant in a corporate board only if the minority directors have a prior experience in a major role in another board of directors or if she/he has direct or indirect social network ties with other directors.

3.3 Why Board Diversity Is Important?

The board of directors, being the main and highest governing body of the firm, is an example and sets examples about prioritizes, diversity, inclusion, and equal opportunities for the whole firm. Thus, if this governing body is not heterogeneous and inclusive, it lacks credibility with the whole firm's management and employees. The international literature has identified at least three main reasons to underline the importance of corporate board diversity: (i) the occurrence of recent failures in corporate governance systems, (ii) the pressure exerted by advocacy groups and institutional investors, and (iii) the emergence of new equal opportunities legislation.

3.3.1 Recent Failures in Corporate Governance

The corporate governance has always been under the lens of scholars and practitioners since it involves the top figures leading the firm and it has a direct and indirect impact also on the firm's decisions, outcomes, and value. Because of this, the corporate governance has been impeached and its mechanisms and elements have been questioned every time a corporate scandal occurred. In fact, the empirical evidence shows how, when a corporate scandal happens, the main causes are usually attributable to a poor governance system implemented in the firm, opening the way to the analysis of the corporate governance failures. The governance system, in fact, should assure that the interests of shareholders and management are aligned through the creation of the preconditions for correct managers' behaviours finalized to increase the value of the firm. Failing

this, managers can act pursuing their personal interests, exploiting the firm and its resources and causing a detriment in its value. In such situations, it means that the control over the top management is not effective due to lacks existing in the corporate governance structure of the firm, as some striking examples of corporate scandals demonstrate. Among these, one of the major cases that have risen the attention on the problems deriving from a bad corporate governance system is represented by the failure of Enron's board in attempting its duties and responsibilities.

Enron was one of the most important energy, commodities, and services firms in the USA, with approximately 29,000 employees and claimed revenues of nearly $101 billion during 2000. Moreover, the firm was the largest energy trader in the world and was awarded by Fortune as the "America's Most Innovative Company" for six consecutive years. Despite these successes, in 2001, suddenly, its financial fraud bankruptcy was declared. The investigations, carried out by the authorities, led to discover that the company, in the latest years before 2001, cheated the financial statement numbers, boosting the reported earnings in order to convince the market that the previously experienced growth was continuing and it didn't arrive to an end. It seemed impossible that a firm considered to be one of the top 10 firms in the country, by turnover and equity, could have collapsed so quickly and without warning signs. Which was the role of the board within this financial scandal? Which were the faults of the directors? The Enron executives were charged by the Federal indictments about the creation of off-balance entities to hide billions of debts. The US Senate Report of 2002[5] titled "The Role of the Board of Directors in Enron's Collapse" cites: "The Enron Board of Directors failed to safeguard Enron shareholders and contributed to the collapse of the seventh largest public company in the USA, by allowing Enron to engage in high-risk accounting, inappropriate conflict of interest transactions, extensive undisclosed off-the-books activities, and excessive executive compensation. The Board witnessed numerous indications of questionable practices by Enron management over several years but chose to ignore them to the detriment of Enron shareholders, employees and business associates". These facts have been mainly attributed to the lack of independence between the board and the management. In fact, when this happens, the board ceases to perform its function of monitoring the management and becomes an integral part of the fraud mechanism implemented by the CEO, the CFO, and the rest of the top management team.

In 2002, another glaring company fraudulent bankruptcy was declared: the WorldCom bankruptcy. The SEC charged the company with massive accounting fraud: in fact, the company gave the appearance of the generation of hundreds of millions in sales and cash revenues that did not exist at all. This cheating behaviour was implemented by the company's executives, who were also receiving huge compensation packages based mainly on the earnings reported in the financial statements, but that in practice were not actually realized. In the same year, another financial scandal was registered at Adelphia Communications Corporations, the fifth-largest cable company in the USA, before filing for bankruptcy. As a result of investigations, some of the executive directors, among which the CEO, together with his two sons and two other executives, were accused of conspiracy, of securities fraud, and of looting several billions of dollars from the company.

After these fraudulent bankruptcies, several other consistent bankruptcies and scandals occurred in the USA. For example, with particular reference to Italy, the most known case was the Parmalat corporate scandal. Even in that case, the board did not represent the shareholders' interests. Parmalat, at the time the financial fraud occurred (2002–2005), was a company presenting a majority shareholder, Mr. Tanzi, who was also the founder. He was the CEO, and he was sitting on the BoD as president. The other members of the board, all male directors, were linked to him or to the firm with personal or economic relationships; thus, no one was truly independent even though three members were actually declared as independent directors. Thus, there were no representatives of the board that were actually protecting the minority shareholders. Moreover, the cheating behaviour implemented by Mr. Tanzi was supported and hidden by some other directors; thus, there was no controlling activity over the management at all. As a consequence, Parmalat was a case of massive fraud where 16.8 billion of Euros went missing and the true value of its debt was eight times more than the debt it admitted to (Clarke 2007).

The cases previously described are only a little part of the numerous corporate scandals occurred from the beginning of the 2000s. These occurrences have led to more and more question the board and other governance mechanisms feature (Magnanelli 2012; Magnanelli et al. 2017a), including the CEO hubris, in terms of overestimation of one's abilities, overplacement, and overprecision (Picone et al. 2014). Specifically, academics and practitioners have started to investigate with a keener interest in how the board characteristics and features influenced and had

a role in the occurrence of these adverse situations. Analysing the various aspects of a governance system, and focusing in particular on the board's features, the attention has been increasingly paid on the diversity of the board, questioning whether this diversity could effectively enhance the quality of the governance system, could lead to a more efficient monitoring process, and could guarantee a wiser decision-making process. In other words, the recent analysis of corporate governance is addressed to understand how the structure of the board should be defined in order to add value to the company. More specifically, this means to comprehend under which conditions, in terms of effective composition and size of the board and in terms of real engagement of its members, this body can properly discharge its duties and responsibilities.

In achieving this goal, the diversity within the BoDs seems to play a significant role: this dimension, in fact, should assure at least a more independent board, through the combination of executive, non-executives, and independent directors. However, the different aspects of diversity are still under the lens of investigation by several scholars in different countries. The reason for this never-ending research relies mainly on two factors. First, worldwide there are several corporate governance systems, and different governance systems necessarily present different characteristics and features (Magnanelli 2013). This implies, as a consequence, a diverse effectiveness of the governance mechanisms: mechanisms that work well in governance systems that are market oriented (such as the one adopted in the Anglo-American countries) may not perform the same effectiveness in governance systems that are bank oriented (such as in the non-Anglo-American countries). In sum, the results of the studies will be different depending on the country in which they are performed. The second reading key of this deep and abiding interest in corporate governance can be found in the difficult relation between its main features and their effects on the firm's outcomes. Most of the time, the link is not expressed by a direct relation since other variables can interfere. As a consequence, the pure effect of each governance characteristics cannot be captured or isolated. In other words, a potential endogeneity arises when analysing the effect of governance variables on the firm's outcomes, facing the possibility of the existence of a reverse causality among variables (Brown et al. 2011).

3.3.2 *The Role of Institutional Investors and Advocacy Groups*

The second reason why diversity within boardrooms has become nowadays a crucial matter can be found on the pressure from institutional investors and advocacy groups.

To deeply understand this reason, we need first to concentrate the attention on the relevance of institutional investors. Nowadays, these subjects, such as pension funds, insurance companies, mutual funds, and the fund managers, play a fundamental and critical role in the worldwide economy. In fact, during the last decades, their relevance increased dramatically due to the concentration of wealth in their hands that has accelerated significantly. As the OECD mentioned in a white paper on corporate governance, "the emergence of institutional investors as the dominant holders of financial assets and as increasingly important participants in capital markets is one of the distinguishing features of the present financial landscape" (OEDC 2003: 9–10). The consequences of this increasing importance have also an impact on the firms' corporate governance and, more in general, on the corporate governance's best practice indications (Clarke 2007). Institutional investors hold the relative majority of the shares in many companies and they are also active investors. Thus, having a voice in the shareholders' meetings, they elect their representatives on the board, assuring a better control over the executives and the management. Through the presence of their representatives, the institutional investors influence the corporate governance system and the functionality of the firm, and in doing this, they effectively protect the shareholders' interests. Moreover, they are usually the first at giving the best examples in terms of corporate governance practices. For example, in 1997, the TIAA,[6] the world's largest pension fund, was the first to adopt a policy statement promoting corporate board diversity. In sum, institutional investors, being active shareholders and being also firms themselves, use their influence to promote and/or support corporate governance standards. Since the first recognition included in the Cadbury Report (Committee on the Financial Aspects of Corporate Governance and Cadbury, 1992), numerous official documents and reports attribute such driving role to institutional investors in the implementation of better standards of corporate governance.

Nevertheless, also a completely different perspective is provided by some authors about the effect of the presence of institutional investors in the companies' ownership. Considering that these subjects want to attract

as much household savings as they can, in pursuing this goal they focus on the high returns of their portfolios and they constantly tend to restrict them to maximize yields. In doing this, they actually focus on short-term profit investments instead of focusing on investments that are profitable in the long run and add value in a longer period of time (Lazonick 1992). Acting in this manner, rather than representing shareholders' interests (normally based on a long-term horizon perspective and oriented to the value creation and to the survival of the firm), they generate pressures on the short-term expectations than could be counterproductive for the firm. The focus on short term is highly risky for the firm because, in order to meet short-term profit goals, investments tend to decrease. This decision becomes more and more hazardous and dangerous when the reduction in investments involves relevant areas that would assure competitiveness and survival in the long run of the firm, such as the research and development programs, the marketing plans, or the maintenance activities.

Coherently with these considerations, the corporate governance can benefit from the presence of these types of investors only when they hold the shares with a long-term perspective, and thus, their intent is not price-based transaction. In fact, institutional investors might help breaking the vicious cycle determined by the short-term expectations pushing and promoting several firm's aspects (Clarke 2007). First, they could push the ending of the practice of providing quarterly profit results. Second, they could promote executive compensation plans based on long-term performance goals. Third, they should promote corporate leadership communication based on long-term performance benchmarks. Forth, they could favourite the written communication to shareholders of the corporate long-run investment strategies the firm intends to implement. Last, they could promote the dialogue with financial market representatives and leaders in order to understand how their firm is evaluated and to educate investors and financial markets in long-term fiduciary.

To allow and support the positive attitude of institutional investors, the corporate governance becomes essential being the tool through which the firm is organized and operates at the top managerial level. Moreover, as some institutional investors suggested, corporate governance, as well as human capital practices and the social and environment impact of the firm activities, could be used as leverages to produce a long-term effect on the firm's outcomes. As previously stated, nowadays institutional investors are also seen as subjects that drive and provide good examples of corporate governance. Thus, introducing as first element of diversity in their

board, as TIAA did acting as first mover, is a signal for all firms to move towards more diversified boardrooms. Later, following this wave, many other institutional investors and private companies have decided to adopt a similar policy.

In addition to institutional investors, also the public opinion, the shareholders' proposal from advocacy group, and policy statements have highlighted consistently the matter of diversity in boardrooms (Carter et al. 2003) and their voice became particularly relevant in the last decades. For instance, the Interfaith Center on Corporate Responsibility (ICCR), a coalition of shareholders founded in 1971, has been one of the first institutional groups engaged in promoting many proposals to increase the diversity within the boards. In addition, the National Association of Corporate Directors Blue Ribbon Commission recommends taking into consideration gender, ethnicity, and age diversity in appointing directors. Moreover, the real evidence shows how important is for the public opinion to see the firm's propensity towards board (and other organizational teams) diversity: when Facebook launched its IPO, its governance structure was made public. The board was composed by seven members, all male and all white, and the immediate reaction was an article by Carol Hymowitz, titled "No Women on Facebook Board Shows White Male Influence", and published on Bloomberg, claiming the lack of diversity in the Facebook's boardroom. Aligned with this evidence, Hillman et al. (2007) argue that having no women on the board generates a negative image of the firm and increases the risk of losing the support given by the most relevant stakeholders such as investors, clients, and suppliers that care about equal opportunities for the female gender.

Nevertheless, we should consider another relevant aspect that some scholars recently pointed out (e.g. Knippen et al. 2019): when it comes from external pressures, does diversity really generate a more diversified and better board? The question is relevant because if companies increase the diversity just for appearance reasons or just for being compliant with laws and rules, the risk is that the greater diversity is not translated in new and more prepared directors but only in directors having different characteristics, not necessarily leading to a better board outcome. Clearly, this problem arises during the selection process of new directors.

3.3.3 *New Requirements from the Legal Framework*

The third reason why today diversity is important concerns the pressure coming from the legal environment. In fact, recently, new laws have been introduced obliging firms to modify the selection criteria of the members of the board, asking for a greater diversity, especially in terms of gender. Nevertheless, before focusing on the requirements about diversity that have started to spread worldwide, we will first focus the attention on the corporate governance standards existing around the globe and seeking for good governance practices.

Since ages, practitioners and academics have looked for standards of good governance that companies should adopt. The huge multitude of studies about corporate governance demonstrates that actually there is no unique set of standards that fit for everybody. The reason simply relies on the fact that several corporate governance systems exist worldwide and each of them has its own characteristics. We have to go back in time to understand that the existence of several corporate governance systems depends on the culture and on the history of the country in which the single system has been developed. Corporate governance systems are created on governance mechanisms. Therefore, different corporate governance systems will rely in a different way on the several governance mechanisms available. To cite one example, in the Anglo-American countries, where most of the companies have a market-based governance system, the market for corporate control is one of the most relevant and effective external corporate governance mechanisms; while in the countries presenting a governance system that is bank oriented, the same mechanism is not so effective (or completely useless in some cases). Thus, it seems impossible to have a unique set of governance standards that work for every company, in every country. Nevertheless, there are several points on which the largest part of the literature agrees, and, on these common aspects, policymakers and practitioners worldwide have started to create some corporate governance codes. As already mentioned in Chapter 1, from a chronological point of view, the first corporate governance code was developed by the Cadbury Committee in 1992, in UK. The Committee issued the Code of Best Practices that, because of its innovative indications, immediately became a benchmark for corporate governance issues. Indeed, the standards provided in this code were promptly adopted as requirements by the London Stock Exchange, and then, they were also largely adopted by the New York Stock Exchange.

These requirements were mainly focused on recommending the independence of the largest part of the board members, the separation between the CEO and the chairman of the board, and the monitoring and reducing the conflicts of interest at board level.

Nevertheless, after the major scandals and governance failures occurred at the beginning of the 2000s, many other regulations and guidelines have been proposed worldwide by several countries because the perception was that the compliance with the requirements expressed by the Cadbury Report did not fully attempt the needs of the companies in terms of good governance. One of the most relevant legislations in terms of corporate governance can be found in the Sarbanes-Oxley (SOX) Act, issued in 2002. This act is mainly focused on improving the corporate controls and reducing the conflict of interests. It also introduced criminal penalties for top managers (in particular for the CEO and the CFO) that voluntarily misrepresent numbers in the financial statement. After the SOX Act, many other legislations and guidelines were generated, not only in the USA, but by most of the countries worldwide. In all the cases, the final aim in generating and promoting the adoption of new regulations on this topic was the creation of a better governance structure allowing firms to satisfy and protect shareholders, maximize their value and not failing. In achieving these goals, some countries' codes were created to introduce mandatory requirements and rules. For example, in Italy, the Draghi Reform first, issued in 1998, and the Preda Code later, published in 1999, defined a governance code of conduct for listed companies, obliging also these firms to disclose several information about their corporate governance structure. Similarly, in Germany, the Baums Report was published in 2001, together with the Cromme Code in 2003, presenting statutory regulations in terms of governance for listed companies. In other countries, codes were introduced in order to recommend certain practices in terms of governance instead of imposing mandatory requirements. In Spain, for example, the corporate governance principles were published in 2004, providing Spanish firms with a set of principles seen as good governance practices. Previously, in 2001, in Denmark, the Norby Report was published as a way to introduce several recommendations related to governance issues for listed companies.

Additionally, institutions, such as the Institutional Shareholder Services (ISS) in USA, published governance ratings on single firms, highlighting the good and the bad aspects of a governance system, basing the judgement on some criteria perceived as indicators of governance effectiveness.

However, the useful of these ratings is still doubtful because the accuracy and the forecasting power of the ratings have not been shown yet.

Despite the copious amount of regulations and guidelines on corporate governance standards, companies are still failing due to lack in their governance system. This fact highlights the issue previously presented: unique standards do not fit for all companies. Moreover, the very fast changes occurring in the economic and business environment do not help the creation of uniform corporate governance standards (Larcker and Tayan 2016). Among these external factors that make the standardization difficult, first we can find private equity firms since they have governance systems completely different from most of the listed firms. These firms, for instance, operate with a very low level of independence within the board. Moreover, they are characterized by very high remuneration given to senior executives, which is considered as a bad practice in terms of governance and for the value creation of the firm. Thus, should companies adopt some governance practices of private equity firms or not? Not everybody agrees on this issue, providing opposite views and not finding a unique set of standards.

In brief, as stated by a report issued by the UK Department of Trade Industry (2001), even though the corporate governance codes are spreading worldwide, their beneficial impact remains doubtful and it is seen more as a mean to avoid firm's wealth reduction than as a tool that adds and promotes wealth creation.

Having considered the main different corporate governance codes applied worldwide, we put the base for the analysis of the requirements imposed by domestic and international laws.

Requirements in terms of diversity have been issued over the years by several countries. A common aspect among all international requirements is the focus on the independence of the directors and their gender. As far as the independence is concerned, nowadays almost all jurisdictions, on the one hand, require or recommend a minimum number or ratio of independent directors and, on the other hand, require directors to be independent of significant shareholders in order to be classified as independent. Moreover, according to OECD Corporate Governance Factbook (2019), another universally accepted requirement or recommendation is the separation of the board chair and CEO as well as the presence of an independent audit committee. On the contrary, nomination and remuneration committees are not mandatory in most

jurisdictions, although more than 80% of jurisdictions at least recommend these committees to be established and often to be comprised wholly or largely of independent directors. Finally, domestic regulations call for a risk management role to board-level committees and suggest to implement internal control and risk management systems (OECD 2019).

Focusing on the gender diversity, the international evidence and the overall debate show a more heterogenous context. According to a research conducted by the Institutional Shareholder Service (D'Hoop-Azar et al. 2017), a proxy advisory firm, in more than 30 countries around the world, the amount of female directors increased from 14.5% in 2014 to 16.9% in 2016. This result is the outcome of local policies: some countries have adopted mandatory gender quota laws, while others have just published recommendations about a minimum gender ratio; thus, in this latter case, firms can voluntary decide to follow or not the recommendation. It is easy to understand that the type of regulation adopted has a significant and different impact on the number of women on boards in the different countries.

The pioneer countries issuing laws concerning diversity are the Scandinavian ones. Norway was the first nation in Europe to take actions in order to ensure a higher diversity, in favour of gender composition of the boards. In fact, in 2003, Norway approved a specific law demanding at least 40% of the BoD members to be of the less represented gender. In the first few months after the introduction of the mandatory gender quota, the firms slightly suffered, due to the change in the composition of the directive body, but later both successful firms and those in difficult straits showed an enhancement in their performance. Unfortunately, the evidence also showed that there were not many relevant revolutions in the direction of these firms: only a small percentage of women have tried to change the trend of the strategies and proposed a managerial line different from the previous one. Nevertheless, still nowadays, Norway is the country presenting the highest level of women in boardrooms worldwide.

After Norway, many other European countries introduced a mandatory gender quota, such as Spain (2007), France (2011), Denmark (2005), Iceland (2010), and Italy (2011).

Besides the introduction of the mandatory gender quota, other recommendations issued by the European Union (EU) recently came out in order to enhance diversity and more opportunities for minorities in the

workplace. The most important directives on these topics are the Employment Directive (2000), the Race Directive (2000), and the Directive on Equal Opportunities for Men and Women (2006). These directives led to a change also in the national regulations in various countries belonging to the EU.

As far as the Italian scenario is concerned, the most recent law in terms of gender board composition was introduced in 2012, when the Golfo-Mosca Law (law 120/2011) has started to be in force. This law sets an important change for Italian firms: corporate boards of listed companies, expiring after 12 August 2012, had to be renewed by reserving a quota equal to at least one-third of their members to the less represented gender. Moreover, the statutes of the companies must be modified, under penalty of the forfeiture of the administrative and control bodies. Specifically, in case the firm is not compliant with the law within three board terms, it will be firstly sanctioned and further the non-fulfilment of the required mandatory gender quota will result in the forfeiture of the administrative or control body. This law has a temporal validity of only ten years; in fact, it will be in force until 2022, when it will lose the effectiveness and there will no longer be requirements for board composition. This period of time was considered by the domestic legislator a sufficient time horizon to remove the obstacles that so far have limited women's access to leadership roles, encouraging a process of cultural renewal and a greater meritocracy. Thus, in these ten years, women who sit on the boards of directors will have the responsibility to affirm their skills and to contribute to the creation of a new vision about corporate governance.

Besides the European countries, other nations around the world present some requirements in terms of gender diversity in the boardroom. For instance, India has a mandatory requirement of having at least one female director. The same requirement also exists in Pakistan. This is not a very relevant change,[7] but it can be seen as a first step. In fact, in countries where there is no specific gender quota law requirement, the number of female directors remains very low. For example, in 2016, Russia, Greece, Japan, and Brazil have on average only 5–10% of female directors, while China, Portugal, India, and South Korea registered on average 10–15% of female directors (D'Hoop-Azar et al. 2017).

Laws and recommendation are not the only drivers leading to a higher percentage of female directors. Cultural aspects have to be considered as well. For instance, in Sweden, despite the soft law on the subject, firms are more than compliant with the requirement because Sweden is one

of the best countries in terms of gender parity opportunities. In general, the Scandinavian countries have, in fact, several gender parity opportunities laws that allow the balance between professional career development and family life for both the genders. In USA, where there is no hard law on the gender quota as well, the society is asking and is acting with campaigns and organizations to promote the higher percentage of women in corporate boards. Thus, the culture of the country has an active role in promoting the higher gender parity in boardrooms. Completely opposite case can be found in India. Even though a soft law exists, as mentioned before, the culture of the country does not promote the gender parity at all; thus, the majority of the firms only meet the minimum requirement just to be compliant with the law and not paying any fine.

A last aspect to consider in order to fully understand the increases in the rates of female directors relies on the evidence that firms having a significant percentage of female directors usually tend to appoint more easily other female directors; moreover, also the senior leadership positions, such as CEO and CFO, are more often held by women when in the board there is a large number of women. Considering that the senior leadership positions are also those which drive executives into board seats, supporting the increase of female senior managers will also increase the rate of women in boards.

