



# Women Do it Better: An Investigation on the Association between Gender Diversity In Board of Directors and the Financial Performance

Matteo Rossi<sup>1\*</sup>, Serena Galasso<sup>2</sup>, Arturo Capasso<sup>3</sup>

<sup>1</sup>University of Sannio, Italy, <sup>2</sup>University of Sannio, Italy, <sup>3</sup>University of Sannio, Italy. \*Email: [mrossi@unisannio.it](mailto:mrossi@unisannio.it)

## ABSTRACT

The aim of this study is to analyse the impact of gender diversity on the financial performance of Italian listed companies. A cross-sectional regression used about the data of the year 2016 of Italian listed firms. The study is a mix of descriptive and explanatory research. The model is a scoring model, composed by two variables: Board of Directors (BoD), and Top Management (TM). We investigate the impact of these variables on the Return on Equity, the Price book value, and the EBITDA. The study shows a positive relationship between financial performance and the composition of the BoD and the operational performance and the composition of the Top management. The cross sectional regression highlights also the non-relation on the Return on Equity. Anyway these contrasting results confirm the properness of the model for this kind of research.

**Keywords:** Gender Diversity, Financial Performance, Borad of Directors, Italian Listed Companies

**JEL Classifications:** G32, M14, G30

## 1. INTRODUCTION

Recently, in the global economy, corporate governance has changed from a primary focus on the expectations of venture capital transferors and the related economic responsibility to a full consideration of all social actors from which the company takes on complex responsibilities. Business growth involves the protection of all interests relating to the company; the effective performance of corporate governance requires the careful evaluation of affordability and social sustainability. When considering the application of corporate governance principles, the relevant actors are as follows:

- Shareholders,
- External environment,
- Supervisory body,
- Management, and
- Board of directors.

Managers are the focal point of corporate governance, and organizational outcomes reflect the principles and cognitive bases of dominant actors in the organization ((Hambrick and Mason, 1984; Rossi et al., 2015; Salloum et al., 2015).

Corporate governance theory provides a link between gender diversity in top management and firm performance (Dang and Nguyen, 2014). The lack of female participation in top management was recently regulated by the European Union Commission (EUC). The EUC supports the presence of women in top management positions; 40% of all board seats must be filled with the gender minority by no later than 2020 (Reding, 2013). From an economic point of view, questions include how women contribute to a company's success and whether the employment of women in top management positions repays the organization.

The optimal use of the talents of women will boost firm performance. To move in this direction, the leaders of businesses today must act with courage and steady commitment (Wittenberg-Cox and Alison, 2008). To improve equality, in 2011, the Italian Parliament approved Law 120 (the Golfo-Mosca Law), which requires gender quotas for Italian listed companies; at least 30% of seats on the board of directors must be filled by the less represented gender.

It will be interesting to examine whether such a policy passes the market test and whether the financial market encourages this legal provision.

On these bases, we developed a study to investigate the relation between the presence of women in corporate governance and firm performance. This paper is structured as follows. After the introduction, the next section presents an extensive literature review on the relationship between gender diversity and performance. In the second section, we define the research methodology, variables and data. Subsequently, we present the main results of the study. Finally, we present the research conclusions and managerial implications.

## 2. LITERATURE REVIEW

The term stereotype is a word of Greek origin formed from (stereos), “rigid”, and (typos), “model” (Ksieniewicz, 2008). Gender stereotypes are mental and cultural constructs shared by the company that describe the features of men and women (Gorman, 2005). These have a strong influence in modern society and characterize the gender issue in companies.

With the intake of female directors, companies can take advantage of the benefits from the link with stakeholders; however, the issue of legitimacy is mentioned in the literature on gender diversity. Directors on corporate boards can provide a valid form of legitimacy in the eyes of current and potential employees; directors also symbolize career opportunities to potential recruits (Hillman et al., 2007).