3.4 Benefits and Costs of Diversity

As already highlighted, board diversity, in all its aspects, is still a heated debate. Thus, it is relevant to highlight all the potential benefits deriving from it, as well as all the potential costs associated. Therefore, in this section, the benefits and the costs deriving from a heterogeneous board of directors are presented, following the taxonomy proposed by Ferreira (2010).

3.4.1 Potential Benefits

Board diversity can generate numerous potential benefits for firms. First, it increases the heterogeneity in the way of thinking inside the boardroom. In fact, people with different origins, life experiences, and personal attributes are likely to approach issues in a different manner. This should solve one of the major problems that affect boards' effectiveness: homogeneity in terms of groupthink, which leads to the so-called aligned

boards. Groupthink can be described as a psychological phenomenon arising in a group of people in which the desire of agreement and conformity generates an irrational or dysfunctional decision-making outcome (Turner and Pratkanis 1998). Undeniably, boards have been traditionally characterized by being a homogenous group of people, holding similar socioeconomic backgrounds, similar level and typology of education and knowledge, and similar professional training and, as a result, have a similar approach about business issues (Domhoff 1970). Thus, what often occurs within these "elite" boardrooms is that directors, in order to minimize conflicts and reach consensus, in case of different opinions, take decisions without the critical evaluation of the minorities' points of view. In fact, when elites take decisions, they are influenced by their past experiences and demographic characteristics (Cyert and March 1963; Hambrick and Mason 1984). Diversity could solve this problem promoting the formation of a heterogeneous BoD, laying the groundwork for a decision-making process based on more diversified perspectives and points of view.

Second, diversity is crucial for promoting the image and the reputation of the firm. A firm that cares about its people and its stakeholders, showing itself democratic and committed to management, is a firm that demonstrates great social responsibility (Bear et al. 2010; Rao and Tilt 2016; Zhang 2012). Thus, having a more diverse board can be a tool to acquire legitimacy with the public opinion, the media, the government, and all the other stakeholders.

Third, relying on the resource perspective framework, a diverse board is a source of wider and easier access to several players and institutions, as well as to investments and other resources that directors can bring to the BoD thanks to their various contacts deriving from previous and differentiated experiences and backgrounds. In fact, as pointed out by Pirolo and Presutti (2010: 205), "the patterns of social capital are strongly conditioned by the social context where business partners are embedded". This is consistent with the social capital theory (Baker 1990; Coleman 1988, 1990) and, more specifically, with the configuration of strong and weak ties of social capital (Granovetter 1973, 1995) in influencing firms' relationships (Pirolo 2013), strategies, and performances (Pirolo and Presutti 2007).

Finally, the introduction of diversity in BoDs has also a deep symbolic meaning: a heterogeneous group, which includes diverse minorities, can be a signal also for employees on how the company is committed to

promote minorities at all levels. Moreover, considering that career promotion for the highest levels is proposed and deliberated by the BoD, boardroom diversity can support and encourage the implementation of a non-discrimination policy for managers belonging to a minority. It has been demonstrated by several studies that in particular when the gender diversity aspect is considered, the gender diversity in the board tends to increase the equal opportunities, at least in terms of selection and remuneration (García-Izquierdo et al. 2018; Westphal and Zajac 1995).

In sum, the above-mentioned advantages generated by the board diversity suggest that firms, characterized by a greater diversity in the boardroom, could present greater creativity, better comprehension of the market, and more effective problem-solving and enriched capabilities. Thus, it seems that board diversity leads the firm towards the achievement of the competitive advantage, bringing also long-term benefits in terms of outcomes.

3.4.2 Potential Costs

Despite the benefits it generates, board diversity is also a driver of new potential costs for the firm. The extant literature has developed the concept of *group faultiness* (Thatcher and Patel 2012) to describe that phenomenon generated when within a group two or more subgroups arise, in force of the alignment of one or more individual attributes. As a consequence, lack of communication and an ineffective sharing of information among the various subgroups can occur. If this happens, the group cohesion will be reduced and the decision-making process may reflect the inefficiencies due to the lack of common points of view (Hambrick et al. 1996). Moreover, the decision-making process could also take longer due to these inefficiencies leading to huge problems if the firm operates in a dynamic environment where the fastness in answering to the environment's challenges is a key factor. In this perspective, diversity can impact negatively on the firm's performance and on its value.

Another relevant potential cost of diversity relies on the choice of the board members. Directors have to be hired considering their qualifications. Looking only (or mainly) to other characteristics, just to increase diversity in the boardroom, is certainly not the right way to select the board members. This problem often arises, because qualified candidates belonging to a minority can be in short supply. Thus, in this case, candidates not appropriate for the role of directors but belonging to that

particular minority group will be chosen in the name of diversity, without implementing a wise selection.

Finally, even though having in the boardroom directors who have several links with many institutions can be a point of strength in terms of diversity, as stated by the resource dependence theory, this situation could also generate problem of conflict of interest between the firm and the directors. In fact, some of them could behave following their personal interests, pushing their agenda for increasing their status, remuneration, and benefits, at the expenses of the company.

Notes

1. Specifically, the authors, starting from the identification of different types of diversity in group composition at various organizational levels (namely: boards of directors, top management groups, and organizational task groups), state that diversity affects firm's turnover and performance through its impact on affective, cognitive, communication, and symbolic processes.
2. This definition is provided by the New York Stock Exchange Listed Company Manual, the Exchange's basic handbook of policies, practices, and procedures for listed companies developed to aid firms in fulfilling the Exchange's requirements for submitting data on a timely basis. The manual can be consulted at this link: https://nyseguide.srorules.com/listed-company-manual.
3. The UK Corporate Governance Code, formerly known as the Combined Code, is a part of UK company law and provides a set of principles of good corporate governance aimed at companies listed on the London Stock Exchange. The code can be consulted at this link: https://www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.PDF.
4. The European Confederation of Directors' Associations (ECDA) is a not-for-profit association, founded in December 2004, to represent the views of company directors from EU member states to corporate governance policymakers at EU level.
5. Full report available at: https://www.govinfo.gov/content/pkg/CHRG-107shrg80300/pdf/CHRG-107shrg80300.pdf.
6. The Teachers Insurance and Annuity Association of America-College Retirement Equities Fund (TIAA, formerly TIAA-CREF) is the leading provider of financial services in the academic, research, medical, cultural, and governmental fields. TIAA participates at more than 15,000 institutions.

7. The literature labels these policies as "soft laws", distinguishing them from the so-called hard laws referred to stronger mandatory gender quota.

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CHAPTER 4

Board Diversity and Firm Effects

Barbara Sveva Magnanelli and Luca Pirolo

Abstract This chapter proposes a systematization of the different impacts of board diversity on the firm. Since the board acts as the main governing body, its characteristics affect its way of operating and, as a consequence, its outcomes. The authors review extant literature on the various types of effects that board diversity generates in relation to the corporate social performance of the firm, the organizational performance, the firm's innovation, and the risks faced by the firm. Furthermore, the chapter provides a deeper focus on the effects of the board diversity on the firm's financial performance, being also propaedeutic to the development of a new conceptual framework proposed by the authors and illustrated in Chapter 5.

Keywords Board diversity · Firm performance · Corporate social responsibility · Innovation · Risk

4.1 Board Diversity and Firm Performance: A Theoretical Overview

The main goal of the firm is the profit maximization and the creation of value for shareholders, or, in a broader perspective and according to the stakeholder theory, the safeguard of all stakeholders' interests. Thus, this

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chapter aims to investigate the concept of performance and the techniques to measure it.

There are several definitions of performance, provided by academics, practitioners, and institutions. The overall performance of the firm is usually named financial performance and it is the performance that refers to the economic results achieved by the company. It is commonly measured through the traditional accounting measures, such as the Return on Equity (ROE), the Return of Assets (ROA), the Return on Investments (ROI), the Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA), or through market-based measures, such as, the most used one, the Tobin's Q, calculated as the going price in the market for exchanging existing assets and their replacement or reproduction cost. However, this is not the only performance that can be measured for a firm. Firms, in fact, provide goods and services to the community that might improve the lives of customers, produce economic value through the transformation of the raw materials, create a workplace that motivates workers, promote new technologies and innovation, and contribute to the growth of the economy and the wealth of the areas in which they operate. Under these perspectives, the outcome created is called corporate social performance and it refers to the positive achievements the firm generates for the community, the environment, and other relevant stakeholders with whom it interacts.

Thus, in order to analyse the firm performance, several perspectives should be taken into consideration. This work focuses the attention specifically on the following types of performance: (i) the corporate social performance, (ii) the organizational performance, (iii) the level of the innovation reached by the firm, (iv) the firm's risks, and, with a more detailed focus, (v) the financial performance. In particular, a deep empirical analysis has been conducted (Chapter 5) to develop the study of the financial performance and the effects on it generated by corporate board diversity. To investigate this aspect, first we need to reconstruct the role of the corporate governance in terms of impact on the firm, and then, we can focus on one of the main mechanisms of a corporate governance system, the board of directors. The international literature suggests that the relationship between corporate governance and performance is still not clear, even because there could be a problem of endogeneity and inverse relation among governance variables and performance variables. Nevertheless, there is a common agreement, also stressed by several longitudinal empirical studies, that a weak governance structure is linked

with a lower performance, while a robust governance structure can be connected with a higher performance (Bauer et al. 2004; Cremers and Nair 2005; Gompers et al. 2003; Vo and Nguyen 2014). Considering the aforementioned relation between the governance and the performance, it is relevant to investigate specifically the impact of the BoD on the performance, since it is the main governance body of the firm. The role of the board of directors is undeniably the most significant in terms of corporate decisions. Carter et al. (2010) offer a framework of the main duties pursued by the boards: controlling and monitoring the managers' way of operating and behaviours; supporting the management team giving them the necessary information and advices; supervising compliance to the laws; and relating the firm to the external environment. All this implies that decisions deliberated by the BoD will certainly impact on the overall performance of the firm, since they concern the key financial and strategic plans of the company (Ferreira 2010).

The composition of the board and the level of diversity within it are elements to be taken into account when debating about the board's performance. As previously mentioned, some theories support the idea that diversity in the boardroom brings to more effective and efficient boards. In fact, diversity among members of the board affects the way it carries out its duties and responsibilities. Thus, in case of a miscellaneous board, diverse talents, knowledges, skills, and capabilities will meet, leading to a more innovative and creative board and making it more effective. In turn, the board's increased effectiveness increases also firm's productivity and performance, and thus, at the end, the shareholder value (Walt and Ingley 2003).

The largest part of the literature agrees on the fact that there is no single theory able to explain the board's performance. Below, the most relevant theories explaining the relationship between board's performance and firm performance are reviewed.

The resource dependence theory, exploring the links between the firm and the external environment, sustains that securing resources from the environment reduces uncertainty and enhances firm's performance (Hillman et al. 2009). Moreover, Carter et al. (2010) highlight that increasing diversity ensures a broader pool of information and resources available for the firm during the decision-making processes which can impact on the final results. Coherently with this perspective, the idea that diversity, achieved through diverse board human capital, increases the capability to secure resources from the external environment and enhances

firm performance by lessening uncertainty, has been sustained in many researches (Pfeffer 1972; Hillman and Dalziel 2003).

The human capital theory is also relevant in this discussion considering that it focuses on aspects such as education, experience, and skills which impact on the competence of the board and indirectly on firm's performance. Specifically, the human capital theory focuses on the stock in terms of education, professional experience, knowledge, and skills that a person can bring to the organization and that can favour it (Becker 1964). Thus, when directorship positions are considered, the knowledge and the skills of the directors influence the effectiveness of their monitoring and decision-making process. Moreover, the diversity given by the ethnical and race factors can enable the firm to fully capture and understand its operating environment. Always under the framework of the human capital theory, some researchers also investigated the benefits of having younger directors in boards. Indeed, these studies show that younger members in the boards can broad the firm's perspectives and enhance the board creativity, leading to a better and more efficient comprehension of the fast-changing economic environment (Cochran et al. 1984; Kroll et al. 2007; Darmadi 2011). However, the human capital theory does not affirm that diversity in the boardrooms necessarily provided a positive result. According to several studies conducted within this theoretical framework, in fact, the effect of the board diversity could be either positive or negative on the financial performance of the firm, because it depends on how the diverse and unique human capital is mixed (Hillman et al. 2002; Peterson et al. 2007; Terjesen et al. 2009).

In short, both the resource dependence theory and the human capital theory rely on the concept that different human capital is fundamental for a better board's performance and consequently for a higher firm's performance. The underlying idea of this statement is the more different directors are, the more variegate key resources will be brought in the firm. In fact, people operating in an assorted group result in being more emphatic and in working harmoniously, with the ultimate consequence of a higher group performance (Roberge 2013).

The agency theory is also related to diversity in the boardroom since it assures higher independence and enhances the board's ability to control managers. Independency also leads to better monitoring processes and it enables independent directors to examine and solve business situations in a more impartial way. Board members, in fact, are asked to act pursuing the interests of the firm and to be able to express opposing opinions to

management when necessary, behaving as fiduciaries to the company and its stakeholders.

At the beginning of the twentieth century, a larger attention has stated to be addressed to the importance of the corporate governance and, more in particular, to the relevance and the role of the board of directors after the occurrence of the dotcom bubble first, of the numerous economic scandals later, such as WorldCom, Enron, Tyco, Ahold, and Parmalat, and of the real estate and financial crisis occurred in 2008. Both academics and practitioners have started to question the importance of board diversity as a tool for good corporate governance. As a matter of fact, diversity has become not only a social subject, but also an organizational issue, impacting on firm's practices.

Nowadays, the international literature seems to agree that diversity, in all its forms, affects firm's performance. Diverse boards with diverse knowledge, expertise, and capabilities contribute to enhance the outcomes of the firm delivering a more heterogeneous approach, a higher understanding of market's needs, as well as multiple solutions and alternative perspectives. In addition, as highlighted by Hoffman and Maier (1966), numerous and different attitudes towards matters increase the problem-solving ability of the group.

Moreover, Milliken and Martins (1996), studying the effects of diversity on organizational groups, underline that there are both short-term and long-term effects on groups. For instance, interrelationships among individuals, groups, and firms are influenced by collective social integration, variety of perspectives, amount and quality of ideas, behaviour of workers, and communication with external subjects. Optimally matching all the factors, firms can catch the opportunity to gain rich long-term benefits that are then translated in a higher performance.

Notwithstanding the positive opinion of the largest part of the international literature, another tide of thought affirms that diversity in the boardroom could actually decrease firm's performance. This is due to the fact that several and dissimilar opinions, especially if emerging from gender diversity, lead to more time consumption in the decision-making process, reducing the board efficiency and enhancing management costs. In addition, it has to be considered that, as pointed out by Frink and Ferris (1998), individuals usually tend to be more comfortable when working with similar people, who have analogous attitudes, culture, and nationality and share same values. Thus, a too variegate group might reduce the firm's overall performance.

In the following paragraphs, some additional considerations on the relationship between board diversity and firm's performance are provided, leveraging on the four types of performance identified.

4.2 Board Diversity and Corporate Social Performance

To analyse the relation between corporate board diversity and corporate social responsibility (CSR), it's necessary to clarify the concept of corporate social performance (CSP). According to Clarkson (1995), CSP can be defined as the firm responsibility towards all the subjects impacted by its actions. Under this perspective, the decision-making process, as well as the strategy implemented, affects all the stakeholders of the firm. Thus, the firm has an ethical responsibility towards these subjects and the management should resolve the unavoidable conflicts between primary stakeholders over the distribution of the enhanced wealth and value generated by the firm.

From an empirical point of view, the corporate social performance can be analysed as a multidimensional construct useful to highlight the effectiveness of the corporate social performance policies implemented by the firm. Thus, the construct can be built according to the number and the value of the CSR policies adopted in order to meet the needs of all the stakeholders, including the ones associated with the local communities, the environment, and the employees. Among the various databases used by scholars to test the CSP performance, the Kinder, Lydenberg, and Domini social ratings data are usually the most commonly used worldwide. Adopting these ratings data, Mattingly and Berman (2006) distinguish two aspects of CSP: the institutional aspect and the technical aspect. The first one concerns the ability of the firm to answer and react to the institutional pressures and to apply policies to sustain the community and the environment. The technical aspect of the CSP, instead, refers to the ability of the firm to create and preserve a good relationship with its stakeholders, especially those that can directly impact on its business, such as suppliers, employees, and clients, in order to create conditions for resources' exchanges, for protecting the product quality, and for reaching clients' loyalty and fidelity.

In order to reconduct the analysis of the CSP to the framework of this book, we aim to illustrate the relationship between this construct and the board diversity studied by previous research. In fact, as mentioned in

Chapter 1, since board diversity affects the firm, generating better control over the management, bringing new resources, and inspiring new ideas in the decision-making process, it seems interesting to analyse its effects also on social outcomes.

Furthermore, the extant literature affirms that broader networks (provided by board members) help the generation of new and better programme of social policies because, first, they increase the capability of the firm to answer to the environmental issues, and, second, they improve interactions and communications with the various types of stakeholders (Beckman and Haunschild 2002). Similarly, it has to be considered that minorities in people working within a company represent also a signal to the community about the firm's dedication to social issues and consequently influence the awareness of its social performance without applying any actual policy, thus, saving monetary resources.

Zhang (2012), studying the board diversity and the CSP of the firm on a sample of publicly traded Fortune 500 firms in 2007 and 2008 and following the approach of Mattingly and Berman (2006) previously presented, finds that gender diversity is positively related to institutional and technical aspects, while board racial diversity is positively related only to the institutional aspect. Thus, the author highlights how having female members in the board increases the CSP, contributing to fulfil the institutional expectations. Moreover, a higher percentage of female directors is also seen by Zhang (2012) as a useful instrument to create and improve relationships with the various categories of stakeholders, thanks to their more social-oriented and more sensitive attitude towards social causes. The other relevant finding the author presents in her study is that the employee status does not present a strong relationship with a positive or negative effect on CSP. This outcome can find an explanation in the independence of the board members: on the one hand, in fact, it is viewed positively by the institutions and all the other stakeholders, but, on the other hand, it is not enough to improve CSP. Thus, Zhang (2012) highlights that the number of independent directors in the board might only help at increasing the reputation of the firm.

4.3 Board Diversity and Organizational Performance

One of the main tasks of a firm should be to guarantee employees a pleasant place to work. This is necessary in order to satisfy the employees' expectations and to assure their motivation once they are at work. The

motivational aspect is particularly relevant because it impacts on the way of operating of the employees themselves. An employee who is motivated generates better performance and reduces the turnover, eliminating the consequent investment and the waste of money in new training.

Considering that an effective management of the workers and employees in the organization maximizes the performance of the resources and let the firm achieving a competitive advantage, the relationship between the firm and its employees seems particularly relevant and should be based on a long-term perspective (Luo et al. 2014).

From a practical point of view, the policies used to create a good and trusty relationship with the employees focus on issues impacting directly on them, such as a higher remuneration, the bonuses and benefits offered, a work-life balance clause, and safer working conditions. Thus, starting from these considerations, it is easy to understand how board diversity can actually improve the relationship with employees at all levels of the organization. Moreover, since that the board has to approve decisions about how to allocate and invest firm's resources, included also those invested in the programmes for the employees, one of the most relevant benefits that minorities in the boardroom can provide to the firm is the broader range of skills, view, network, resources, and knowledge they can bring. In fact, a more diversified knowledge and culture can lead to create a more dynamic and creative board that can improve policies affecting the employees.

The empirical evidence is actually showing this positive relation. For example, studying a sample of 14,000 government employees in the USA, Pitts (2009) finds out that board diversity is strongly associated with the employees' job satisfaction and their group performance. Very similar outcomes have been achieved by other scholars who focused on a sample of for-profit firms in the US context (e.g. Barsade et al. 2000). Along this path of analysis, Li et al. (2018), investigating a sample of firms listed at the NYSE in terms of board diversity and employees' satisfaction, employees' turnover, and employees' loyalty to the firm, find that board diversity is positively related to a good relationship with employees, especially in crisis periods. In fact, during crisis situations, the firm has to take difficult decisions, such as cutting to expenses and downsizing the workforce. In this kind of situation, board diversity becomes crucial, because it might provide a diversified framework of options that allow the firm to easily face and overcome the situation thanks to more innovative solutions.

4.4 Board Diversity and Innovation

As sustained by the resource dependence theory, the board's relevant duties are to guarantee resources to the firm, to provide strategic advices, and to support the networking development useful to achieve a competitive advantage. One of the key elements to get a competitive advantage, and thus to create value, is innovation. Innovation can be defined as a new idea, device, or method or still the implementation of better solutions that meet new requirements, needs, or existing markets. It can lead to radical changes in the society or in the industry and generate new needs (radical innovation), or it can be only a little change which creates higher value for customers (incremental innovation).

Innovation can concern four different aspects (Mohnen and Röller 2005), namely: (i) product, (ii) process, (iii) organization, and (iv) marketing. Product innovation refers to the introduction and the development of a new or significantly improved good or service. It can be completely new for the market and new for the firm or could also be a new line extension. The process innovation concerns primarily the technology used in the process itself. Thus, a process innovation can refer to the improvement of procedures, rules, and activities to get the same outcome, realizing a cost saving. In other words, it leads to a meaningful increase in the efficiency of the current processes. Organizational innovation refers to the enhancement of the business and organizational procedures of a firm. It can concern, for example, the interdisciplinary process, the collaboration and cooperation between employees at different levels of the organization or new ways for managing the relations with external subjects. Finally, the marketing innovation refers to relevant modifications in the package, in the design of the product, in the promotion of the product/service, or in the pricing strategies. Examples of marketing innovations are the introduction of the e-commerce, the loyalty or fidelity programmes, and the variations in the distribution channels.

Existing literature on innovation suggests that introducing several types of innovation (product, process, organizational, marketing) can lead to a higher performance (Mairesse and Mohnen 2005).

But the relevant question is: How can board diversity affect the innovation of the firm?

The board of directors is a crucial element of the firm that also allows and promotes all the innovation activities, influencing the level of innovation implemented by the firm (Zahra and Garvis 2000). As previously

mentioned, board diversity is considered a good way to increase board's performance in terms of monitoring, effectiveness of the processes, and to enhance the amount of resources and networks of the firm. Miller and Del Carmen Triana (2009) highlight the positive effects that diversified boards have on the firm's level of innovation. The authors, in fact, posit that board diversity supplies the organization with diversified human and social capital resources that, in turn, allow the board to come up with newer ideas, to better allocate resources, and to catch more opportunities, thereby increasing innovation.

Moreover, board diversity helps the firm to benefit from the different perspectives brought by the minorities, enhancing the board creativity and the innovative ideas. Thus, more diversified boards could lead to higher level of innovation or could demand for higher innovation.

Galia and Zenou (2012), investigating how board diversity is correlated with the different types of innovation, find significant evidences that board features influence the dimensions of the innovation. Specifically, they find a positive relationship between gender diversity in boardrooms and marketing innovation. At the same time, the authors find also a negative relationship between gender diversity and product innovation. As far as the age diversity is concerned, Galia and Zenou (2012) discover that it is positively associated with the product innovation, but it has a negative impact on the organizational innovation. Finally, focusing specifically on organizational innovation, Torchia et al. (2011) find a positive relation between the board gender diversity and the firm organizational innovation.

Mainstreaming the analysis of the impact of board diversity on the innovation of the firm, it is possible to affirm that nowadays it is still the less investigated one, even though innovation plays a fundamental role for the survival of the firm in the long run. In fact, innovation is considered as one of the most relevant predictors of firm performance because it is a key factor for supporting firms to achieve, maintain, and renovate the competitive advantage (Hitt et al. 1996), increasing its final performances.

4.5 Board Diversity and Firm Risks

Board heterogeneity is a significant aspect for corporate governance because, as presented through previous paragraphs, it impacts on the decision-making process. In fact, differences in backgrounds, in terms of

education and experience, as well as the genetics and the other elements that generate diversity, influence the individual attitude towards risks and the different tactics to face them. The international literature has paid an increasing attention towards the effects of the introduction of diversity in BoD on different types of risks inherent in the management of the firm. For example, the gender diversity shows direct and positive outcomes in various aspects, from both a practical point of view and a more strategic perspective. In fact, a strong presence of women in corporate boards increases meetings' attendance as well as reduces the risk of financial fraud occurrence. Moreover, since women are more diligent than men, a higher female presence in boards decreases the risk of unethical behaviours (Dawson 1997; Kennedy et al. 2014).

One of the most significant aspects investigated by previous studies (Jianakoplos and Bernasek 1998; Sapienza et al. 2009) concerns the overall firm risk reduction that has been demonstrated decreasing in case of women presence in corporate boards. This fact can be explained considering that women have many positive qualities like better judgement and evaluation of risk and decision-making and so they are seen as a positive element within a board also taking into account their monitoring role. In doing so, female directors seem to contribute in a more effective and efficient way to managerial decisions that generate in the long run higher financial and operating performances.

Particularly, taking into account a risk management approach, companies constantly face various kinds of risks, such as the operational risk, the credit risk, the investment risk, and the reputational risk. Being risk management fundamental for the firm survival and growth, the board has the duty to balance and ponder all risks that can derive from the strategies proposed and implemented. In fact, risk is considered one of the main causes of the 2009 financial crisis (Lenard et al. 2014).

The literature demonstrates that board diversity enables firms to decrease the riskiness of projects and plans thanks to differences in evaluation between members. For example, the gender socialization theory states that female and male members focus on different aspects. In fact, women grow up being caring, selfless, helpful, and more ethical than men that, instead, became more aggressive and task oriented. These differences lead males and females to different conclusions. Women result to be more risk adverse than men, especially on financial decisions. This is also caused by the fact that men are too much confident about themselves and their experiences and knowledge, leading them to rely only on

their risk evaluation and to take higher risks compared to women which are less self-confident and inclined to avoid extreme and dangerous decisions (Loukil and Yousfi 2016). Others, studies supporting these theories, affirm that women and men examine and stock information in a different way leading them to deliver different solutions to hard problems (Rhode and Packel 2012). Women, in fact, tend to analyse more information, also the information that does not support their hypothesis or solution, while men tend to pay attention just to information that is in line with their hypothesis or solution they want.

The variance of cash flow is another relevant aspect of firm's risk as it increases the default risk implying a higher cost of debt (Chen et al. 2016). Board diversity can actually decrease this kind of risk, especially if the diversity concerns the gender. Female directors, in fact, should reduce the R&D volatility and especially the default risks associated with these investments.

A recent study, conducted by Chen et al. (2019), shows that the board gender diversity in particular is positively associated with firm's financial risk. In the same study, it is also shown that the gender diversity in the board is negatively associated with tax avoidance, underlining that companies with diversified boards are more cautious about eventual reputation risks associated with aggressive tax strategies.

Thus, in sum, it seems that increasing diversity (and gender diversity in particular) allows firms to bear lower risks, due to the healthier leadership and to the personal attitude in terms of risks aversion, higher participation, and greater respect of ethical standards. In turn, this leads to a reduced performance volatility and a lover cost of debt.

4.6 Board Diversity, Firm's Profitability, and Value

In the previous paragraphs, the relationship between board diversity and firm's performance, in terms of corporate social performance, organization, innovation, and risk, has been analysed putting in evidence a positive relation with these variables. This paragraph switches the focus on the relation between corporate board diversity and firm's financial performance and value.

As already mentioned, there are a lot of indicators that can be used to measure profitability, ranging from accounting-based measures, such as ROE, ROA, and EBITDA, to market-based constructs, such as the

Tobin's Q. In the last decades, many scholars have measured how the financial performance is affected by board diversity, even though a problem of reverse causality may arise. In fact, defining the causality of this outcome is particularly challenging due to the endogenous nature of board composition (Hermalin and Weisbach 1988). The international literature has investigated over the years the diversity issues under several theoretical frameworks, paying particular attention towards the conceptual considerations arising from the resource dependence theory, the agency theory, the human capital theory, and the social psychology theory. As a consequence, no unique findings come up from researches. Thus, the various aspects of diversity can actually generate either a positive, a negative, or a neutral effect on the firm's financial performance.

However, the largest part of outcomes developed by academics and scholars sustains that, since the diversity in the boardroom increases the board's overall performance, also the financial performance of the firm can benefit from this diversity. Financial performance, in fact, measured with the aforementioned balance sheet indicators, represents the final result of the firm and it is influenced by all the factors taken into account above. For this reason, a substantial part of the literature sustains that firm's financial performance should be positively related to board diversity as well. For example, Cox and Blake (1991), as well as Robinson and Dechant (1997), provide a good summary of why board diversity can influence the firm's financial performance. According to these authors, the board diversity, viewed in terms of number of members having different education, background, gender, and nationality, brings a better understanding of the consumers' needs and requests which, in turn, can result in a higher market share and turnover. Moreover, since board diversity could be a source of greater innovation and creativity, in some industries these elements might lead the firm to achieve, maintain, or renovate the competitive advantage position in the market. Furthermore, coherently with the conceptual outcomes proposed by the resource dependence theory, board diversity can improve the decision-making process, making it more effective and efficient. Finally, diversity in the boardroom seems to be linked with the increase of the effectiveness of corporate leadership. In fact, heterogeneity in the top management team creates the conditions for a broader open mind way of thinking, enhancing the ability to analyse and understand the complexities of the external environment.

Focusing the concept of diversity in the BoDs on gender and ethnicity issues, Carter et al. (2003) analyse a sample of publicly traded Fortune

1000 firms, finding a statistically significant relationship between the presence of female and minorities in the boardroom and the firm value. Moreover, the study shows that female presence in boardrooms is positively related to minorities' presence in the board. Nevertheless, the authors looked at the reverse of the medal, discovering also that the presence of female directors or minorities in the board is negatively related to the presence of independent directors.

A more recent study, conducted by Bernile et al. (2018), shows that a greater board diversity (measured among the others with gender and ethnicity) is associated with a lower volatility and a better performance of the firm. Indeed, the authors highlight how the lower risk levels are mainly attributable to diversified boardrooms, since BoDs with a strong degree of diversity among their members usually adopt more determined and less risky financial decisions. Moreover, they also find that firms with a greater board diversity seem to be more likely to invest in research activities and development programmes, which recalls to the aforementioned link between innovation strategies and firm's performance. Thus, in sum, they find that, generally speaking, both the operating performance and the financial performance, measured with the asset valuation multiples, get higher when the board is diversified. Nevertheless, also in this case, the downside exists. In fact, Bernile et al. (2018) provide another relevant insight about board diversity: when there is a high need of flexibility asked to the firm, the diversity is significantly more costly. Thus, the benefits of diversity could not exceed the costs of it. As a consequence, the positive effect of board diversity on the firm performance is weaker when aggregate volatility and the need of flexibility are relevant.

In general, from all the studies conducted more or less recently by academics, we can observe that a great part of the literature agrees on the fact that diversity has a positive impact on the firm financial performance. Thus, we can conclude from these studies that having minorities is not only a social issue anymore, because as a matter of fact the empirical evidence has started to show worldwide that these minorities do actually bring benefits to the board in terms of effectiveness and performance.

Nevertheless, we should also consider that part of the literature that is providing different outcomes. For example, Carter et al. (2010), through a statistical analysis, support the theoretical position of no effect on the firm performance. Their study focuses on the gender and the ethnicity diversity and the authors explain their findings suggesting that these two aspects of diversity in boardrooms may be different under different

circumstances at different times, thus producing no effect at the end on the performance of the firm when several firms and time periods are considered, because the results could offset to produce no effect.

Within the several empirical studies conducted on board diversity, those that mainly refer to the agency theory as background framework suggest the existence of a link between the diversity in the boardroom and the firm performance, even though the nature of the link is still not clear (Adams and Ferreira 2009). According to Terjesen et al. (2009), the impact on the performance also depends on the type of diversity of the directors, as well as on their qualifications and, then, on how the minorities are then mixed with the other board members.

4.7 Diversity in Personal Attributes and Firm Performance

The review of the literature provided by previous paragraphs underlines how there is still no convergence in the results concerning the board diversity. One of the reasons of this evidence comes from the consideration that different aspects of diversity are combined differently in different studies. Thus, it seems particularly relevant to analyse how altogether they can impact on the firm performance. In order to set the ground for this analysis, it appears useful to investigate the various aspects of diversity given by the personal attribute of the director, in relation to the firm performance. These aspects refer mainly to all the demographic features and to educational background.

4.7.1 Gender Diversity

The gender diversity is undoubtedly the most discussed diversity issue since many years. Recently, it has started to be even more under the lens of practitioners and academics due to the increasing laws on the gender quotas arising worldwide. This increase is consistent with the recommendation from various national and international institutions worldwide. In the last decade, in fact, the topic of female underrepresentation on corporate boards has been on the European Commission's agenda. In order to support equality in terms of gender diversity in corporate boardrooms, the European Commission enacted directives addressed to European listed firms. Particularly, the main recommendation concern: (i) a 40% target for the less represented gender for non-executive board directors; (ii) the

claim of accepted, unequivocal, and objective criteria during the hiring process; (iii) the priority given to females in case of equality in terms of competences with the candidate of the opposite sex; (iv) consistent fines for firms that do not comply with the law. As a consequence, soft or voluntary quotas have been widely adopted recently as a tool to have more gender-balanced boards. Some other countries, instead, prefer to adopt the binding gender quota system, obliging firms to have the declared required amount of the less represented gender in their boards. In countries where the binding quotas have been introduced, such as Italy, France, Norway, and the Netherland, the number of female directors undeniably increased consistently, according to the requirements of the country-specific laws.

As previously mentioned, a large part of international literature confirms theories supporting the positive link between gender diversity in the boardroom and firm's performance. Undeniably, an increase of female directors in the boards brings an element of diversity to the decision-making process. Studies developed on US samples, where soft quotas were implemented to curb gender inequality, demonstrate a positive relationship between board gender diversity and firm performance (Campbell and Mínguez-Vera 2008; Carter et al. 2003).

Also in the European context, researches conducted in several countries show the same outcome. For example, in Germany and in Finland, where voluntary gender quota are in place, the outcome was tested (Joecks et al. 2013; Kotiranta et al. 2007). These studies demonstrate that firms with more female directors in their boards outperformed male-dominated firms. Other scholars provide evidence of the fact that board gender diversity impacts on the firm's value due to the improved monitoring process that is achieved. It seems that firms with female members in their boards do have less asymmetric information between insiders and outsiders, experiencing positive and significant returns at final effect (Nygaard 2011).

Some other studies, on the contrary, did not find any relationship between gender diversity and firm performance (e.g. Rose 2007; Miller and Del Carmen Triana 2009). Finally, some other researches find a negative relationship between the two factors. Adams and Ferreira (2009) assume that these opposing outcomes may be due to several factors, such as the country-specific features, the environment in which the firms operate, the type of firm, or also the industry in which the firm acts.

Recent studies, conducted in countries where binding gender quota is implemented, also show contrasting results. It is relevant to analyse the effect of the gender diversity in these other realities considering that the imposition of gender quotas, especially in countries characterized by a strong gender unbalance, such as Italy and Belgium, has been a considerable change, not even asked by the firms themselves. Furthermore, it has to be taken into account the ways the laws were implemented in the different countries because each situation presents different characteristics in terms of amount of required quota, graduality of implementation, time given to be compliant with the law, and penalties in case of non-compliance. In one of the earliest studies on the binding-quota implementation (Matsa and Miller 2013), on a sample of Norwegian firms, a decline in firm's operating profits was observed just after the adoption of the mandatory gender quotas. Nevertheless, other researches show that not all countries imposing the binding quotas are performing negative outcomes. For example, Ferrari et al. (2016) as well as Magnanelli et al. (2020), studying the Italian context, find that the mandatory gender quota law, introduced in 2012, actually increased the firm's performance. These results are explained by the authors considering that female directors increase the average education level of the board and lower the average age, confirming the theories sustained that more diversified boards in terms of gender, education, and age impact positively on the performance. These changes, in fact, although mandatory by law, give the firms the opportunity to "restructure" the selection system, improving its outcomes. For example, the old Italian system for selecting board directors was usually based not on meritocracy, as pointed out also by Bianco et al. (2015), but on networking relations. The authors also highlight that these changes in board selection process were caught by the market as a positive attitude and thus, as a consequence, the firm's stock market performance improved.

Nonetheless, these results are at odds with the ones obtained by Ahern and Dittmar (2012) on a Norwegian sample, after the introduction of the binding quotas. In fact, in Norway, just after the unexpected announcement of the new law, firms, especially those without female members in their boards, experienced negative stock market returns, showing a drop in terms of Tobin's Q. These diverse results can be attributed to the different corporate governance systems and country-specific legislation of the two countries. Analysing the Norwegian scenario, in fact, before the introduction of the mandatory gender quota law, firm's boardrooms were

already characterized by more qualified and younger members compared to Italian firms. Moreover, the required amount of the less represented gender imposed immediately by the Norwegian legislator is 40%, implying a considerable restructuring in a very short time. In Italy, the legislator imposed a mandatory quota of 33% to be achieved by firms within a transition period of three board terms, which is more or less 9 years. Thus, in this case, a restructuring is still needed but in a longer period of time, not implying a completely and immediately different board structure and thus not disrupting the board's operations.

4.7.2 Critical Mass, Tokenism, and Female Presence in Boards

The road to reduce the gender bias is still very long and torturous. In fact, besides the countries in which binding gender quotas laws were implemented, in many other nations the gender diversity in board is still an issue. In some parts of the world, in fact, female directors are around 10%; thus, there is still a strong gap. The problem with the actual number of women in the boards relies on the real impact that their presence can have on the firm. In fact, according to the so-called critical mass theory (Kanter 1977), a minority starts to be relevant in terms of impact only when a critical mass is achieved. According to Kanter's researches, in the case of a male-dominated group, the critical mass of women is around between 20 and 40%.

In case the amount of the minority, women when speaking about gender diversity in boardrooms, is less than 30%, the individuals belonging to the minority would just be seen a "token" and the board would remain the usual "old boys club" characterized by male power domination. Tokens are the individuals of the group's minority that are not treated as individuals but just as "representatives" of their category. Tokens are basically ignored and not considered by the other members of the group. Another, opposite, probable effect in case there is only one woman in the board is hyper-visibility. In this case, the female director can lose individuality and will be seen as the representative of the whole gender category. If this occurs, even though females are actually on corporate boards, no true gender balance is actually achieved. Empirical studies confirm that when only one or two women are in the boardroom—given the fact that the average size of a board is 8 to 10—they are not able to make a difference in the decision-making process (Torchia et al. 2010, 2011). The balanced group is achieved when gender difference is less

influential. Thus, the takeaway that emerges from empirical researches is that it seems necessary to achieve a critical mass or a threshold of women within the boardroom to actually exploit the potential of having female directors and to assure a real gender balance. In fact, as Karen J. Curtin, a former executive vice president of the Bank of America, points out "there is real debate between those who think we should be more diverse because it is the right thing to do and those who think we should be more diverse because it actually enhances shareholder value. Unless we get the second point across and people believe it, we're only going to have tokenism" (Brancato and Patterson 1999).

4.7.3 Age Diversity

In Europe, firms present an average age for directors around 58, but we have actually to distinguish among the various countries because there is a lot of variety among them. For example, in Italy and in Spain, directors are usually much older, with some of them over their 70s, while in Poland, most of the directors are aged 50 or even under. The key roles, such as the Chairman or the Senior Independent Director, are usually played by older directors that are on average aged around 62. Ultimately, non-executive directors, executive directors, and CEOs tend to be in their mid-50s.

According to many scholars, having young directors provides new strategies, ideas, and creativity into the decision-making process of the board (Cheng et al. 2010; Darmadi 2011). This is due to the fact that younger members usually have developed a deeper knowledge of new business techniques and are also more inclined and familiar about innovations and digital. Furthermore, young members are more likely to have network links with other young entrepreneurs and financiers; thus, they can actually provide new solutions for the financial needs of the firm, while the older members can better assure linkages with more traditional institutions. Thus, age diversity can enhance the competences and the available resources for a firm, making the firm achieve the competitive advantage (Peterson and Spiker 2005; Avery et al. 2007).

Younger directors tend to be less risk averse than older directors, and the empirical evidence shows that firms with younger managers perform higher (Hambrick and Mason 1984; Herrmann and Datta 2005). Younger directors, in fact, also tend to be more flexible, have a higher educational level, and usually show more energy. When all these factors take place, the age diversity could impact positively on the firm

performance enhancing the creativity and the problem-solving ability of the board.

However, if younger directors represent a minority, it is possible that they are isolated in the group and at the end only the majority, thus the older members, actually decide. In other words, they would be treated as tokens, as suggested by the aforementioned critical mass theory. This happens when old directors see the younger directors as not enough skilled and qualified for the position they hold, and as a consequence, they ignore their ideas and suggestions, isolating them.

But how can this factor impact the firm's performance? In other words, we need to question whether the innovative perspectives and ideas brought by younger managers do bring the firm to better outcomes or not. There are still a scarce number of researches about age diversity in the board and its effects on the firm. Furthermore, there are no convergent results. The most investigated relation about age diversity in the board is the one with the firm performance. Some scholars find a positive relation (Kilduff et al. 2000; Ararat et al. 2010), while others do not find any significant outcomes (Randøy et al. 2006; Eklund et al. 2009).

4.7.4 Nationality Diversity

Corporate boards worldwide are becoming more and more international in terms of composition due to the globalization effects. The number of foreign directors in boardrooms was around 23% in 2009 and it boosted up to around 30% in 2014. The question that arises is if and how nationality diversity can impact the performance of the firm.

The human and social capital theory helps us to understand how nationality diversity can have a positive or negative effect on the board and firm performance. When the nationality diversity increases in a board, a more diversified social and human capital is reached. Thus, this diversity will enlarge the social capital of the board, and as a consequence, it can positively impact on the performance of the board increasing the human capital because people coming from different countries can present different human capital and so enhance the human capital in the boardroom (Nielsen and Nielsen 2013). The idea behind this perspective is that nationality diversity enhances the access to resources, the relationship with the employees, as well as with the financial institutions, and finally, it betters the reputation.

However, the outcomes coming from existing literature present mixed results. Rose (2007), as well as Darmadi (2011), does not find any significant relation between nationality diversity on boards and firm performance when it is measured by Tobin's Q, while other scholars do find a positive impact of nationality diversity on firm performance, still measured through the Tobin's Q (i.e. Oxelheim and Randøy 2003).

These different results can be explained by a specific fact: the integration among minorities. In fact, the possibility that nationality diversity increases the performance depends on it. As stated by the social identity theory (Tajfel 1982), individuals tend to categorize themselves into a social category, according to some demographic characteristics like gender, age, or nationality. If the categorization process occurs, there is no cohesion within the group anymore. Subgroup will be formed and exchanges of information among them will be rare and difficult.

Moreover, as stated by some scholars (Lehman and DuFrene 2008), nationality diversity implies a cultural diversity within the board, which may cause cross-cultural communication problems and interpersonal conflicts.

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CHAPTER 5

Empirical Analysis on Board Diversity

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Abstract This chapter develops the empirical analysis with the final aim to support the new conceptual model proposed. Specifically, to construct the model, we analyse the various features of diversity (namely age, tenure, gender, nationality, level of education, educational background, directorship experience, role, independence, remuneration) and, for each diversity aspect, an index of diversity has been created. Since each diversity aspect may be categorical or quantitative, different measures of diversity have been considered. Precisely, for categorical variables we use the (relative) entropy, while for quantitative variables, we use the standard deviation. The impact of these variables on the firm performance is tested through both market-based and accounting-based measures. In order to catch the long-term effects, the analysis has been conducted over a 9-year period, from 2010 to 2018. After providing descriptive statistics, correlations, and results, the chapter ends with some conclusions about the further developments to guide future research for scholars and academics as well as with some guidelines for practitioners interested in studying the good practices and the effectiveness of the board seen as a corporate governance mechanism.

Keywords Firm performance · Board diversity · Diversity indexes

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5.1 Diversity in Boardrooms and Firm Performance: Which Are the Most Impacting Diversity Dimensions?

Research on diversity in boardrooms has progressed in a substantial way especially over the last two decades. Despite the proliferation of studies, two main issues arise from the extant literature. First, some diversity dimensions are analysed more than others. As mentioned in the previous chapters, the most investigated diversity dimension is the gender one, due to the increasing spread of new regulations and recommendations coming from the policymakers worldwide. The reason underlying the centrality of this dimension in the debate about diversity in boardrooms relies on the fact that there is a matter of equal opportunity issue, that nowadays has become much more relevant than in the past. Recently, other dimensions of diversity have started to be studied, but they call for more investigations.

The second critical issue in reviewing extant literature refers to the lack of unique findings achieved by worldwide empirical studies, as already described in Chapter 3. The explanation of this heterogeneity in the outcomes can be attributed to several aspects, mainly ascribable to the samples used and the models developed to conduct the empirical analyses.