Such enterprises show that attention to the issue of diversity leads to better governance and a better use of talent, with positive repercussions on reputation and performance. In support of diversity, there is the idea that diversity may increase board independence. Diversity in a team can stimulate creativity and innovation and efficient problem-solving, as well as increase effective leadership. However, an increase in the diversity of a team can also produce more conflicts, more difficulties and a slower decision-making process (Adams and Ferreira, 2009). As described above, we find different arguments regarding gender issues within a company and what these arguments imply. Gender is a non-typical resource and, especially, a feature of human resources. We can therefore have different organizational outcomes and financial performance, as analyzed in the previous literature.

### 2.1. Gender Diversity - Organizational Performances

One branch of academic research examines the connection between the presence of women on boards and good governance practices in organizations. A homogeneous administration is unable to reflect the society in which it operates and is a symbol of weak corporate governance, that is, unable to utilize opportunities (Brammer et al., 2007). Diversity in corporate governance is the heterogeneous composition of a board of directors and the combination of different qualities, characteristics and expertise in relation to decision-making and other activities of the council. Gender is one of the features covered in the study of diversity (Van Der Walt and Ingle, 2003). The presence of women on boards to improve governance highlights the question of what good corporate

governance should pursue. The question of diversification is connected to the study of governance objectives concerning the performance of the organization. Other aspects under consideration include the relationship with stakeholders (Donaldson and Davis, 1991), resource dependency theory (Pfeffer and Salancik, 1978), diversity as a measure of independence in agency theory (Jensen and Meckling, 1976), and diversity as a necessity for fair and transparent decision-making (Luoma and Goodstein, 1999). These researchers have examined how boards use diversity as a tool to connect and how they determine which gender diversity organizational characteristics are more valuable (Hillman et al., 2007). The interest in topics such as gender originates from a series of factors related to the requirements of the proper management of human resources; at the same time, it has a connection with reality by considering the qualitative aspects of the lives of workers. However, the management of diversity and the isolation of gender have only recently become a major subject of organizational interest (Certo and Certo, 2013). Gender diversity theory was developed in the 1990s, inspired by currents of feminist thought seeking to theorize and reshape certain assumptions that had been overlooked or only recently emphasized. In this regard, the theory of gendered organizations was introduced in 1990 by Acker (1990). Beyond a gender-diversity program, a company should diversify leadership behaviors and spread good practices inside the organization, assessing its needs against its critical challenges and strategy. A company should consider the value added by women working at all levels and in managerial areas and identify ways to properly express their expertise in the organization and in formal roles (Britton, 2000).

The challenge is to build an organizational culture that is attentive to the appreciation of differences to enable a growth path. The outcomes of team diversity are dependent on different tasks, such as the proper mix of team members and the firm culture. An organizational culture that attempts to implement diversity can use the gender gap to increase and improve firm performance (Richard and Chadwick, 2013).

### 2.2. Gender Diversity - Financial Performance

The literature includes several studies (Nielsen and Huse, 2010; Cook and Glass, 2014) that examine the impact of women on the Board of Director BoD and the financial performance of a firm. These studies suggest that the presence of women in the boardroom can improve the financial performance of a company.

In the larger body of literature examining the relationship between female board representation and firm performance, the empirical evidence is decidedly mixed. Some studies suggest that female directors add value, finding that firms with more female directors tend to generate higher returns on assets (Nguyen and Faff, 2012; Singh et al., 2001) and elicit positive stock market reactions (Campbell and Vera, 2010). Conversely, other studies suggest that female directors decrease firm performance, finding that firms with more female directors experience lower accounting returns (Darmadi, 2010.) and an overall loss of value for stockholders (Bøhren and Strøm, 2010.) Further muddying the waters, several studies conclude that female board representation is unrelated to firm performance (Carter et al., 2010).

McKinsey (2007) proves how diversity translates into organizational performance dimensions. The analysis established a correlation between corporate performance and the proportion of women in management positions and demonstrated that companies with significant female presence in management, on average, scored higher in organizational performance than companies with no women in senior positions (McKinsey, 2007).