Above of all, it has to be considered that the board is the main governing body of the firm and it is characterized by a multitude of features because it is composed by several people. Thus, a first point of weakness, typical of the majority of previous researches, relies on the fact that the diversity characteristics were not considered all together, at the same time. It is intuitive that considering the effect of single variables leads to some results that could be substantially different from the ones coming from a more integrated analysis, able to consider the variables all at once. In other words, if variables are studied separately, adopting a stand-alone analysis, results will be different from the ones that come out when the same variables are studied all together.

Furthermore, the empirical analyses usually refer to samples of firms acting in a specific geographical area. Nevertheless, countries differ for numerous aspects, such as culture, history, and legal and financial environment. This consideration limits the generalization of the obtained outcomes.

Finally, a last reason that may conduct to different findings relies on the measurement of the firm's performance. Several measures can be

used to test the financial performance of the firm. In fact, the review of the international literature underlines how some researches about board diversity focus only on the accounting-based measures (e.g. Julizaerma and Sori 2012; Boadi and Osarfo 2019; Solakoglu 2013; Smith et al. 2006), while others show a preference for the market-based measures (Ahern and Dittmar 2012; Campbell and Mínguez-Vera 2008; Charles et al. 2018; Rose 2007). Of course, comments on the outcomes and their interpretation vary according to the dependent variables used in the model of analysis.

In sum, despite the several attempts to empirically capture the impact of board features on the firm's performance, the debate remains open, leaving breeding ground for further researches.

Since boardrooms are characterized by heterogeneous aspects also depending on the firm's conditions, the country in which it operates, the ethic policies adopted by the firm, and other aspects that vary from firm to firm (such as: size, leverage, and industry.), this work contributes to the literature on board diversity adopting a wider lens of analysis. Specifically, this work proposes to explore the diversity dimensions considering them, in a first analysis, one by one, according to the traditional methodology usually used by many international scholars, and, in a second analysis, all together. The adoption of this double approach lets us to capture and compare the effects of all the dimensions of diversity on the firm's financial performance both singularly and jointly. Additionally, in order to support the generalizations of the results, the analysis is conducted using a sample of firms operating in various countries and industries.

5.2 Data and Methodology

Aiming at empirically testing the impact of the different diversity dimensions in boardrooms on the performance of the firm, the data set was constructed through an ad hoc hand-collection activity. In the following paragraph, the data collection and the data mining processes are explained in detail.

5.2.1 Sample, Data Collection, and Data Mining

The construction of the sample has been conducted through a two-step process: the first one (firm-level) aimed at identifying the sample units, the firms, of the empirical analysis; the second one (directors-level) was

focused on the identification of the members of the board of each firm and on the collection of data about their characteristics. In order to gather data on the listed companies, three main databases have been consulted, namely: (1) Orbis—Bureau van Dijk; (2) Datastream—Thomson Reuters, and (3) Osiris—Bureau van Dijk.

To perform the first step of the process, the Orbis—Bureau van Dijk database has been used to select the initial sample of listed companies, considering that it provides data on over 300 million of firms, operating worldwide. From an operational point of view, the geographical area on which the analysis would have been conducted was selected. The EU28 area was considered, which refers to 28 countries belonging to the European Union until 2018, therefore before the Brexit. Then, from this initial and very broad sample, other selection criteria were applied. Firstly, only firms with at least 50 employees that were listed and active were selected. Then, the study filtered the sample taking into consideration the accounting principles used and considering only firms adopting the IAS/IFRS accounting principles in order to enable the comparison among the firms' data within the sample. After that, firms with a market capitalization lower than 10 million Euros were excluded. Thus, in other words, only medium and large firms have been maintained in the sample. In this way, the study created a sample with firms that are enough similar in terms of dimension to enable the comparison process. For similar reasons, firms belonging to the financial industry were excluded, due to the differences they present in terms of accounting policies, laws, organizations, and business strategies compared to the other industries. Finally, only firms adopting the corporation as legal form and presenting annual reports within the considered period (2010–2018) were selected. In Table 5.1, the selection criteria adopted to form the sample are shown. The final sample is composed by 209 firms. As final outcome, the data set is organized as unbalanced panel.

The data collection process consisted of a series of steps aimed at gathering both qualitative and quantitative information for all the firms. Specifically, the financial data were taken from Datastream—Thomson Reuters, while the more qualitative information about the ownership structure and the governance of each firm, the company operation field (industry) and the listing year were collected from Orbis—Bureau van Dijk, which is one of the most powerful comparable data resource on private companies. Eventual missing data were collected from the annual reports of each company available on their websites.

Table 5.1 Sample selection criteria

Filter	*Selected option*	*N° of firms*
Geographical area/Country/Region	European Union (EU28)	78,924,544
Number of employees	Min = 50	365,409
Listed/non-listed firms	Listed firms	4409
Status	Active firms	4389
Accounting principles	IFRS	3850
Market capitalization (mln EUR)	Min = 10	3375
Type of firm	Corporation	3016
Years with available annual reports	2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018	209

As far as the second step of the sample construction is concerned, data collection refers to the individual characteristics of each board members of each firm of the sample. Specifically, these data involve the following director features: name, gender, age, nationality, level of education, study background, directorship experience, tenure in the firm as director, remuneration (fixed, variable, and benefits) and role within the board (executive or non-executive, independent or not). To collect all this information, several sources were consulted. Besides the Osiris—Bureau van Dijk database, the annual reports of the companies, the Bloomberg and MarketScreener Databases, and LinkedIn website were used.

Once the data collection was completed, a data mining activity started in order to analyse the data through the STATA software. The final output is represented by two data sets: the first one acts at firm-level and the other one refers at director-level. The combined used of these two databases allowed us to implement the econometric models proposed to study the relations among variables.

5.2.2 Variables

Dependent Variables

Three dependent variables were used to perform the statistical analysis: (1) the Tobin's Q, (2) the ROE, (3) the ROA. Each of these variables is explained next.

Tobin's Q. The *Tobin's Q* variable was utilized as a market-based measure to capture the firm's performance. According to existing literature, in fact, the Tobin's Q is the most used market-based measure because it is a proxy of the performance of the firm with a "forward looking" perspective reflecting the expectations of the market about future profits. Thus, several scholars, investigating on the board characteristics and the firm's performance, have already adopted it (e.g. Carter et al. 2003; Coles et al. 2008; Ahern and Dittmar 2012; Adams and Ferreira 2009; Reguera-Alvarado et al. 2017). The positive aspect of the use of the Tobin's Q is that, even though several approaches have been proposed for its calculation, the different methods tend to produce very similar outcomes (Chung and Pruitt 1994; Perfect and Wiles 1994), allowing direct comparison among different contributes. In this study, following the approach proposed by Adams and Ferreira (2009), the *Tobin's Q* was calculated as the ratio between the firm's market value and its book value, where the firm's market value is given by the book value of assets minus the book value of equity plus the market value of equity.

ROE and *ROA*. Despite the undoubted advantages provided by the use of the Tobin's Q, it is relevant to point out that, for the purposes of this study, it is important to test the relationships among variables with several measures of firm's performance. This approach lets to put in evidence eventual differences in the relationships which might depend on the type of the dependent variable used. Thus, aligned with some scholars who adopted the *ROE* and/or the *ROA* in their studies about the performance and the board diversity (e.g. Boadi and Osarfo 2019; Al-Matari et al. 2014; Rampling 2011; Erhardt et al. 2003), also these two indexes were tested as dependent variables. Specifically, the *ROE*, calculated as the ratio between the net income and the common equity of the firm, appears useful to measure the management's ability to generate income from the equity available to it. Moreover, since it impacts on stock prices, it represents a good indicator of firm's financial performance. Similarly, the *ROA*, calculated as the ratio between the EBIT over the total assets of the firm, captures the percentage of how profitable company's assets are in generating operating profit.

Independent Variables

The main independent variables are represented by diversity dimensions, with the aim of capturing intra-firm heterogeneity. Specifically, the following variables have been considered: age, tenure, gender, nationality,

educational level, educational background, directorship experience, role in the board, independence, remuneration (divided into its three components: fixed, variable, and benefits). These variables are of different nature, i.e. categorical or quantitative, and, accordingly, different measures of diversity should be considered. Thus, for each variable a diversity index was constructed. The most widely used indicator to measure diversity, i.e. heterogeneity, for categorical variable is the (relative) entropy; while the standard deviation is commonly used for quantitative variables (Bernile et al. 2018; Harjoto et al. 2015).

The *age diversity* index focuses on the directors' age and measures the variability in the age of the directors sitting on the board. The *tenure diversity* index refers to the period spent in the firm serving as director and measures the variability in the number of months the director spent in the company. The *gender diversity* index focuses on the gender of the director and measures the entropy of the gender of the directors at the firm-specific level. The *nationality diversity* index is created from the information about the geographical area in which the director was born, considering three major regions (Europe, North America, and other countries). The *educational level diversity* index is constructed considering the highest educational qualification directors achieved, considering four categories: high school diploma, bachelor degree, master degree, and Ph.D. The *educational background diversity* index focuses on the type of studies the directors did. The variable referred to the educational background presents the following options: law, engineering, management, philosophy, political science, economics, classical studies, and other. The *directorship experience diversity* index is constructed considering the number of current and previous directorships the members of the board have, beside the one in the analysed firm. The *executive diversity* index relates to the role in the board the director has, and it is based on the executive or non-executive position. The *independence diversity* index refers to the status hold by the director in the board, distinguishing between independent and non-independent directors. The remuneration variable generated three different indexes of diversity, because the various components of the remuneration were analysed separately. Thus, specifically, the *fixed salary diversity* index, the *variable salary diversity* index, and the *fringe benefits diversity* index were constructed.

Control Variables

In line with existing literature (e.g. Campbell and Mínguez-Vera 2008), some control variables to monitor some firm-specific characteristics that may impact on the firm's performance were included in the estimation models. Specifically, the *number of board meetings* organized per year, the *leverage ratio* given by long-term debts over common equity, the *firm size* measured with the logarithm of the total assets, the *listing year*, and the *industry* using 26 dummy variables, reflecting the 26 industries included in the sample, adopting the Global Industry Classification Standard (GICS).[1]

The descriptive statistics of all the variables are in Tables 5.2 and 5.3. Specifically, Table 5.2 shows the mean, the standard deviation, the median, the minimum and the maximum values for each variable, while Table 5.3 reports the correlation matrix.

5.2.3 Data Analysis

In order to test the impact of the 12 diversity dimensions on the firm's performance, different empirical models were run. The data have a longitudinal hierarchical structure, i.e. firms belonging to different industries are observed over a varying number of times, and the adopted statistical methods properly reflect the data structure. In doing so, omitted or unobserved variables are controlled. In fact, the issue related to omitted and/or unobserved variable usually arises in research concerning the board characteristics and composition (Adams et al. 2010; Adams and Ferreira 2009; Charles et al. 2018).

Firstly, after testing the baseline model (Model 1), which includes the control variables only, a single diversity indexes analysis was performed (Model 2). Indeed, each diversity dimension is tested, one by one, to measure the impact on the firm's performance. This is achieved by using multilevel random effects models (Goldstein 2003), as they provide a flexible strategy to account for complex correlation structures in the analysis of longitudinal hierarchical data (see, e.g., Skrondal and Rabe-Hesketh 2004). The firm-specific random effect captures the dependence of observations belonging to the same firm, while the industry-specific random effect captures the clustering effect of firms operating in the same industry.

To address time dependence, an autoregressive model has been further considered (Model 3), where the lagged performance is introduced in the

Table 5.2 Descriptive statistics

	Observations	*Mean*	*Standard deviation*	*Median*	*Min*	*Max*
Tobin's Q	1350	1.21	1.19	0.83	0.03	9.23
ROE	1350	11.61	19.79	11.81	-84.76	99.97
ROA	1350	5.12	10.26	5.06	-98.31	79.49
Age diversity	1284	0.94	0.32	0.89	0.00	1.91
Tenure diversity	1350	0.72	0.50	0.56	0.00	2.58
Gender diversity	1350	0.45	0.37	0.59	0.00	1.00
Nationality diversity	1298	0.19	0.34	0.00	0.00	1.56
Educational level diversity	1298	0.83	0.46	0.91	0.00	1.85
Educational background diversity	1298	1.27	0.57	1.33	0.00	2.52
Directorship experience diversity	1239	0.77	0.44	0.67	0.00	2.39
Executive diversity	1350	0.87	0.16	0.92	0.00	1.00
Independence diversity	1350	0.83	0.23	0.92	0.00	1.00
Fixed salary diversity	1252	0.61	0.54	0.54	0.00	2.58
Variable salary diversity	1249	0.39	0.66	0.06	0.00	4.28
Fringe benefits diversity	1202	0.38	0.80	0.02	0.00	4.70
Number of board meetings	1350	7.73	2.90	8.00	1.00	25.00
Leverage ratio	1350	1.69	2.77	1.32	0	15.70
Size	1350	3,581,583	13,419,164	321,457	2363	138,915,000
Listing year	1350	1996	14,04	2000	1950	2017

Table 5.3 Correlation matrix

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*	*18*	*19*
(1) Tobin's Q	1																		
(2) ROE	0.24*	1																	
(3) ROA	0.28*	0.78*	1																
(4) Age diversity	−0.08	−0.1*	−0.01	1															
(5) Tenure diversity	0.15*	0.08*	0.12*	0.13*	1														
(6) Gender diversity	−0.08	0.1*	0.11*	-0.09*	0.07*	1													
(7) Nationality diversity	0.13*	0.03	−0.05*	−0.12*	−0.09*	0.14*	1												
(8) Educational level diversity	−0.13*	−0.06	0.03	−0.09	−0.05*	0.22*	0.1*	1											
(9) Educational background diversity	−0.12*	−0.03	−0.03	−0.06	−0.01	0.28*	0.28*	0.26*	1										
(10) Directorship experience diversity	−0.01*	−0.05*	0.05	0.26*	0.02*	0.02	−0.15*	0.03*	−0.04*	1									
(11) Executive diversity	0.26*	0.12	0.13	0.04	0.04	−0.25*	−0.15*	−0.35*	−0.32*	−0.04	1								
(12) Independence diversity	0.11	−0.01	−0.01	0.09	0.13*	0	0.03	−0.15*	−0.1	0.05*	0.27*	1							
(13) Fixed salary diversity	−0.05*	0.06	0.05*	−0.05*	0	0.21*	0.23*	0.44*	0.38*	0	−0.29*	−0.12*	1						

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
(14)	Variable salary diversity	0.01	0.21*	0.17*	−0.12*	−0.04	0.22*	0.24*	0.37*	0.33*	−0.09	−0.24*	−0.17*	0.66*	1					
(15)	Fringe benefits diversity	−0.01*	0.15*	0.09	−0.19*	−0.08*	0.18*	0.24*	0.23*	0.17*	−0.23*	−0.11*	−0.08*	0.57*	0.47*	1				
(16)	Number of board meetings	0.04	0	−0.05	−0.24*	−0.01*	−0.01	0.04	−0.06	0.01*	−0.14*	0.01	0.05	−0.03	0.03	0.09*	1			
(17)	Leverage ratio	−0.08*	0.01	−0.04	−0.04	0.07	0.13*	−0.02	0.02*	0.06*	−0.03	−0.08	−0.03	−0.03	−0.04	0.03	0.09*	1		
(18)	Size	−0.14*	0.02	0	−0.11*	−0.06*	0.2*	0.32*	0.27*	0.31*	−0.1*	−0.29*	−0.17*	0.43*	0.41*	0.26*	0.02	0.01	1	
(19)	Listing year	0.03	0.12*	0.19*	−0.04	0.26*	0.09	0.18*	−0.08	−0.07	−0.12*	0.06	0.03	0.02	0.08*	0.16*	−0.12*	−0.06*	−0.03	1

*$p < 0.05$

linear predictor. This approach is justified by the willingness to capture the effects of those board decisions that do impact not immediately but after a while. Nevertheless, this approach may lead to endogeneity bias due to the well-known initial conditions problem (Aitkin and Alfò 2003; Wooldridge 2005). In other words, the so-called naïve estimator is inconsistent because the endogenous initial response is treated as exogenous by assuming that the conditional density of the given random intercept is the same as the marginal density, giving rise to the initial conditions problem. The coefficients of covariates, that correlate with the lagged response given the other covariates, will be underestimated (in absolute value). To solve this issue, an approximated approach is considered by including the value of the performance at the baseline as a further independent variable. After that, the diversity dimensions have been considered all together, in a joint diversity indexes model (Model 4), fitting a multivariable multilevel random effect regression model. Also in this case, to address time dependence, an autoregressive model has been further considered (Model 5), where the lagged performance is introduced in the linear predictor.

Model parameters are obtained in a maximum likelihood framework, using the *lmer()* function of the *lme4* package (Bates et al. 2015) of the R software.

The fitted models have the following form:

$$y_{itj} = \beta_0 + \sum_{p=1}^{P} \beta_p x_{it} + b_i + u_j + \varepsilon_{itj} \tag{5.1}$$

Where y_{itj} is the dependent variable for firm i clustered in industry j at time t, x_{it} is the vector collecting independent and control variables, b_i and u_j are firm- and industry-specific random effects, respectively, and the latter term is a zero-mean error term.

5.3 Descriptive Statistics of Diversity Variables

Board diversity can be measured with respect to several dimensions/variables. It mainly refers to differences among board members with respect to specific individual characteristics. As previously mentioned, these features can be categorical or quantitative and accordingly, to construct the related diversity indexes, the (relative) entropy was used for categorical variables, and the standard deviation was used for quantitative variables. In the following, the relative entropy and the standard

deviations for several variables at the firm-level are described, as well as their distribution among firms and over time. Graphical representations are used to better describe the data. The boxplots, which summarize all the main information of a distribution (the minimum, maximum, first, second, and third quartile), and the simple barplots, which illustrate the distribution over time, are shown.

Gender Diversity. The *gender diversity* index shows how the gender composition of the board changed over time in the analysed sample. Only two values are possible and observed: female and male. Figure 5.1 shows that in 2010 the diversity was very low, equal to zero for half of the firms of the sample, meaning that there was no diversity at all. In other words, the boards were composed only by male members in the largest part of the investigated companies. In the last years of the analysis, instead, the gender diversity increased over time, from 0.36 in 2011 to 0.56 in 2018 on average, with a median rather stable in the last years (around 0.65). A much lower mean than the median indicates that there are still companies with strong male-dominating boards, but at the same time there are other companies with a good gender mix. Starting from 2011, the diversity in terms of gender rapidly increases. This fact can be attributed to the new mandatory gender quota laws and OECD recommendations. This

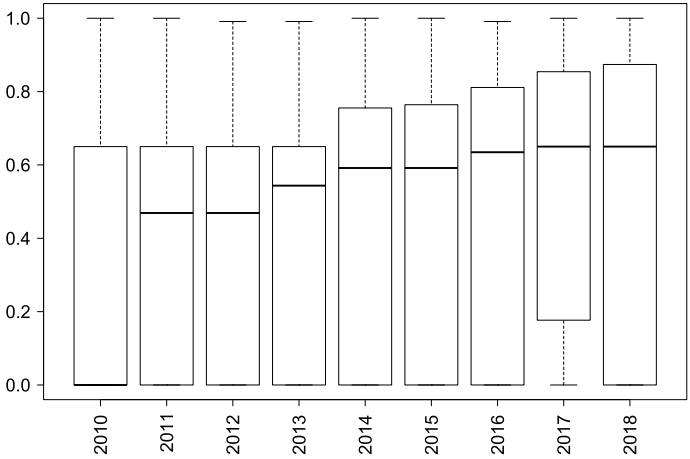

Fig. 5.1 Gender diversity index boxplot

evidence appears also in Fig. 5.2, where, looking at the trend of the variable over time, the increase of women occurring year by year appears. Looking specifically at the percentages, in 2010 female directors were 9.85%, after 4 years, in 2014, the percentage increased up to 14.40%, and in the last year of the analysis, in 2018, it raised up to 21.17%.

Educational Background Diversity. The *educational background diversity* index measures the level of mix in terms of educational background among the directors. The index is constructed considering 8 different backgrounds: law, engineering, management, philosophy, political science, economics, classical studies, and other. As shown in Fig. 5.3, this aspect of diversity is rather stable over time, with both mean and median around 0.4 over the analysed period. Thus, overall there is not much diversity in the educational background. This is not surprising as specific capabilities are often requested in managing firms, and these are obtained only with specific backgrounds (primarily economics and management). This result is also confirmed by the composition of the boards (Fig. 5.4), which does not report any significant change from one year to another one, remaining almost the same over the 8 years of observation. The professional background that are most common among board

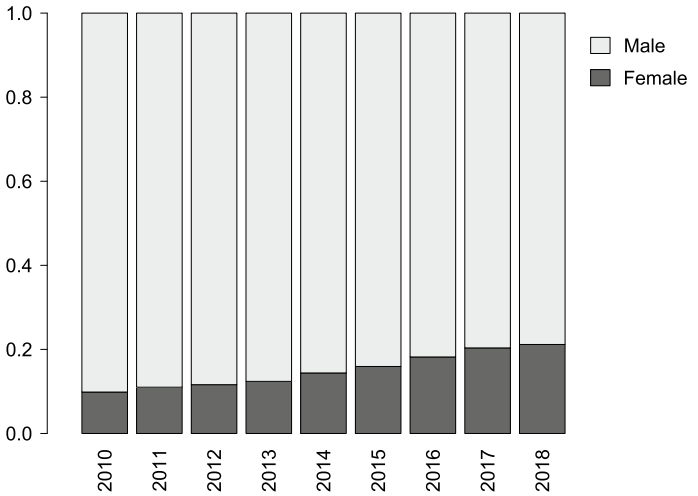

Fig. 5.2 Gender diversity index breakdown over time

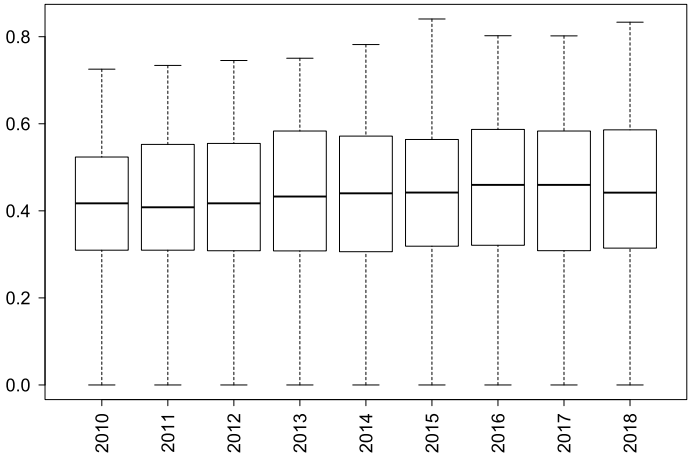

Fig. 5.3 Educational background diversity index boxplot

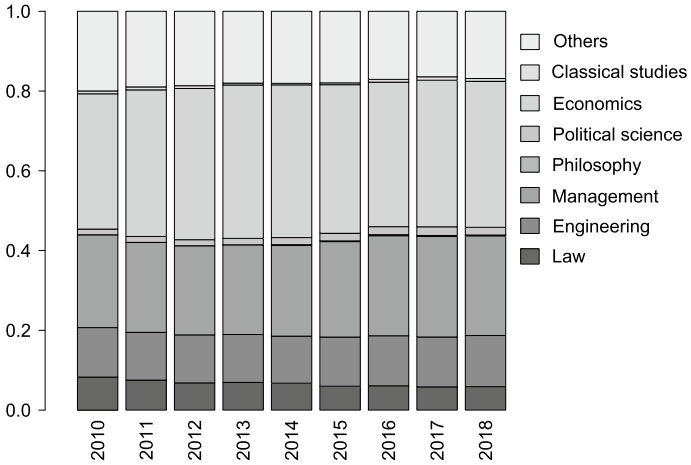

Fig. 5.4 Educational background diversity index breakdown over time

members are economics (ranging from 33.9 to 38.5) and management (ranging from 22.4 to 25.2).

Educational Level Diversity. The *educational level diversity* index measures the level of mix in terms of level of education among board members. The index is constructed on 4 categories: high school diploma, bachelor degree, master degree, and Ph.D. From Fig. 5.5, it can be observed that the *educational level diversity* index does not present relevant changes over time, considering that the median is around 0.45 during the whole period of analysis. The overall diversity is very low, since some categories are predominant in the board members characteristics (i.e. bachelor degree). It is rather interesting to notice that in some firms there is no diversity at all as far as the level of education is concerned, with a diversity index equal to zero. In other words, in those firms all members of the board have the same level of education. As reported in Fig. 5.6, the composition of the board does not change significantly over time and this is explaining also the no change in the diversity index. The ranking of the achieved educational qualifications is the following: the largest part of the board members have the bachelor degree (the value ranges from a minimum of 62.7% in 2011 to a maximum of 64.4% in 2012), then the master degree (the value ranges from a minimum of 21.8% in 2010 to a maximum of 24.9% in 2015), after that the Ph.D. (the value ranges from

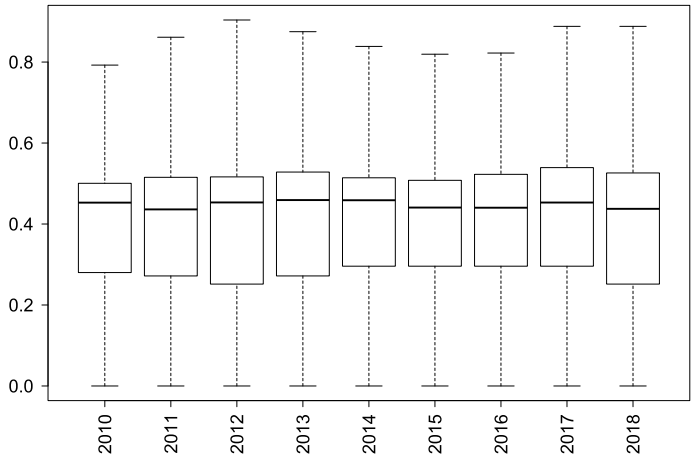

Fig. 5.5 Educational level diversity index boxplot

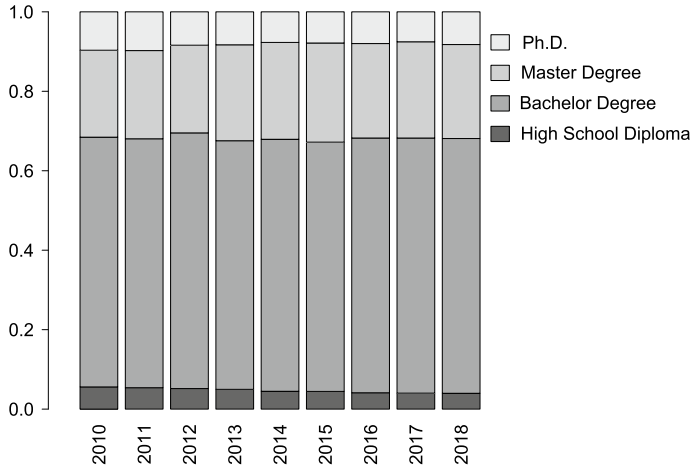

Fig. 5.6 Educational level diversity index breakdown over time

a minimum of 7.5% in 2017 to a maximum of 9.8% in 2011), and only a few have the high school diploma level of education (the value ranges from a minimum of 4% in both 2010 and 2011 to a maximum of 5.6% in 2010).

Tenure Diversity. The *tenure diversity* index is constructed considering the tenure of the different members, expressed in number of months since they sit on the board of the firm. It is a quantitative variable. The boxplot (Fig. 5.7) shows that its mean is not changing a lot over the considered period, while the median of the diversity index is slightly increasing from 2010 to 2018. Moreover, it is interesting to see that some of the firms present a diversity index equal to zero. In other words, it means that for those firms all the board members are sitting on the board since the same amount of time. Looking at the tenure trend drawn in Fig. 5.8, it can be observed that both the mean and the median are decreasing over time, indicating that in 2010 there were a lot of members in the corporate boards that were sitting in them since many years. In 2010, the mean is 131.76 months, which is equal to more than 11 years, while in 2018 the mean is 94.95 months, which is equal to almost 8 years. Looking at the median, in 2010 it was 120, corresponding to 10 years, while in 2018 it is equal to 72, i.e. 6 years, thus the majority of the companies has renewed its board with new directors. Furthermore, the median

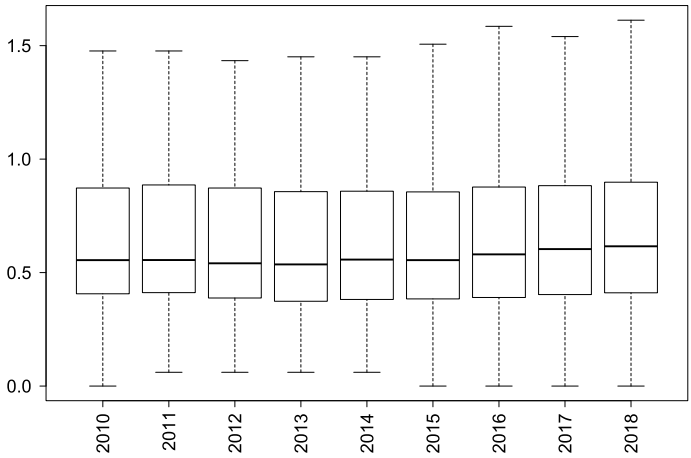

Fig. 5.7 Tenure diversity index boxplot

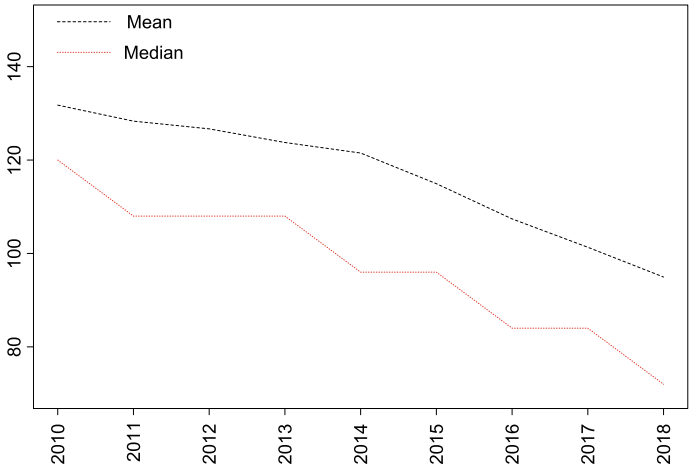

Fig. 5.8 Tenure diversity index over time

is always below the mean line, thus the distribution is asymmetric. The median, in fact, gives a better picture of the tenure situation, because when the distribution is asymmetric the mean is influenced and affected

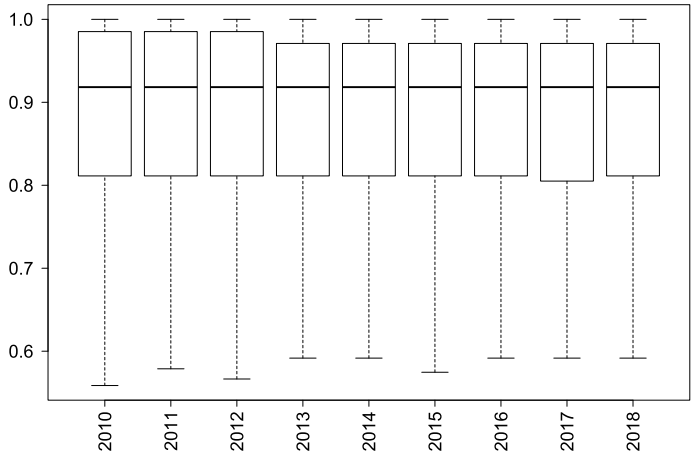

Fig. 5.9 Executive diversity index boxplot

by the presence of some elements having very high (or low) values. In this case, the presence of directors with very long tenure is driving the mean value bringing it towards their very high values.

Executive Diversity. The *executive diversity* index is constructed focusing on the executive or non-executive role of the directors within the board. As shown in Fig. 5.9, the *executive diversity* index is basically constant over the analysed period. The median of the index is quite high, around 0.92 during all the years, meaning that most of the companies present a good mix of executive and non-executive members. Still looking at the boxplot, it can be observed that the interquartile range is rather small. At last, some of the companies reach the maximum, equal to 1, indicating the highest achievable diversity, i.e. the same number of executive and non-executive members. Looking at Fig. 5.10, which expresses the trend of the executive member variable over time in terms of composition, it is evident that the proportion of non-executive is slightly increasing over time (for 64–67%), probably due to the higher requirements and standards imposed by the different countries and also due to the higher independence of the board asked by advocacy groups and investors.

Independence Diversity. The *independence diversity* index is constructed considering the independent or non-independent status of

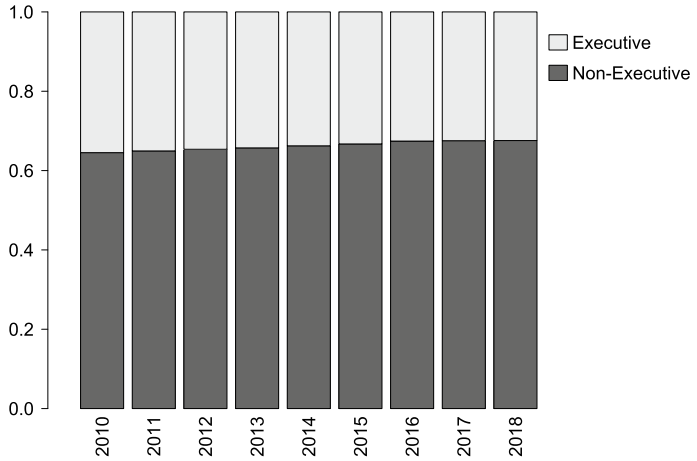

Fig. 5.10 Executive diversity index breakdown over time

the members. The independent status is declared in the company's reports. To be independent, the member must meet the requirements of the independency as described in Chapter 3. When the member is non-independent, she/he can be either a non-executive or an executive member. As Fig. 5.11 shows, this diversity index is very high for the majority of the firms, which means a good mix of independent and non-independent members. Most of the firms are very likely to have roughly 50% of the board composed by independent members and 50% of non-independent members. Looking at the composition of the variable over time, represented in Fig. 5.12, it can be observed that the number of independent directors increases, matching with the previous data observed in the *executive diversity* index. Thus, even in this case the number of independent directors probably increased over time to better respond to the legal requirements and the pressure for independence asked by stakeholders.

Directorship Experience Diversity. The *directorship experience diversity* index is constructed considering the number of current boards in which she/he sits plus the number of previous directorships. As reported in Fig. 5.13, this diversity index median is not changing a lot over time, being always between 0.65 and 0.68. It is very likely that companies have

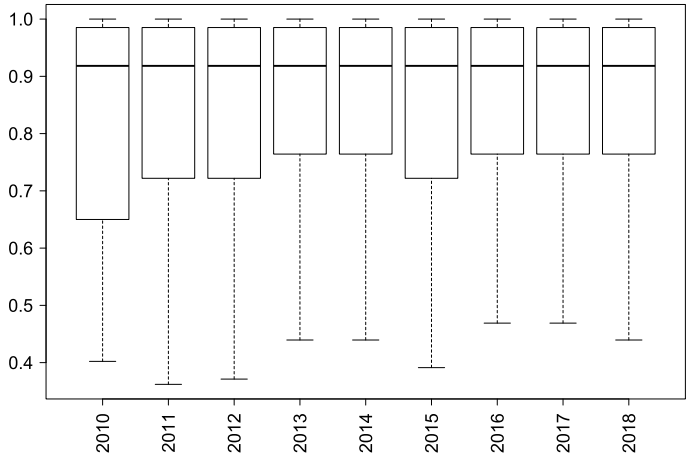

Fig. 5.11 Independence diversity index boxplot

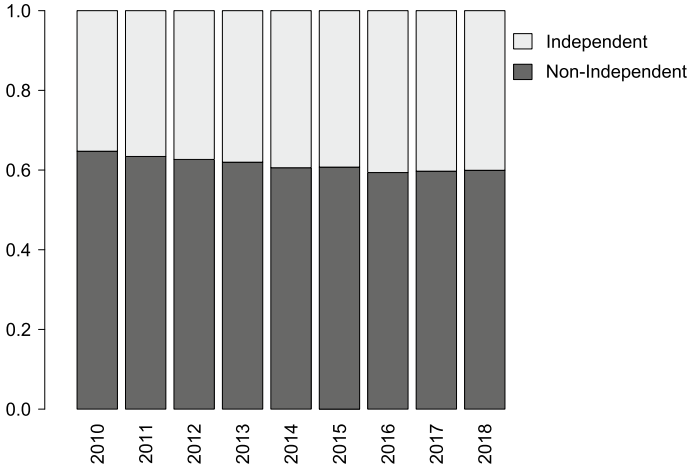

Fig. 5.12 Independence diversity index breakdown over time

both members with a lot of experience and members with a reduced experience in other boards. The higher the index, the higher the mix among members in terms of directorship experience. Data show that, with the

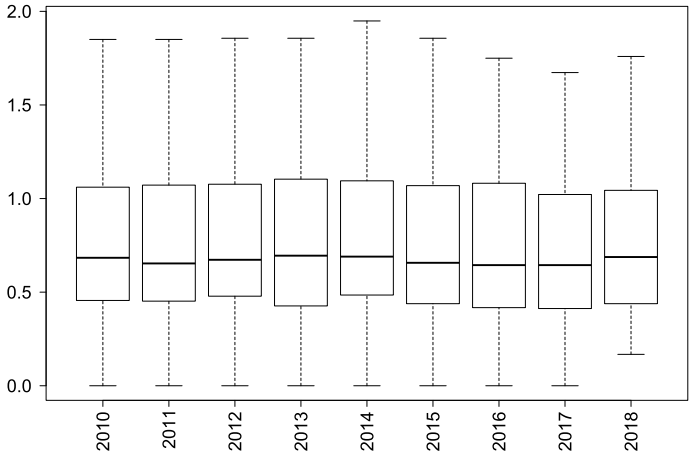

Fig. 5.13 Directorship experience diversity index boxplot

exception for the year 2018, in all the years the diversity index is equal to zero for some firms. Thus, for these firms the board is composed by directors presenting the same level of directorship experience. If the index is not zero, but still low, it means that the firm has a board composed by members with similar (a lot or just a few) experiences. Looking at the trend of the variable over time, shown in Fig. 5.14, the mean is around 2.5 along the whole period of time, with a maximum in the year 2013 and a minimum in the year 2018 (2.56 and 2.43, respectively). Looking at the median, it is 2 in all the years, meaning that half of the firms presents directors having a board experience lower than 2 boards, previous or current, and the other half of the firms presents directors having a board experience higher than 2 boards.

Fixed Salary Diversity. The *fixed salary diversity* index is constructed considering the amount of money received by the directors as fixed part of their remuneration. It is a continuous variable. Looking at Fig. 5.15, the diversity index median is on average never below 0.5 in the whole time period considered. The interquartile range is 0.8, with a first quartile of approximately 0.1 and a third quartile of approximately 0.9, indicating not a very high level of diversity in terms of fixed remuneration among members. However, the firms that belong to the third quartile are showing a much greater diversity range in terms of fixed remuneration

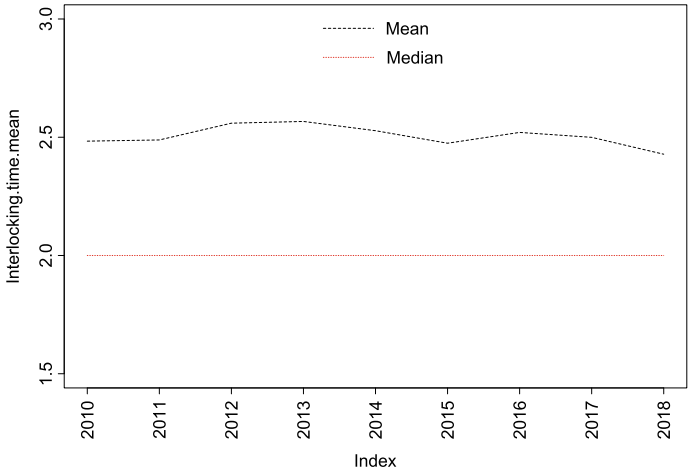

Fig. 5.14 Directorship experience index over time

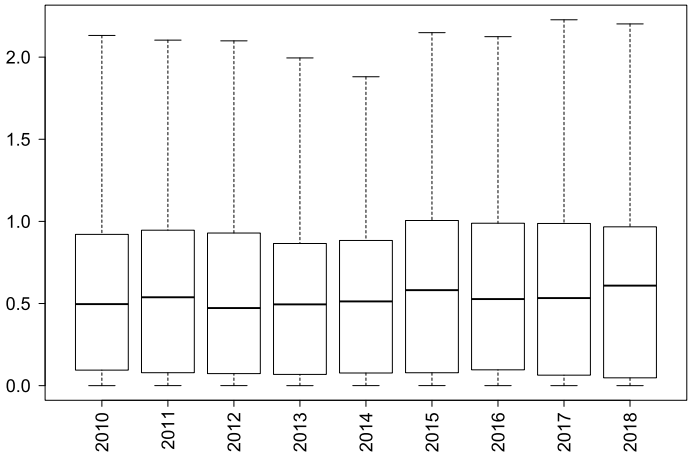

Fig. 5.15 Fixed salary diversity index boxplot

received by the different directors. Looking at the trend of the variable over time shown in Fig. 5.16, the mean reveals an increasing trend with a minimum amount of around 122,000 in 2010 and 2013 and a maximum

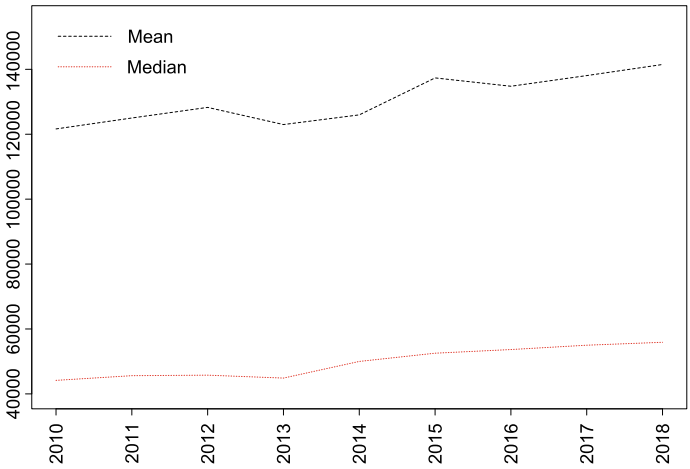

Fig. 5.16 Fixed salary index over time

amount in the year 2018, approximately around 141,000. However, the median is showing that half of the directors gets a much lower fixed remuneration (around 44,000). In 2018, the median value is slightly higher, equal to 55,900.

The gap between the median and the mean can be explained by the presence of executive and non-executive members in the same sample. The firsts present a higher remuneration, but they are lower in terms of number. However, it can be also observed that the median is showing an increasing trend over the analysed period of time. Additionally, the gap can be also due to the size of the firm because in larger firms usually the directors get higher remunerations. In order to address the issue of the co-presence of executive and non-executive, of independent and non-independent, as well as the distribution between male and female directors, a stratification was applied. Results are shown in figures from 5.17 to 5.20.

Specifically, in Fig. 5.17, the *fixed salary diversity* index is shown for the executive members only. As reported in this figure, the median average diversity index is always below 0.5, indicating not a great diversity in terms of fixed remuneration among executive directors. This data is also strengthened by the presence of a first quartile that is very thin in terms of range of fixed remuneration diversity, almost equal to zero, showing

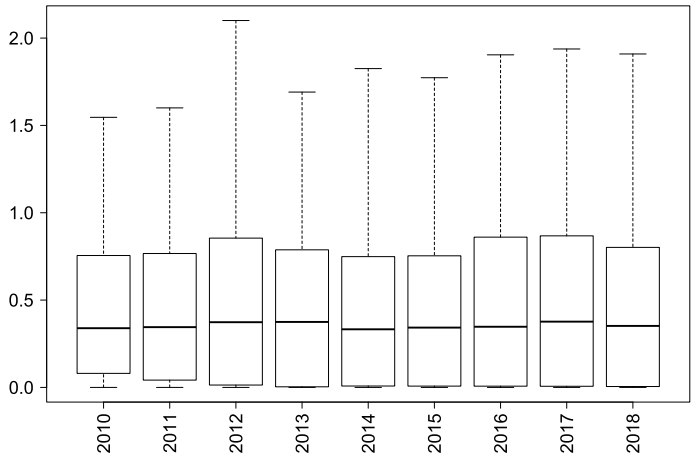

Fig. 5.17 Fixed salary diversity index boxplot—executive

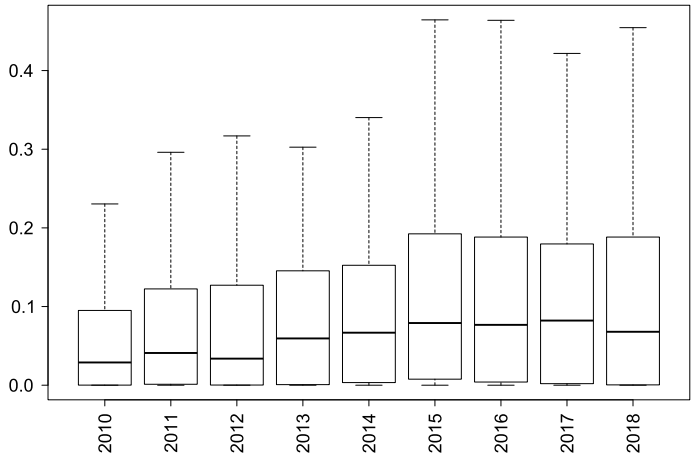

Fig. 5.18 Fixed salary diversity index boxplot—independent

no diversity at all. The third quartile, instead, presents a broader range of diversity index, indicating a high mix in terms of remuneration among the various executive members.