The abovementioned study supports the claim that gender equality in the composition of corporate governance is critical to business success. The positive relationship between gender balance and the economic performance of a company, in terms of profitability and increased shareholder value in financial markets, is supported by “McKinsey (2007)” to specify which study is being discussed. In companies with at least one woman in governance, the average ROE was 16%, higher than in companies without women (12%). Furthermore, average income increased, on average, by 14% in companies with women, compared to 10% in companies without women; the debt-to-equity ratio was slightly lower in companies with women compared with companies without women; the ratio of the value of stock market shares to equity was, on average, higher than 1/3 (McKinsey, 2007). New research makes it increasingly clear that companies with more diverse workforces perform better financially.

Based on these statements, we believe:

H1: There is a positive relationship between ROE and women on the BoD.

The latest edition of “Diversity Matters”, prepared by McKinsey and Company (2015) examined 366 companies and showed a statistical correlation between gender diversity and financial performance. For example, the companies, which are positioned in the first quarter based on gender diversity, have, on average, a 15% higher chance of generating profit than the national average of the sector. The same finding was also detected at the leadership level, with greater diversity leading to improved financial results. However, in this case, there is only a correlation if the diversity, in terms of gender, exceeds the threshold of 22%. Beyond this level, for every 10% increase in the number of women, there was an increase of 0.3% in the EBIT margin.

“The CS 3000 Gender” report by Credit Suisse (2016) shows that companies with more women in leadership obtain better returns and outperform in the stock market. A more diverse group can make better decisions and achieve better business performance.

The report scans more than 3,000 companies worldwide to examine the relationship between the representation of women and performance. We will focus on companies with more than 50% of women in top management in microfinance institutions and businesses concerned with venture capital. The report also examines the much-discussed concept of the “queen bee” syndrome, in which women who can overcome the glass ceiling tend to exclude other women from climbing, instead preferring to surround themselves with men. The CSG 3000 disputes this idea; instead, the result reached by researchers indicates that female CEOs tend to surround themselves with other women, increasing the presence of women in

senior roles. Female CEOs are 50% more likely than male CEOs to have female CFOs and 55% more likely to have women running the business units. Based on the data, the higher the percentage of women in top management is, the greater the excess returns for shareholders and the higher the stock market performance. Companies with 25% of top management positions comprised of women outperform the annual growth rate (CAGR) by 2.8%, while companies with 33% and over 50% of top management positions comprised of women outperform the CAGR by 4.7% and 10.3%, respectively.

Based on these statements, we believe:

H2a: There is a positive relationship between EBIT and women on the BoD

H2b: There is a positive relationship between EBIT and Top Management

Furthermore, the market is willing to pay a 19% premium price to invest in companies with a female CEO. These companies also show a return on equity (ROE) that is 19% higher, on average, and show a 9% higher dividend payout (Credit Suisse, 2016).

The effects of diversity are seen not only in financial performance but also in other key aspects of corporate performance (Hunt et al., 2015):

- Win the war for talent,
- Strengthen customer orientation,
- Increase customer satisfaction,
- Improve decision-making, and
- Enhance the corporate image.

Based on these statements, we believe:

H3a: There is a positive relationship between PB/V and women on the BoD

H3b: There is a positive relationship between PB/V and women in Top Management

Beginning with the examined literature, the aim of this study was to examine the relation between gender presence and financial performance in Italian listed firms.

### 3. METHODOLOGY

The majority of studies that examine the shares impact focus on the effect of women on company value and financial measures, as well as their relation to the increase in women on the board of directors. However, in the case of policies that support women in the business world, we must consider the potential benefits and the profitability measures of the company.

This research focused on the Italian context for two main reasons:

Gender diversity is a key topic in Italy because there is minimal female participation in the workforce,

The goal to increase female participation has been the subject of intense political debate in Italy.