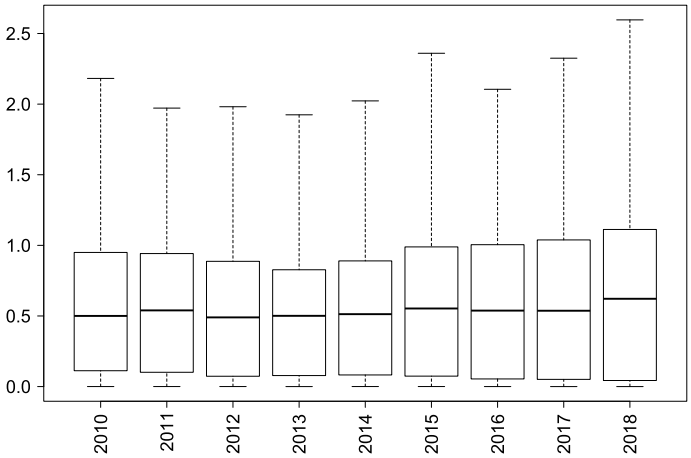

Fig. 5.19 Fixed salary diversity index boxplot—male

In Fig. 5.18, the *fixed salary diversity* index is shown for the independent members only. The plot highlights a very low diversity for the independent directors as far as the fixed remuneration is concerned. In fact, there is no reason to think about different levels of remuneration for independent directors. Moreover, compared to the remuneration received by executives, the amount will be much lower. According to the data, differences across firms increase over time, as the range of observed diversity values increases.

Another interesting aspect that should be investigated refers to the difference in the fixed remuneration received by male and female directors. In Fig. 5.19, the *fixed salary diversity* index is shown for male directors only. The average median of the diversity index varies between 0.47 and 0.63 over the considered period, reporting a slight increasing trend, which means that among male directors there is quite a good mix of different levels of fixed remuneration.

Similarly, Fig. 5.20 reveals the *fixed salary diversity* index boxplot for female directors only. The average median of this diversity index is very low, meaning that the female directors of the same board get almost the same remuneration. The interesting aspect that can be observed in the boxplot is that the first quartile of the sample presents a range of values

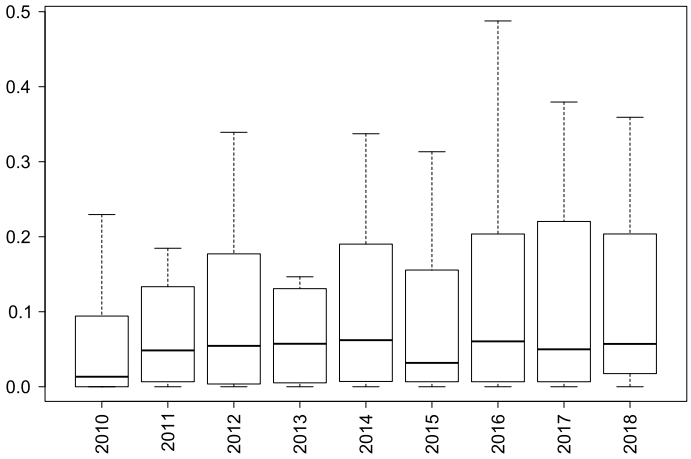

Fig. 5.20 Fixed salary diversity index boxplot—female

very low, almost equal to zero. Thus, the 75% of the sample presents a very low level of *fixed salary diversity* index for female directors.

Variable Salary Diversity. The *variable salary diversity* index is constructed considering the amount of money received by directors as variable part of their remuneration package. It is a continuous variable. Looking at Fig. 5.21, the diversity index median is very low, meaning that the largest amount of the firms in the sample presents no big differences among directors in terms of variable remuneration, mainly because null or small amounts are given. Nevertheless, when a variable remuneration is added to the fixed one, it might be substantial. The index median on average varies among 0.35 and 0.45 in the considered time period. Firms belonging to the first quartile present all an amount of the index equal to 0, thus no diversity at all in terms of variable remuneration, which means that the variable part is equal for all the directors or that no one is getting a variable remuneration at all. However, looking at the third quartile, the difference in terms of variable remuneration received by the various directors within the same board changes a lot, because the index is much higher. Looking at the trend of the variable over time in Fig. 5.22, the mean shows a first drop from the year 2010 to the year 2011, with a minimum of approximately 200,000 Euros and then an increasing trend until 2017, with a maximum of 315,000 Euros. Later, another small drop

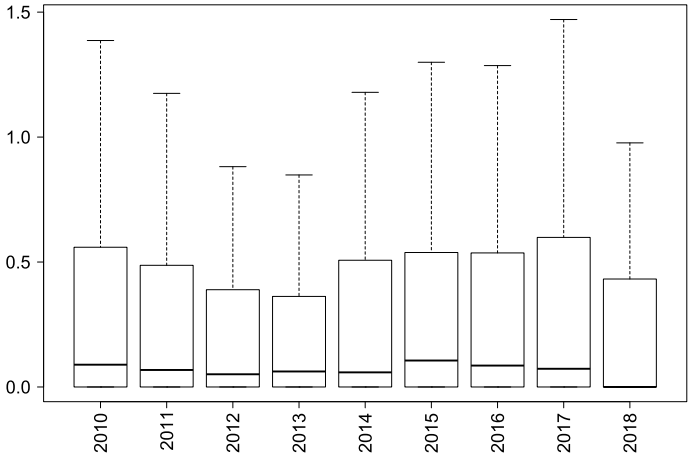

Fig. 5.21 Variable salary diversity index boxplot

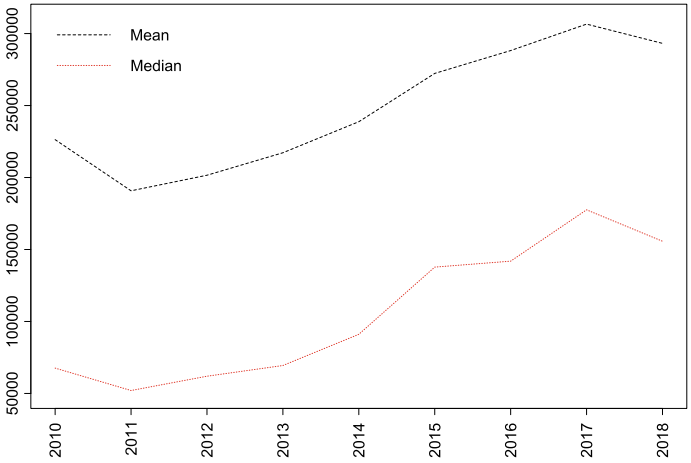

Fig. 5.22 Variable salary index over time

is shown in the year 2018, with a mean equal to approximately 300,000 Euros. As far as the median is concerned, it highlights that the trend of the mean is replicated but at lower amounts. This gap can be explained as

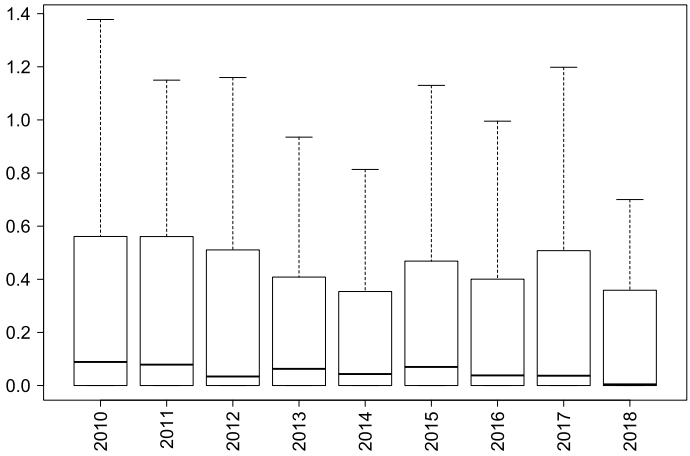

Fig. 5.23 Variable salary index boxplot—executive

for the *fixed salary diversity* index by the presence of executive and non-executive, independent and non-independent, male and female members in the same sample. A second reason can be also found again in the size difference among the firms of the sample.

It is interesting to look at the data about the *variable salary diversity* index regarding only the executive directors. In Fig. 5.23, the boxplot about this diversity index is shown. The 75% of the sample presents an index lower than 0.6 over the whole observed period, but the average median is much lower than the 0.6, because it varies between 0 and 0.1 along the whole period.

Another interesting aspect concerns the *variable salary diversity* index for male directors only. As shown in Fig. 5.24, the trend of the index is basically the same of the overall index which includes both male and female directors. This fact indicates that the trend is basically guided by the male remuneration even because they are more numerous than female. Parametric t-test were applied to compare the fixed and variable salaries by gender. Results, not reported here for sake of brevity, show that gender gap is still an issue.

Benefit Diversity. The *fringe benefit diversity* index is constructed considering the amount of money spent by the company on fringe benefits given to directors. It is a continuous variable. Looking at Fig. 5.25,

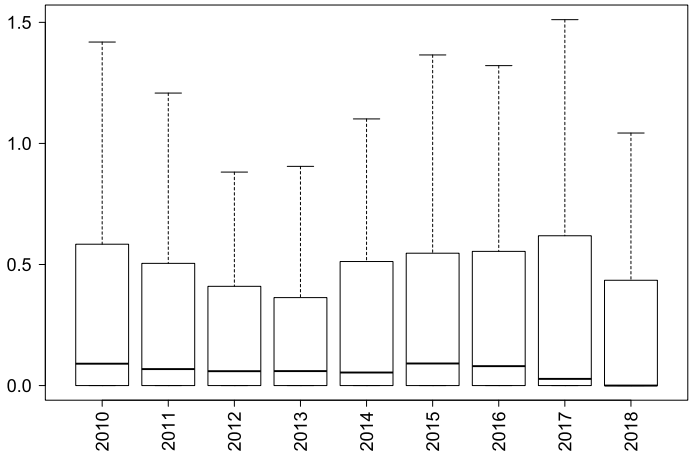

Fig. 5.24 Variable salary index boxplot—male

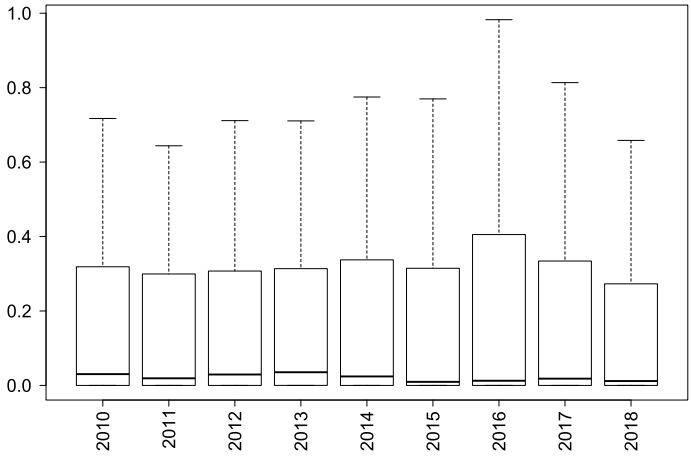

Fig. 5.25 Fringe benefits diversity index boxplot

the diversity index median is very low, meaning that the largest amount of the analysed firms presents no big differences among directors in terms of fringe benefits provided to them. Thus, in other words, directors within

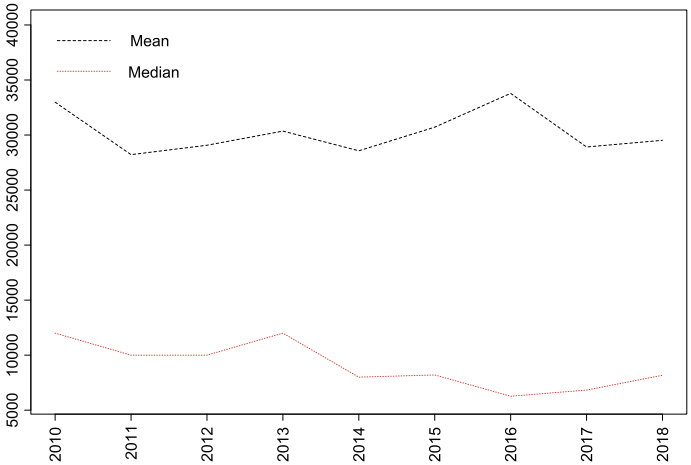

Fig. 5.26 Fringe benefits diversity index over time

the same board perceive more or less the same amount of fringe benefits. The index median on average varies among 0.34 and 0.42 in the considered time period. Firms belonging to the first quartile present all an amount of the index equal to 0, thus no diversity at all in terms of benefits, which means that no benefits are given or that all directors receive the same amount of benefits. However, looking at the third quartile, the difference in terms of fringe benefits received by directors within the same board changes a lot, because the index is much higher. Considering the trend of the variable over time as shown in Fig. 5.26, the mean is almost constant during the years. As far as the median is concerned, it almost replicates the trend shown by the mean but even in this case at lower amounts. Again, this gap could be due to the aforementioned reasons.

Age Diversity. The *age diversity* index is constructed considering the age of the directors. It is a continuous variable. From Fig. 5.27, it is evident that the median of the index is not changing a lot over the considered period of time, varying between 0.7 and 0.8 during the 9 years of observation. At the same time, firms belonging to the first quartile, equal to the 25% of the sample, present a diversity between 0.1 and 0.75, thus there is a quite broad range for this first quartile. Similarly, firms belonging to third quartile show a broad range of diversity as well. In other words, the data about age diversity show that in the corporate

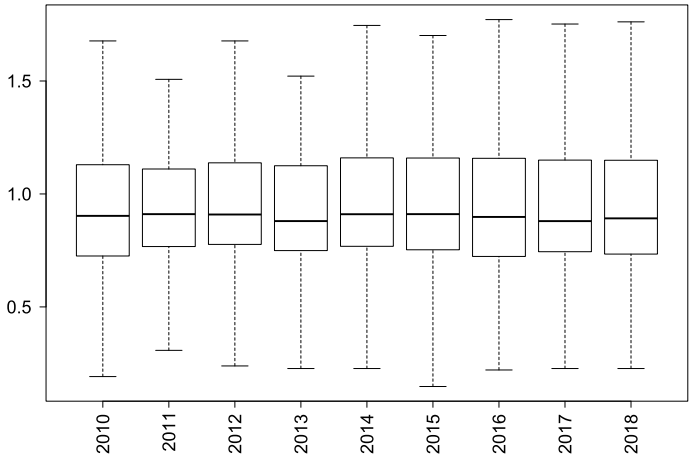

Fig. 5.27 Age diversity index boxplot

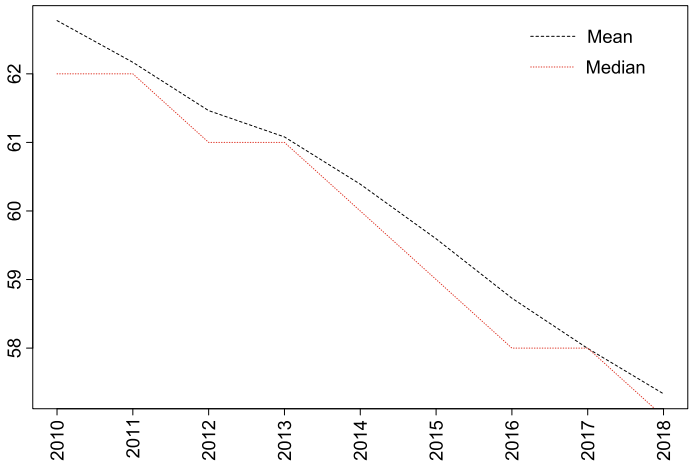

Fig. 5.28 Age diversity index over time

boards of the analysed sample directors present quite different ages. Thus, the conclusion is that there is a good mix of younger and older directors. As reported in Fig. 5.28, the median average of directors is decreasing

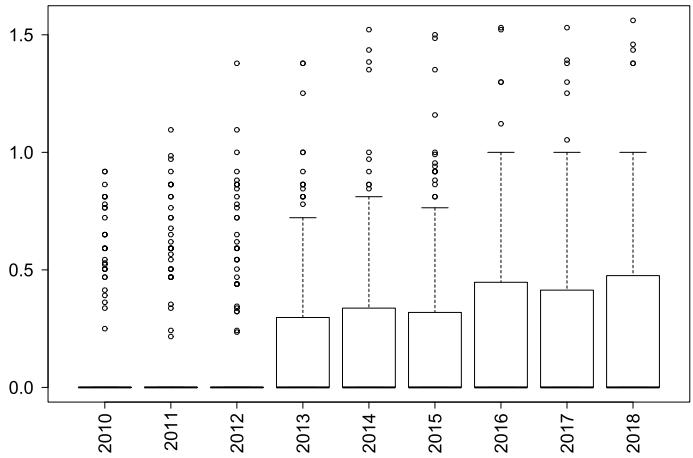

Fig. 5.29 Nationality diversity index boxplot

over time (from 62 in 2010 to 57 in 2018), as well as the mean (from almost 63 in 2010 to almost 57 in 2018). These data are very interesting because they show that boards are renewing their composition favouring younger members.

Nationality Diversity. The *nationality diversity* index measures the level of mix in terms of nationality among the board members. The index is constructed considering the following geographical regions: Europe, North America, and rest of the world. As shown in Fig. 5.29, the diversity index is very low in whole time horizon, indicating that the firms of the sample present boards that do not change a lot over time in terms of mix of nationality. The median is around 0 during the whole period of analysis. In other words, all members of the board come from the same geographical area. From Fig. 5.30, it can be observed that the European area is more predominant than the other two. Additionally, it emerges that the composition mix does not change significantly over time and that is explaining also the no change in the diversity index. Looking at numbers, boards are mainly composed by European members (86%), then a very tiny percentage of directors comes from North America (2%), and, finally, another small percentage is from other countries worldwide (12%).

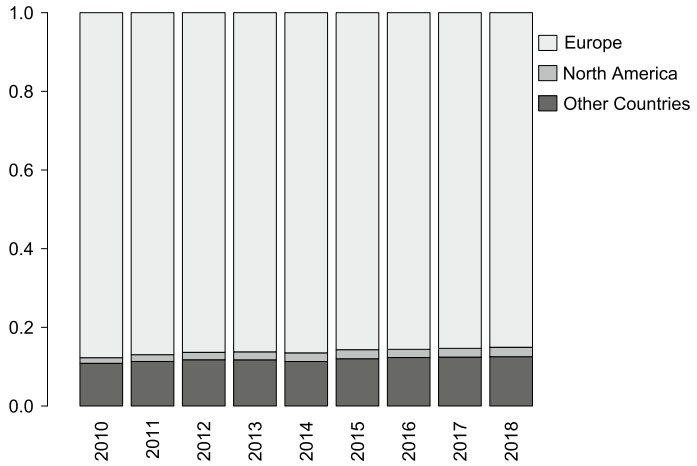

Fig. 5.30 Nationality over time

5.4 Results

From the single diversity indexes analyses run through the multilevel random effects model, in which each diversity index is tested one by one on the firm's performance, some interesting findings come out. First, the baseline model containing only the control variables was run three times to capture the effects of control variables on the three measures of firm's performance: the *Tobin's Q* in model 1A, the *ROE* in model 1B, and the *ROA* in model 1C. None of the control variables is significant, except the *number of board meetings*, which has a significant and negative effect on the firm's performance in both model 1A ($\beta = -0.02$, $p < 0.01$) and model 1C ($\beta = -0.40$, $p < 0.01$). This evidence suggests that the number of board meetings per year negatively impacts on firm's performance, aligned with the findings of previous studies (e.g. Al Matari et al. 2014; Vafeas 1999).

Then two sets of single diversity indexes models were run: model 2 considers the 12 diversity dimensions one per time and for the three measures of the dependent variable, generating model 2A (*Tobin's Q*), 2B (*ROE*) and 2C (*ROA*); model 3 adds the baseline value and the lagged performance of the dependent variable in the linear predictor, producing model 3A (*Tobin's Q*), 3B (*ROE*), and 3C (*ROA*).

In the following, the most significant results are commented, leaving the reading of the other outcomes to the data shown in the Tables 5.4, 5.5, and 5.6, which report the regressions results.

5.4.1 *Single Diversity Indexes Analysis*

Age Diversity. The *age diversity* index is slightly significant and positively related to the firm's performance only in model 2C ($\beta = 2.54$, $p < 0.1$), meaning that a heterogeneous BoD in terms of age can positively impact on the ROA. Indeed, some scholars support the idea that young and old directors mixed together can bring more fruitful ideas and outcomes in the board decision-making process, which, in turn, reflects on firm's performance (Darmadi 2011; Peterson and Spiker 2005). As far as the control variables are concerned, *size* and *number of board meetings* are significant related to the firm performance, but with a different sign (respectively, $\beta = 0.66$, $p < 0.05$ and $\beta = -0.40$, $p < 0.01$).

Tenure Diversity. The *tenure diversity* index is significantly and positively related to the firm performance in model 2A ($\beta = 0.27$, $p < 0.001$), 3A ($\beta = 0.11$, $p < 0.1$), 2C ($\beta = 2.36$, $p < 0.05$), and 3C ($\beta = 1.37$, $p < 0.05$). This outcome highlights that heterogeneity in terms of long-tenured and short-tenured directors improves the firm's financial performance, calculated with both market-based and accounting-based measures, aligned with recent studies (e.g. Li and Wahid 2018). Among the control variables, the most significant refer to (i) the *number of board meetings*, which is significantly and negatively related to the dependent variable in all the aforementioned models, (ii) the *size*, which is negatively related to the firm's performance only in model 3A, (iii) the *listing year*, which shows a positive impact on the firm's performance in both model 3A and 3C. Additionally, the lagged and the baseline predictors of model 3 are positively and strongly significantly related to the dependent variable, indicating a dynamic process of the performance. Specifically, in model 3A the *Tobin's Q lag* presents a β equal to 0.34 ($p < 0.001$) and the *Tobin's Q base* presents a β equal to 0.16 ($p < 0.001$); in model 3C, the *ROA lag* and *ROA base* show, respectively, $\beta = 0.50$ ($p < 0.001$) and $\beta = 0.14$ ($p < 0.001$).

Gender Diversity. *Gender diversity* index results significantly and positively related to the firm's performance in models 2A ($\beta = 0.30$, $p < 0.001$) and 3A ($\beta = 0.19$, $p < 0.01$). These results show that the market positively evaluates BoDs showing a good balance among genders. This

Table 5.4 Single diversity indexes analysis (Tobin's Q)

Tobin's Q	*Model 1A*	*Model 2A*	*Model 3A*	*Tobin's Q*	*Model 1A*	*Model 2A*	*Model 3A*
(1) Number of board meetings	−0.02**	−0.02**	−0.02**	(1)	−0.02**	−0.02**	−0.02**
	(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
(2) Leverage ratio	−0.01	−0.01	−0.01	(2)	−0.01	−0.01	−0.01°
	(0.00)	(0.01)	(0.01)		(0.00)	(0.01)	(0.01)
(3) Size	−0.03	−0.04	−0.04°	(3)	−0.03	−0.04°	−0.03°
	(0.03)	(0.03)	(0.02)		(0.03)	(0.03)	(0.02)
(4) Listing year	0.00	0.00	0.01*	(4)	0.00	0.01	0.01*
	(0.00)	(0.01)	(0.00)		(0.00)	(0.01)	(0.00)
Age diversity		−0.08	−0.03	Directorship experience diversity		0.03	−0.01
		(0.09)	(0.08)			(0.07)	(0.06)
Tobin's Q lag			0.35***	Tobin's Q lag			0.37***
			(0.02)				(0.03)
Tobin's Q base			0.17***	Tobin's Q base			0.14***
			(0.04)				(0.04)
Constant	0.34	0.45	-0.22	Constant	0.34	0.44	-0.30
	(0.35)	(0.37)	(0.28)		(0.35)	(0.37)	(0.27)
(1)	−0.02**	−0.02**	−0.02**	(1)	−0.02**	−0.02**	−0.02**
	(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
(2)	−0.01	−0.01	−0.01	(2)	−0.01	−0.01	−0.01°
	(0.00)	(0.01)	(0.01)		(0.00)	(0.01)	(0.01)
(3)	−0.03	−0.05°	−0.04*	(3)	−0.03	−0.04	−0.03°
	(0.03)	(0.03)	(0.02)		(0.03)	(0.03)	(0.02)
(4)	0.00	0.00	0.01*	(4)	0.00	0.01	0.01*
	(0.00)	(0.0)	(0.00)		(0.00)	(0.01)	(0.00)
Tenure diversity		0.27***	0.11°	Executive diversity		0.04	0.15
		(0.07)	(0.06)			(0.13)	(0.13)

Tobin's Q lag			0.34***	Tobin's Q lag			0.35***
			(0.02)				(0.02)
Tobin's Q base			0.16***	Tobin's Q base			0.16***
			(0.04)				(0.04)
Constant	0.34	0.34	−0.29	Constant	0.34	0.33	−0.43
	(0.35)	(0.34)	(0.25)		(0.35)	(0.38)	(0.29)
(1)	−0.02**	−0.02**	−0.02**	(1)	−0.02**	−0.02**	−0.02**
	(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
(2)	−0.01	−0.01	−0.01	(2)	−0.01	−0.01	−0.01
	(0.00)	(0.01)	(0.01)		(0.00)	(0.01)	(0.01)
(3)	−0.03	−0.06*	−0.05**	(3)	−0.03	−0.04	−0.04°
	(0.03)	(0.03)	(0.02)		(0.03)	(0.03)	(0.02)
(4)	0.00	0.00	0.01*	(4)	0.00	0.00	0.01*
	(0.00)	(0.01)	(0.00)		(0.00)	(0.01)	(0.00)
Gender diversity		0.30***	0.19**	Independence diversity		0.08	−0.01
		(0.06)	(0.06)			(0.10)	(0.10)
Tobin's Q lag			0.34***	Tobin's Q lag			0.35***
			(0.02)				(0.02)
Tobin's Q base			0.17***	Tobin's Q base			0.17***
			(0.04)				(0.04)
Constant	0.34	0.59	0.13	Constant	0.34	0.31	−0.26
	(0.35)	(0.36)	(0.26)		(0.35)	(0.36)	(0.27)
(1)	−0.02**	−0.02**	−0.02**	(1)	−0.02**	−0.02**	−0.02**
	(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)

(continued)

Table 5.4 (continued)

(2)	−0.01	−0.01	−0.01	(2)	−0.01	−0.01	−0.01
	(0.00)	(0.01)	(0.01)		(0.00)	(0.01)	(0.01)
(3)	−0.03	−0.04°	−0.04°	(3)	−0.03	−0.06*	−0.04*
	(0.03)	(0.03)	(0.02)		(0.03)	(0.03)	(0.02)
(4)	0.00	0.00	0.01*	(4)	0.00	0.01	0.01*
	(0.00)	(0.00)	(0.00)		(0.00)	(0.00)	(0.00)
Nationality diversity		0.11	0.02	Fixed salary diversity		0.13°	0.04
		(0.08)	(0.08)			(0.07)	(0.07)
Tobin's Q lag			0.35***	Tobin's Q lag			0.35***
			(0.02)				(0.03)
Tobin's Q base			0.16***	Tobin's Q base			0.16***
			(0.04)				(0.04)
Constant	0.34	0.43	−0.26	Constant	0.34	0.58	−0.16
	(0.35)	(0.35)	(0.26)		(0.35)	(0.36)	(0.27)
(1)	−0.02**	−0.02**	−0.02**	(1)	−0.02**	−0.02*	−0.01°
	(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
(2)	−0.01	−0.01	−0.01	(2)	−0.01	−0.00	−0.01
	(0.00)	(0.01)	(0.01)		(0.00)	(0.01)	(0.01)
(3)	−0.03	−0.04	−0.03°	(3)	−0.03	−0.08**	−0.07***
	(0.03)	(0.03)	(0.02)		(0.03)	(0.03)	(0.02)
(4)	0.00	0.00	0.01*	(4)	0.00	0.01	0.01*
	(0.00)	(0.00)	(0.00)		(0.00)	(0.00)	(0.00)
Educational level diversity		0.01	−0.01	Variable salary diversity		0.13***	0.15***
		(0.07)	(0.06)			(0.04)	(0.03)
Tobin's Q lag			0.35***	Tobin's Q lag			0.35***
			(0.02)				(0.03)

Tobin's Q base			0.17***	Tobin's Q base			0.15***
			(0.04)				(0.04)
Constant	0.34	0.37	−0.26	Constant	0.34	0.84*	0.09
	(0.35)	(0.35)	(0.25)		(0.35)	(0.35)	(0.25)
(1)	−0.02**	−0.02**	−0.02**	(1)	−0.02**	−0.02**	−0.02**
	(0.01)	(0.01)	(0.00)		(0.01)	(0.01)	(0.01)
(2)	−0.01	−0.00	−0.01	(2)	−0.01	−0.01	−0.01°
	(0.00)	(0.01)	(0.01)		(0.00)	(0.01)	(0.01)
(3)	−0.03	−0.05*	−0.04*	(3)	−0.03	−0.05°	−0.04*
	(0.03)	(0.03)	(0.02)		(0.03)	(0.03)	(0.02)
(4)	0.00	0.01	0.01*	(4)	0.00	0.00	0.01°
	(0.00)	(0.01)	(0.00)		(0.00)	(0.00)	(0.00)
Educational background diversity		0.18**	0.05	Fringe benefits diversity		0.02	0.04
		(0.06)	(0.06)			(0.04)	(0.03)
Tobin's Q lag			0.34***	Tobin's Q lag			0.37***
			(0.02)				(0.03)
Tobin's Q base			0.17***	Tobin's Q base			0.17***
			(0.04)				(0.04)
Constant	0.34	0.32	−0.28	Constant	0.34	0.47	−0.16
	(0.35)	(0.35)	(0.26)		(0.35)	(0.35)	(0.26)

Standard errors are in parentheses
°$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 5.5 Single diversity indexes analysis (ROE)

ROE	*Model 1B*	*Model 2B*	*Model 3B*	*ROE*	*Model 1B*	*Model 2B*	*Model 3B*
(1) Number of board meetings	−0.22	−0.24	−0.20	(1)	−0.22	−0.30	−0.26
	(0.25)	(0.25)	(0.18)		(0.25)	(0.24)	(0.19)
(2) Leverage ratio	0.06	0.06	−1.59***	(2)	0.06	0.13	−1.65***
	(0.21)	(0.21)	(0.24)		(0.21)	(0.21)	(0.25)
(3) Size	1.06°	1.03	−0.08	(3)	1.06°	1.01°	−0.01
	(0.62)	(0.62)	(0.27)		(0.62)	(0.61)	(0.28)
(4) Listing year	0.12	0.12	0.04	(4)	0.12	0.09	0.04
	(0.10)	(0.10)	(0.04)		(0.10)	(0.10)	(0.04)
Age diversity		−2.99	0.39	Directorship experience diversity		−2.39	−0.03
		(2.65)	(1.69)			(2.01)	(1.26)
ROE lag			0.57***	ROE lag			0.53***
			(0.03)				(0.03)
ROE base			0.20***	ROE base			0.20***
			(0.04)				(0.04)
Constant	−3.96	−0.43	4.15	Constant	−3.96	0.24	4.79
	(8.52)	(9.12)	(4.44)		(8.52)	(8.65)	(4.17)
(1)	−0.22	−0.20	−0.20	(1)	−0.22	−0.22	−0.21
	(0.25)	(0.25)	(0.18)		(0.25)	(0.25)	(0.18)
(2)	0.06	−0.23	−1.59***	(2)	0.06	0.06	−1.59***
	(0.21)	(0.22)	(0.24)		(0.21)	(0.21)	(0.24)
(3)	1.06°	1.08°	−0.08	(3)	1.06°	1.06°	−0.02
	(0.62)	(0.61)	(0.27)		(0.62)	(0.63)	(0.28)
(4)	0.12	0.10	0.03	(4)	0.12	0.12	0.04
	(0.10)	(0.10)	(0.04)		(0.10)	(0.10)	(0.04)
Tenure diversity		3.32	1.15	Executive diversity		1.02	2.53
		(2.02)	(1.08)			(4.18)	(3.29)

ROE lag			0.57***	ROE lag			0.57***
			(0.03)				(0.03)
ROE base			0.20***	ROE base			0.20***
			(0.04)				(0.04)
Constant	−3.96	−5.90	3.91	Constant	−3.96	−4.78	1.70
	(8.52)	(8.44)	(3.81)		(8.52)	(9.79)	(5.36)
(1)	−0.22	−0.22	−0.21	(1)	−0.22	−0.22	−0.21
	(0.25)	(0.25)	(0.18)		(0.25)	(0.25)	(0.18)
(2)	0.06	0.06	−1.59***	(2)	0.06	0.06	−1.59***
	(0.21)	(0.21)	(0.25)		(0.21)	(0.21)	(0.24)
(3)	1.06°	0.92	−0.08	(3)	1.06°	1.03°	−0.11
	(0.62)	(0.65)	(0.30)		(0.62)	(0.62)	(0.27)
(4)	0.12	0.12	0.04	(4)	0.12	0.12	0.04
	(0.10)	(0.10)	(0.04)		(0.10)	(0.10)	(0.04)
Gender diversity		1.17	−0.11	Independence diversity		−0.32	−1.33
		(1.98)	(1.57)			(3.08)	(2.29)
ROE lag			0.57***	ROE lag			0.57***
			(0.03)				(0.03)
ROE base			0.20***	ROE base			0.20***
			(0.04)				(0.04)
Constant	−3.96	−2.61	4.58	Constant	−3.96	−3.30	6.06
	(8.52)	(8.69)	(3.90)		(8.52)	(8.97)	(4.46)
(1)	−0.22	−0.23	−0.21	(1)	−0.22	−0.23	−0.20
	(0.25)	(0.25)	(0.18)		(0.25)	(0.26)	(0.19)

(continued)

Table 5.5 (continued)

(2)	0.06	0.06	−1.59***	(2)	0.06	0.09	−1.58***
	(0.21)	(0.21)	(0.24)		(0.21)	(0.22)	(0.25)
(3)	1.06°	0.98	−0.08	(3)	1.06°	0.82	−0.12
	(0.62)	(0.63)	(0.27)		(0.62)	(0.68)	(0.32)
(4)	0.12	0.12	0.04	(4)	0.12	0.14	0.04
	(0.10)	(0.10)	(0.04)		(0.10)	(0.10)	(0.04)
Nationality diversity		1.81	−0.08	Fixed salary diversity		1.03	0.36
		(2.49)	(1.62)			(1.96)	(1.18)
ROE lag			0.57***	ROE lag			0.56***
			(0.03)				(0.03)
ROE base			0.20***	ROE base			0.21***
			(0.04)				(0.04)
Constant	−3.96	−3.03	4.61	Constant	−3.96	−1.90	4.62
	(8.52)	(8.60)	(3.84)		(8.52)	(9.12)	(4.23)
(1)	−0.22	−0.22	−0.22	(1)	−0.22	−0.02	−0.19
	(0.25)	(0.25	(0.18)		(0.25)	(0.27)	(0.19)
(2)	0.06	0.06	−1.58***	(2)	0.06	0.13	−1.49***
	(0.21)	(0.21)	(0.24)		(0.21)	(0.22)	(0.24)
(3)	1.06°	1.09°	0.02	(3)	1.06°	0.47	−0.52°
	(0.62)	(0.64)	(0.29)		(0.62)	(0.66)	(0.31)
(4)	0.12	0.12	0.04	(4)	0.12	0.13	0.01
	(0.10)	(0.10)	(0.04)		(0.10)	(0.10)	(0.04)
Educational level diversity		−0.73	−1.26	Variable salary diversity		2.88*	3.11***
		(1.99)	(1.25)			(1.17)	(0.84)
ROE lag			0.57***	ROE lag			0.56***
			(0.03)				(0.03)

ROE base			0.20***	ROE base			0.20***
			(0.04)				(0.04)
Constant	−3.96	−3.62	4.59	Constant	−3.96	0.96	9.78*
	(8.52)	(8.52)	(3.77)		(8.52)	(9.08)	(4.24)
(1)	−0.22	−0.22	−0.21	(1)	−0.22	−0.25	−0.18
	(0.25)	(0.25)	(0.18)		(0.25)	(0.26)	(0.19)
(2)	0.06	0.06	−1.60***	(2)	0.06	0.10	−1.61***
	(0.21)	(0.21)	(0.25)		(0.21)	(0.22)	(0.25)
(3)	1.06°	1.13°	−0.14	(3)	1.06°	0.90	−0.14
	(0.62)	(0.65)	(0.29)		(0.62)	(0.66)	(0.29)
(4)	0.12	0.12	0.04	(4)	0.12	0.12	0.04
	(0.10)	(0.10)	(0.04)		(0.10)	(0.10)	(0.04)
Educational background diversity		−0.87	0.58	Fringe benefits diversity		1.13	0.42
		(1.86)	(1.15)			(1.14)	(0.69)
ROE lag			0.58***	ROE lag			0.57***
			(0.03)				(0.03)
ROE base			0.20***	ROE base			0.20***
			(0.04)				(0.04)
Constant	−3.96	−3.54	4.58	Constant	−3.96	−2.62	5.04
	(8.52)	(8.51)	(3.76)		(8.52)	(9.05)	(4.17)

Standard errors are in parentheses
°$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Table 5.6 Single diversity indexes analysis (ROA)

ROA	*Model 1C*	*Model 2C*	*Model 3C*	*ROA*	*Model 1C*	*Model 2C*	*Model 3C*
(1) Number of board meetings	−0.40** (0.12)	−0.40** (0.12)	−0.31** (0.10)	(1)	−0.40** (0.12)	−0.44*** (0.11)	−0.35*** (0.10)
(2) Leverage ratio	−0.04 (0.08)	−0.04 (0.08)	−0.05 (0.08)	(2)	−0.04 (0.08)	−0.03 (0.08)	−0.05 (0.08)
(3) Size	0.60° (0.31)	0.66* (0.31)	0.00 (0.15)	(3)	0.60° (0.31)	0.29 (0.30)	−0.06 (0.15)
(4) Listing year	0.07 (0.05)	0.07 (0.05)	0.05* (0.02)	(4)	0.07 (0.05)	0.07 (0.05)	0.05* (0.02)
Age diversity		2.54° (1.31)	1.07 (089)	Directorship experience diversity		−0.01 (0.99)	0.53 (0.65)
ROA lag			0.50*** (0.03)	ROA lag			0.46*** (0.03)
ROA base			0.15*** (0.03)	ROA base			0.16*** (0.03)
Constant	−1.21 (4.24)	−4.51 (4.54)	2.31 (2.39)	Constant	−1.21 (4.24)	3.26 (4.27)	4.23° (2.26)
(1)	−0.40** (0.12)	−0.40*** (0.12)	−0.32*** (0.09)	(1)	−0.40** (0.12)	−0.40** (0.12)	−0.32*** (0.09)
(2)	−0.04 (0.08)	−0.07 (0.08)	−0.05 (0.08)	(2)	−0.04 (0.08)	−0.04 (0.08)	−0.05 (0.08)
(3)	0.60° (0.31)	0.59° (0.31)	−0.03 (0.14)	(3)	0.60° (0.31)	0.58° (0.32)	−0.07 (0.15)
(4)	0.07 (0.05)	0.05 (0.05)	0.04° (0.02)	(4)	0.07 (0.05)	0.07 (0.05)	0.04* (0.02)
Tenure diversity		2.36* (1.01)	1.37* (0.56)	Executive diversity		−1.47 (2.09)	−0.77 (1.72)

ROA lag			0.50***	ROA lag			0.50***
			(0.03)				(0.03)
ROA base			0.14***	ROA base			0.14***
			(0.03)				(0.03)
Constant	−1.21	−2.42	3.01	Constant	−1.21	0.31	5.05°
	(4.24)	(4.20)	(1.99)		(4.24)	(4.92)	(2.87)
(1)	−0.40**	−0.40***	−0.32***	(1)	−0.40**	−0.41***	−0.32***
	(0.12)	(0.12)	(0.09)		(0.12)	(0.12)	(0.09)
(2)	−0.04	−0.04	−0.04	(2)	−0.04	(0.08)	−0.05
	(0.08)	(0.08)	(0.08)		(0.08)		(0.08)
(3)	0.60°	0.56°	0.02	(3)	0.60°	0.62*	−0.06
	(0.31)	(0.33)	(0.16)		(0.31)	(0.31)	(0.15)
(4)	0.07	0.07	0.05*	(4)	0.07	0.07	0.05*
	(0.05)	(0.05)	(0.02)		(0.05)	(0.05)	(0.02)
Gender diversity		0.52	−0.80	Independence diversity		0.96	−0.26
		(0.99)	(0.82)			(1.54)	(1.21)
ROA lag			0.50***	ROA lag			0.50***
			(0.03)				(0.03)
ROA base			0.14***	ROA base			0.14***
			(0.03)				(0.03)
Constant	−1.21	−0.96	3.62°	Constant	−1.21	−2.25	4.43°
	(4.24)	(4.33)	(2.09)		(4.24)	(4.47)	(2.38)
(1)	−0.40**	−0.40**	−0.31***	(1)	−0.40**	−0.45***	−0.34***
	(0.12)	(0.12)	(0.09)		(0.12)	(0.13)	(0.10)

(continued)

Table 5.6 (continued)

(2)	−0.04	−0.04	−0.05	(2)	−0.04	−0.03	−0.04
	(0.08)	(0.08)	(0.08)		(0.08)	(0.08)	(0.08)
(3)	0.60°	0.62*	−0.04	(3)	0.60°	0.46	−0.08
	(0.31)	(0.31)	(0.15)		(0.31)	(0.34)	(0.17)
(4)	0.07	0.07	0.05*	(4)	0.07	0.08	0.05*
	(0.05)	(0.05)	(0.02)		(0.05)	(0.05)	(0.02)
Nationality diversity		−0.27	−0.24	Fixed salary diversity		0.74	0.66
		(1.24)	(0.84)			(0.96)	(0.61)
ROA lag			0.50***	ROA lag			0.49***
			(0.03)				(0.03)
ROA base			0.15***	ROA base			0.15***
			(0.03)				(0.03)
Constant	−1.21	−1.45	4.06	Constant	−1.21	0.07	4.09°
	(4.24)	(4.26)	(2.05)		(4.24)	(4.53)	(2.24)
(1)	−0.40**	−0.40**	−0.33***	(1)	−0.40**	−0.39**	−0.35***
	(0.12)	(0.12)	(0.09)		(0.12)	(0.14)	(0.10)
(2)	−0.04	−0.04	−0.05	(2)	−0.04	−0.03	−0.04
	(0.08)	(0.08)	(0.08)		(0.08)	(0.08)	(0.08)
(3)	0.60°	0.58°	0.01	(3)	0.60°	0.40	−0.21
	(0.31)	(0.32)	(0.15)		(0.31)	(0.34)	(0.17)
(4)	0.07	0.07	0.05*	(4)	0.07	0.08	0.05*
	(0.05)	(0.05)	(0.02)		(0.05)	(0.05)	(0.02)
Educational level diversity		0.42	−0.74	Variable salary diversity		0.71	1.06*
		(0.99)	(0.67)			(0.59)	(0.44)
ROA lag			0.49***	ROA lag			0.50***
			(0.03)				(0.03)

ROA base			0.14***	ROA base			0.14***
			(0.03)				(0.04)
Constant	−1.21	−1.38	4.12*	Constant	−1.21	0.54	5.96*
	(4.24)	(4.25)	(2.05)		(4.24)	(4.66)	(2.29)
(1)	−0.40**	−0.41***	−031***	(1)	−0.40**	−0.48***	−0.35***
	(0.12)	(0.12)	(0.09)		(0.12)	(0.13)	(0.10)
(2)	−0.04	−0.04	−0.05	(2)	−0.04	−0.03	−0.05
	(0.08)	(0.08)	(0.08)		(0.08)	(0.08)	(0.08)
(3)	0.60°	0.51	−0.04	(3)	0.60°	0.70*	−0.01
	(0.31)	(0.33)	(0.16)		(0.31)	(0.33)	(0.16)
(4)	0.07	0.07	0.05*	(4)	0.07	0.08°	0.05*
	(0.05)	(0.05)	(0.02)		(0.05)	(0.05)	(0.02)
Educational background diversity		0.99	−0.07	Fringe benefits diversity		−0.48	0.02
		(0.92)	(0.60)			(0.57)	(0.36)
ROA lag			0.50***	ROA lag			0.50***
			(0.03)				(0.03)
ROA base			0.14***	ROA base			0.14***
			(0.03)				(0.03)
Constant	−1.21	−1.48	4.17	Constant	−1.21	−2.50	3.57
	(4.24)	(4.27)	(2.02)		(4.24)	(4.46)	(2.23)

Standard errors are in parentheses
°$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

outcome is aligned with several previous studies (e.g. Nygaard 2011; Joecks et al. 2013; Kotiranta, et al. 2007; Magnanelli et al. 2020). Additionally, in both these models, the *number of board meetings* and the *size* impact negatively on the firm's performance, while the *listing year* control variable is significant and positively related to the dependent variable only in model 3C. Finally, in model 3A the *Tobin's Q lag* (β =0.34, $p < 0.001$) and the *Tobin's Q base* (β =0.17, $p < 0.001$) show a significant dynamic process of the performance.