We will verify whether increasing the participation of women is possible in Italy to offer new evidence on the relationship between the empowerment of women and company performance.

The model used is the regression analysis, which examines the linear relationship between explanatory variables (independent or predictors) and standard variables (Adams and Ferreira, 2004). The target is to examine the effect of the independent variables as a function of the theory represented and to find a combination of these variables to predict our statistical results in an optimal way.

Based on the hypothesis regarding the rate of participation of women on the board of directors and in top management positions in the analyzed company, we regress the economic-financial results of the companies.

The equation linking X with Y is:

$$Y = \alpha + \beta x$$

Where,

$\alpha$  = Intercepts or the point in which the straight line crosses the ordinate axis

$\beta$  = Angular coefficient or inclination of the straight regression line of Y on X.

The choice of regression model is justified on the same basis as the model, which assumes that the relationship between the variables is not perfect (Fox, 1997):

1. It could be a relation that is not strictly linear.
2. Important predictors can be skipped.
3. The variable measurements may have errors.

Since it is impossible to hypothesize a deterministic link, we add a new error variable; thus, our straight line is:

$$Y = \alpha + \beta X + \varepsilon$$

Where  $\varepsilon$  = error variable or deviation of the observer score from the theory score.

Thus, we examine the possible existence of a relation between the variable Y and the economics and financial operative results of the companies (ROE, EBITDA, PRICE/BOOK VALUE) considering the presence of women in decision-making positions (board of directors, top management).

The study assumes a linear regression model using a stepwise procedure.

### 3.1. Variables

The outcomes are represented by variables normally used in the literature regarding company performance. For research purposes, the relationship research included that on economic and financial production and operations. The central index of our analysis includes ROE, price/book value and EBITDA.

The price/book value is the relation between the market share price and the capital value of the company that comes from the budget for shares. The calculation of P/B is obtained as follows:

$$P/B = \text{Market price per share} / \text{Book value per share}$$

This information tells us whether the shares are undervalued or overvalued. The accounting value provides us with a relatively stable and intuitive measure of the value to compare with the market price. Moreover, the price/book value provides us with a clear sign of the reputation values, considering that the express information is information on the potential of the company that being analyzed.

The P/BV is an indicator that includes market attendance provides an indication of future profitability, taking into account the aspect not linked to typical management, as well as the reputational aspect and intangible values such as brand equity and the feelings of stakeholders regarding the business.

The return on equity is a profitability index of equity-a rate index according to which the net income produced is compared to the net income of a company. The ROE is an indicator that expresses company profitability linked to its typical activity and takes a photo of the real situation of the company:

$$ROE = (\text{Net Income} / \text{Shareholder Equity}) * 100$$

Gross operating margins show the gross result of the ordinary management of the company and, thus, the profits without costs and without considering financial charges, depreciation and taxes. This index, also identified as EBITDA, is useful to compare results from different organizations. Because of its rapid approximation of cash flow values, it can be used to determine the real value of a company; thus, to determine the operative value of a company, one should begin with the gross profit without charges, depreciation and taxes:

$$EBITDA = \text{Net Profit} + \text{Interest} + \text{Taxes} + \text{Depreciation} + \text{Amortization}$$

$$EBITDA \text{ Margin} = EBITDA / \text{Revenue}$$

The data used in this study come from the Italian Stock Exchange database and from the specific company annual reports, referring to the last data made available by the companies themselves (Gavin, 2011).

The variables we consider endogenous to the analysis model examine the presence of women in top management positions that include making operative and strategic decisions.

Regarding the BoD, the analysis considers boardrooms as the place where the management of public companies occurs. Legislation provides the board of directors with a significant amount of management power. The directors have a large influence on management, proposing and checking actions, deciding on remuneration, and managing strategic choices and other non-delegable decisions. Often, the most important managers are also members of the board, including the president, CEO or general director. The variable used in the model represents the presence of women on the entire board of directors.