Nationality Diversity. The *nationality diversity* index does not present any significant relation with the firm performance in none of the two models.

Educational Level Diversity. The *educational level diversity* index does not present any significant relation with the firm performance in none of the two models.

Educational Background Diversity. The *educational background diversity* index results significantly and positively related to the firm's performance in model 2A ($\beta = 0.18$, $p < 0.01$). This result indicates that firm's performance can take advantages from different educational settings among its directors, as stated by some scholars (e.g. Cox and Blake 1991; Robinson and Dechant 1997). As in previous cases, the *number of board meetings* and the *size* impact negatively on the firm's performance.

Directorship Experience Diversity. The *directorship experience diversity* index does not present any significant relation with the firm performance in none of the two models.

Executive Diversity. The *executive diversity* index does not present any significant relation with the firm performance in none of the two models.

Independence Diversity. The *independence diversity* index does not present any significant relation with the firm performance in none of the two models.

Fixed Salary Diversity. The *fixed salary diversity* index is slightly significant and positively related to the firm's performance only in model 2A ($\beta = 0.13$, $p < 0.1$), with *number of board meetings* and the *size* affecting negatively the firm's performance.

Variable Salary Diversity. The *variable salary index* is significantly and positively related to the firm performance in almost all the models. Specifically, it shows up the following outcomes: in model 2A, $\beta = 0.13$ ($p < 0.001$), with the *number of board meetings* and *size* impacting negatively

on *Tobin's Q*; in model 3A, $\beta = 0.15$ ($p < 0.001$), with the *number of board meetings* and *size* impacting negatively on *Tobin's Q* and the *listing year*, the *Tobin's Q lagged*, and the *Tobin's Q base* affecting positively the dependent variable; in model 2B, $\beta = 2.88$ ($p < 0.05$); in model 2C, $\beta = 3.1$ ($p < 0.001$), with a negative impact from the *leverage ratio* and the *size* and a positive impact generated by *ROE lagged*, and the *ROE base*; in model 3C, $\beta = 1.06$ ($p < 0.05$), with a negative impact given by the *number of board meetings* and a positive one by the *ROA lagged* and the *ROA base*.

These findings are particularly interesting because they indicate that the broader the heterogeneity in terms of variable remuneration among the directors the better the performance of the firm. Thus, it seems that when the variable part is highly differentiated among members, it stimulates them in terms of final outcomes to be achieved. A key reading of this phenomenon can be traced from a psychological point of view in order to understand the individual behaviour in organizational settings. The heterogeneity among directors in terms of variable remuneration can be seen as a factor that stimulates competitiveness among the members sitting in the same board that, in turn, generates higher returns for the firm. Matching this result with the data of the descriptive statistics, this aspect is particularly relevant when it comes to executive directors.

Fringe Benefits Diversity. The *fringe benefit diversity* index does not present any significant relation with the firm performance in none of the two models.

5.4.2 Joint Diversity Indexes Analysis

As far as the multilevel modelling briefly sketched before is concerned, the model aims at testing the firm performance considering the diversity dimensions indexes all at the same time. As mentioned above, two models (Models 4 and 5) were run. Specifically, model 4 is designed to capture the joint effects of all the diversity dimensions indexes, while model 5 adds the lagged performance in the linear predictor to address the time dependence issue of the dependent variable. Each model presents three sub-models, one per each dependent variable. In sum, models 4A and 5A referred to the *Tobin's Q*, 4B and 5B to *ROE*, and, finally, 4C and 5C to *ROA*.

In Table 5.7, results of model 4A and 5A are reported. Several diversity dimension indexes are significant in explaining the Tobin's Q. Specifically,

Table 5.7 Joint diversity indexes analysis (Tobin's Q)

Tobin's Q	*Model 4A*	*Model 5A*
Age diversity	−0.20*	−0.07
	(0.09)	(0.09)
Tenure diversity	0.27***	0.11
	(0.08)	(0.07)
Gender diversity	0.32***	0.24***
	(0.07)	(0.07)
Nationality diversity	0.02	−0.08
	(0.09)	(0.08)
Educational level diversity	−0.01	0.03
	(0.08)	(0.07)
Educational background diversity	0.16*	0.02
	(0.07)	(0.06)
Directorship experience diversity	0.02	−0.02
	(0.08)	(0.07)
Executive diversity	0.23	0.28°
	(0.18)	(0.16)
Independence diversity	0.01	−0.03
	(0.13)	(0.11)
Fixed salary diversity	-0.01	−0.10
	(0.08)	(0.07)
Variable salary diversity	0.13***	0.15***
	(0.04)	(0.03)
Fringe benefits diversity	0.02	0.05
	(0.04)	(0.04)
Number of board meetings	−0.02*	−0.01°
	(0.01)	(0.01)
Leverage ratio	−0.01	−0.01*
	(0.01)	(0.01)
Size	−0.14***	−0.08***
	(0.03)	(0.02)
Listing year	0.00	0.01°
	(0.01)	(0.00)
Tobin's Q lag		0.41***
		(0.03)
Tobin's Q base		0.11**
		(0.04)
Constant	1.08*	−0.07
	(0.45)	(0.35)

Standard errors are in parentheses
°$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

in model 4A, while *age diversity* shows a negative impact ($\beta = -0.20$, $p < 0.05$), the *tenure diversity* ($\beta = 0.27$, $p < 0.001$), the *gender diversity* ($\beta = 0.32$, $p < 0.001$), the *educational background* ($\beta = 0.16$, $p < 0.05$), and *variable salary diversity* ($\beta = 0.13$, $p < 0.001$) present a positive effect. Furthermore, two control variables present a negative relation with the dependent variable, namely the *number of board meetings* ($\beta = -0.02$, $p < 0.05$) and the *size* ($\beta = -0.14$, $p < 0.001$).

It is interesting to look at the different result that is got for the *age diversity*: when it is tested separately and the dependent variable was the *ROA* there was a positive effect on the firm performance, while testing the variable together with the other different dimensions, the effect on the firm performance is negative, but when the dependent variable is the *Tobin's Q*. This finding suggests that the market pays attention and evaluates negatively the mix of more and less aged members in the board, because it could generate conflicts among opinions, and way of operating, reducing the effectiveness of the decision-making process of the board (Shehata et al. 2017). In addition, the findings concerning the *tenure diversity*, the *gender diversity*, the *educational background diversity*, and the *variable salary diversity* confirm the ones found when these variables are tested separately.

Model 5A highlights similar results. More in depth, the *gender diversity* ($\beta = 0.24$, $p < 0.001$), the *executive diversity* ($\beta = 0.28$, $p < 0.1$), and the *variable salary diversity* ($\beta = 0.15$, $p < 0.001$) are positively related to *Tobin's Q*. Furthermore, with the exception of the *listing year*, all the control variables show a negative but significant impact on the firm's performance, as follows: *number of board meetings* ($\beta = -0.01$, $p < 0.1$), *leverage ratio* ($\beta = -0.01$, $p < 0.05$), and *size* ($\beta = -0.08$, $p < 0.001$). Finally, the use of a log-transformation ensures that the assumptions behind the regression model are fulfilled. In fact, in the model *Tobin's Q lag* ($\beta = 0.41$, $p < 0.001$) and *Tobin's base* ($\beta = 0.11$, $p < 0.01$) are positively related to the dependent variable, indicating that the performance clearly shows a time-dependent behaviour. These results confirm the ones already found in model 4A for the *gender diversity* and the *variable salary diversity*. Moreover, in this case also an effect of the *executive diversity* index emerges, indicating that a higher level of heterogeneity in terms of role within the board leads to better firm outcomes.

As far as models 4B and 5B are concerned, results are presented in Table 5.8. Model 4B shows only one significant diversity dimension, i.e.

Table 5.8 Joint diversity indexes analysis (ROE)

ROE	*Model 4B*	*Model 5B*
Age diversity	−1.65	−0.59
	(2.76)	(1.81)
Tenure diversity	3.55	1.18
	(2.20)	(1.24)
Gender diversity	2.52	0.62
	(2.20)	(1.73)
Nationality diversity	2.47	1.19
	(2.60)	(1.72)
Educational level diversity	−1.20	−1.96
	(2.20)	(1.46)
Educational background diversity	0.28	0.23
	(2.06)	(1.27)
Directorship experience diversity	−1.82	1.13
	(2.15)	(1.28)
Executive diversity	8.87	8.49*
	(5.42)	(4.02)
Independence diversity	−0.83	−0.81
	(3.75)	(2.45)
Fixed salary diversity	−1.80	−2.67°
	(2.05)	(1.40)
Variable salary diversity	3.08**	3.94***
	(1.15)	(0.93)
Fringe benefits diversity	1.53	1.12
	(1.26)	(0.80)
Number of board meetings	−0.18	−0.30
	(0.26)	(0.20)
Leverage ratio	−0.14	−1.59***
	(0.21)	(0.25)
Size	0.52	−0.15
	(0.75)	(0.37)
Listing year	0.03	−0.03
	(0.10)	(0.04)
Tobin's Q lag		0.53***
		(0.03)
Tobin's Q base		0.17***
		(0.04)
Constant	−2.95	1.47
	(12.19)	(7.28)

Standard errors are in parentheses
°$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

the *variable salary diversity* ($\beta = 3.08$, $p < 0.01$). A more articulated situation is reported in model 5B, where the *executive diversity* is positively related to the firm's performance ($\beta = 8.49$, $p < 0.05$), as well as the *variable salary diversity* ($\beta = 3.94$, $p < 0.001$), and the *fixed salary diversity* is negatively related to the dependent variable ($\beta = -2.67$, $p < 0.1$). Moreover, the *ROE* is negatively impacted by the *leverage ratio* ($\beta = -1.59$, $p < 0.001$). Finally, the *ROE lag* ($\beta = 0.53$, $p < 0.001$) and *ROE base* ($\beta = 0.17$, $p < 0.001$) are positively related to the dependent variable, indicating even in this case that the performance has a time-dependent behaviour.

It is interesting to see that in model 4A where the firm's performance is measured with the Tobin's Q several diversity variables are significant, while in model 4B, where the firm's performance is measured with the ROE there is no significant result, with the exception of the *variable salary diversity*. This finding suggests that the market pays and positively evaluates firms promoting heterogeneous boards. Looking at the differences between model 5A and 5B, instead, no huge discrepancies are found. Moreover, introducing the time-dependent behaviour of the performance led to results that in both cases show the dynamic process of the performance.

Lastly, Table 5.9 reports the results for models 4C and 5C in which the dependent variable is measured by the ROA. The *tenure diversity* ($\beta = 1.97$, $p < 0.\ 1$) and the *gender diversity* ($\beta = 2.05$, $p < 0.1$) are positively related to the firm's performance in model 4C, where in addition the *number of board meetings* is negatively related to the dependent variable ($\beta = -0.44$, $p < 0.001$). Thus, this model does not present particularly relevant findings. Similarly, model 5C highlights a positive but weak significance for the tenure diversity ($\beta = 1.23$, $p < 0.1$) and a positive significance in case of *variable salary diversity* ($\beta = 1.23$, $p < 0.05$). Also in this case, the *number of board meetings* is negatively related to the dependent variable ($\beta = -0.38$, $p < 0.001$). Finally, as in previous models, the dynamic process of the performance is confirmed by the *ROA lag* ($\beta = 0.45$, $p < 0.001$) and *ROA base* ($\beta = 0.14$, $p < 0.001$).

Compared to models 4A, model 4C confirms the two results about the *tenure diversity* and the *gender diversity* shown in model 4A, even if with a much lower significance. Nevertheless, these findings indicate that the firm's performance is positively affected by these two aspects of board diversity, no matter the type of measure (market- or accounting-based) used for the firm's performance. Finally, comparing model 5C to models

Table 5.9 Joint diversity indexes analysis (ROA)

ROA	*Model 4C*	*Model 5C*
Age diversity	1.23	0.14
	(1.39)	(0.98)
Tenure diversity	1.97°	1.23°
	(1.11)	(0.69)
Gender diversity	2.05°	0.36
	(1.10)	(0.91)
Nationality diversity	0.79	1.14
	(1.32)	(0.96)
Educational level diversity	0.92	-0.83
	(1.11)	0.80)
Educational background diversity	0.83	−0.17
	(1.02)	(0.69)
Directorship experience diversity	0.26	0.76
	(1.08)	(0.71)
Executive diversity	0.42	1.99
	(2.65)	(2.08)
Independence diversity	−0.29	−0.22
	(1.87)	(1.36)
Fixed salary diversity	0.87	0.40
	(1.03)	(0.75)
Variable salary diversity	0.74	1.23*
	(0.57)	(0.48)
Fringe benefits diversity	−0.70	−0.20
	(0.63)	(0.43)
Number of board meetings	-0.44***	−0.38***
	(0.13)	(0.10)
Leverage ratio	−0.04	−0.03
	(0.08)	(0.08)
Size	−0.21	−0.25
	(0.38)	(0.21)
Listing year	0.08	0.03
	(0.05)	(0.03)
Tobin's Q lag		0.45***
		(0.03)
Tobin's Q base		0.14***
		(0.04)
Constant	2.93	4.45
	(6.14)	(3.93)

Standard errors are in parentheses
°$p < 0.1$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

5A and 5B, the three of them show a positive and significant effect of the *variable salary diversity* on the firm's performance. Thus, also in this case, no matter the type of measure used for the firm's performance, the *variable salary diversity* seems to be a relevant aspect impacting on it.

As far as control variables are concerned, the outcomes of all the models are all aligned when these variables are significant. The variable *number of board meetings*, when significant, is always negatively related to the dependent variable. This outcome in aligned with previous studies affirming that a higher number of board meeting is synonymous of board inefficiency (e.g. Al Matari et al. 2014; Vafeas 1999). The *leverage ratio* control variable is always negatively related to the dependent variable, indicating that the higher the amount of debt compared to the equity, the lower the performance, aligned with previous literature (Tarigan et al. 2018; Terjesen et al. 2016). The *size* variable results negatively related to the dependent variable and this can be due to the so called scaling effect stated in the literature, a phenomenon usually occurring in large firms (La France Associates 2006; Magnanelli et al. 2016). The *listing year* control variable results positively related to the firm, indicating that the higher the number of years the firm has been on the market, the better its performance. This relation finds breeding ground in the deeper knowledge financial markets have of the firm if it is "old" in the financial market.

5.5 Robustness Checks

In order to ensure the reliability of the results, some additional analyses and tests have been conducted.

First, the models referred to the single diversity indexes analyses were run also excluding the control variables. Overall, the outcomes confirm the results presented in the previous paragraph.

Second, we included the firm age as control variable, as well as the 26 industry dummy variables as fixed effects rather than random as in the main analysis, to check if relevant findings come out. The results were aligned with the ones described above, but the significance of the models was lower due to the high number of independent and control variables.

Third, all models were fitted including the lagged independent variables as linear predictor, to check for potential lag in the effects of the board characteristics/diversities on the firm performance. No relevant differences were highlighted. The explanation to these findings can be

explained looking at the trend of the diversity indexes during the analysed time horizon and shown in paragraph 5.3. As described before, the majority of the diversity indexes do not change significantly over time, thus the board composition remains pretty stable with respect to the set of considered characteristics. This implies that even though the performance is lagged of one year, the composition of the board in terms of characteristics does not change.

Note

1. The Global Industry Classification Standard (GICS) was created in 1999 by MSCI and Standard & Poor's for use by the global financial community. It is an industry taxonomy. The GICS structure presents 11 sectors, 24 industry groups, 69 industries, and 158 sub-industries into all major public companies are categorized by Standard & Poor's.

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CHAPTER 6

Concluding Remarks and Future Research Agenda

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Abstract This chapter summarizes the most relevant outcomes of this work, discussing the main contributions for both researchers and policymakers. The chapter also highlights the limitation of this volume and provides some suggestions for opening up a research agenda for further investigation on the board diversity topic.

Keywords Board diversity · Firm performance · Corporate governance · Stakeholder theory

6.1 Discussion on Theoretical and Managerial Implications

The board diversity has been largely discussed by practitioners and scholars in recent decades with refer to its effects on several firm's aspects, but no convergent empirical findings have been achieved yet. Thus, unveiling the relationship between board diversity and firm's performance remains an open debate. This book has attempted to develop an overarching conceptual framework to first explore the board diversity and, then, to investigate the relationship between board diversity and firm's performance also from an empirical point of view. In doing so, a review of the

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existing contributes on the boards of directors and on board diversity was proposed.

As a result, this volume enriches the literature on the boardrooms diversity topic, on the one hand, proposing a systematization of the main contributes offered by international scholars and, on the other hand, filling a gap referred to the empirical investigation. With specific regard to this latter point, the work, through a longitudinal data set on a sample of European companies, analyses twelve diversity dimensions, both individually and jointly, looking at the possible joint effects on the firm's performance. Additionally, the firm's performance is estimated through three different measures, providing a deep insight of the impacts of the boardroom diversity on it. More in depth, the authors aimed to take into considerations both accounting- and market-based indicators, namely the Tobin's Q, the ROE, and the ROA. It is particularly relevant because it allowed to highlight the differences in studying the same phenomenon under more perspectives. In fact, results have shown different outcomes when the manner, in which the dependent variable has been measured, changed. In particular, findings clearly pointed out that when the firm's performance is measured with the Tobin's Q, several diversity dimensions present a significant relation, while no results are found for the same diversity dimensions when the performance is measured through an accounting-based variable, like ROE or ROA. This evidence can be interpreted as a positive judgement coming from the financial markets on the presence of diversity in boardrooms, even though the actual book performance registers a less enthusiastic effect. In fact, adopting the accounting-based indicators, with the exception of the diversity related to the variable remuneration, there is only a marginal significance for the tenure, the gender, and the executive diversity.

This conclusion is consistent with the example previously drawn about the effect of the market reaction to the composition of the Facebook company board, occurred when the Facebook IPO took place. Thus, in sum, aligned with previous researches focused on the firm value (Campbell and Mínguez-Vera 2008; Carter et al. 2003; Erhardt et al. 2003; Magnanelli et al. 2020), this book supports the idea that the financial markets encourage firms to adopt heterogeneous boards, awarding them with a higher evaluation. In fact, since the empirical analysis shows the absence of any negative relations with the firm performance when all the dimensions of diversity are considered all together, a high diversity in BoDs can be assumed as a driver of a good corporate governance practice.

In fact, greater diversity in boardroom can give an added value to the firm through a more effective governance, resource management, and decision-making process (Li and Wahid 2018; Hambrick et al. 1996; Carver 2002; Burke 2000). Diversity should enhance board effectiveness by bringing a broader assortment of perspectives, knowledge, and skills to carry on matters of company performance and outcomes, strategy and corporate risk. Aligned with this idea, in fact, Mattis (2000) sustains that a low board diversity reduces the critical thinking and the innovation in the board. The key for having good results is the right mix of diversity together with the way in which it is managed.

Additionally, another relevant conclusion relies on the dynamic process of the performance. In fact, findings showed that the firm's performance has a time-dependent behaviour, that should be always considered in analyses involving the board characteristics and the firm performance also to avoid or at least limit the endogeneity problem.

6.2 Implications for Policy Marker

The study conducted is relevant for policymakers considering the spreading amount of countries that are emanating regulations and recommendations for firms asking to adopt criteria that enhance the board diversity. Even though legislators worldwide are concentrating the attention mainly on the gender diversity, financial markets and stakeholders are paying an increasing attention towards all firm's internal policies aimed to protect and represent minorities in their governing bodies, above all, the BoD. In other words, some stakeholders, like investors and customers, show a growing interest in networking with companies adopting codes of conduct showing acceptance and openness concerning the hiring of people, directors included, that present heterogeneous characteristics.

Thus, as a consequence, policymakers should care more and more in the next future about the formal protection of these minorities as a driver to assure more balanced boardrooms. Among all the possible diversity dimensions, on the one hand, legislators should provide the legal framework for implementing effectively diversity in BoDs, on the other hand, firms should be able to select those diversity dimensions which contribute the most to boost their performance and value. In turn, the growth of the market value of the firms, adopting good governance practices, translates in a general wealth growth both for financial markets and local communities in force of the spillover effects generated. In fact, in line

with the assumptions of the stakeholders theory (Freeman 1984; Evan and Freeman 1988; Freeman 1994), it is relevant to point out that a firm cannot be considered a single entity, because it belongs to an environment and operates cooperating and interacting with other players. Thus, when a firm performance well, all the subjects connected to it can take advantage from this new wealth: investors and banks register positive returns from their investments, clients obtain products and services in line with their needs, employees can enjoy a pleasant work environment and the local community report economic and occupational growth.

6.3 Limitations and Future Research Agenda

The present work presents some limitations mainly due to vastity of the topic that can be addressed by further researches. A first limitation can be found in the largeness of the sample. The sample, in fact, is composed by a limited set of companies (209) due to the necessary hand-collection of some of the data referred to the directors' features. Further studies could enhance the dimension of the sample.

An additional limitation can be found in the treatment of the ethnicity diversity. Being a sensitive data, it was not possible to get the ethnicity from the curricula of the directors. Thus, the nationality was used as proxy of ethnicity. However, the authors are aware of the fact that the nationality does not always coincide with the ethnicity of a person.

Same issue occurred for the religion. It was not possible to include and analyse the religion diversity, being an unavailable data. The credo of a religion could actually affect the way of thinking and, as a consequence, type of decisions that a person could take. Thus, further research could also focus on this peculiar aspect.

A final limitation that has to be pointed out relies on the fact that when investigating on people, there are also psychological aspects that cannot be measured. People are different because they are different human beings and thus also their personal behaviour and personality impact the way they operate, and they work.

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