Top management is the representative body of the highest managers who are responsible for the trend of the entire company. One of the

jobs of top management is to make decisions regarding the members of the organization, and top management is entirely responsible for the success or failure of the company (Denis and Denis, 1995).

### 3.2. Secondary Data

In Italy, corporate governance is characterized by a high concentration of ownership and by the important role of family-controlled firms. Company ownership is often managed by the founders or their heirs (Barontini and Bozzi, 2011); as many authors have noted (Gordini, 2016), Italian family businesses represent the foundation of the entire economic system of the country.

Individual subjects or non-financial private investors control more than 50% of the share capital of Italian listed companies, whereas in the rest of Europe, the same type of investors hold approximately 30% (Belcredi and Enriques, 2014). This statistic means that at least two out of every three companies are family-controlled. With an average of 51% of the share capital, their intention of investors is to secure not only economic power but also decision-making ability other major investors in Italy are the state and other publicly controlled bodies (Belcredi and Enriques 2014).

Family businesses are characterized by conservative strategic decisions and risk-averse operations (Anderson et al., 2011). Other situations are typical in family companies, such as agency problems in which managers act solely to protect the dominant shareholders and do not take care of the interests of minority shareholders (Bianco et al., 2015). Attempting to address such problems and conflicts and modernize the corporate governance of companies, Italy has adopted a series of reforms to strengthen boards and their supervisory role.

In Italy, board candidates often come from a network of first owners or from a network of “old boys”, whose members share knowledge, social values and ways of doing things (Rose, 2007). New entrants have to satisfy the expectations of this network, demonstrating that their ways of doing things are not questioned by those who now monitor the boardrooms of the company and the new entry (Gordini et al., 2017).

In recent years, gender equality has become an important issue in the Italian political agenda, leading to the introduction of Law 120/2011. Women traditionally have held very few business seats, and the market for executives and managers in Italy functioned this way until 2011; in that year, following the need to align with other European countries, the Italian Parliament approved Law 120/2011 to establish gender quotas for Italian listed companies (Bianco et al., 2015).

Italy is in fourth place-after Norway, France and Sweden-in the world for the number of women on company boards, with a 30.8% share; this is the effect of the Golfo-Mosca Law<sup>1</sup>. Data compiled

<sup>1</sup> The law has a duration equal to the renewal of three terms for a total of nine years. This period of time was enough to lead a social change. However, it is probable that when the law expires, the percentages may change from current levels, because an increase in women on the board is not likely to increase the number of women in the top management levels of the company. Thus, this law will face difficulty in increasing the number of women in management positions.

through financial market analysis support this argument. Currently, 29.75% of the members of the board of directors are women. This statistic is certainly significant considering that before the Golfo-Mosca Law was enacted, only 7.4% of the members of the board of directors were women. However, Baroni (2015) suggests that this figure is simply a reflection of a well-executed task. Apart from company boards, the percentages regarding the company leaders of listed companies tell a different story: 93.94% are men, meaning that women continue to be a minority (6%) in corporate nerve centers (Figure 1).

### 3.3. Sample

To determine the existence of a relation between the economic and financial results of companies and the presence of women in decision-making positions, we built a new dataset that includes characteristics and results of a random sample of 154 companies listed on the Italian Stock Exchange.

The fundamental data of our analysis were obtained from business documents available on the Italian Stock Exchange website, from analysis on IISole24Ore and from official financial statements shared on the websites of each company.

## 4. MAIN RESULTS

### 4.1. Roe Variable Regression

The first step is the analysis of a statistical relation between the presence of women on the BoD and the return on equity of the company. Using a stepwise selection method, one variable is considered in the model. Considering the p-value linked to the F statistic calculated in the analysis table of variance ANOVA and considering the significance level selected as 10%, the information reported by the explicative variables is not significantly better than the results of the average of the dependent variable alone. Therefore, this analysis does not provide significant results; rather, this finding supports the consulted literature (Terjesen et al., 2009; Rose, 2007).

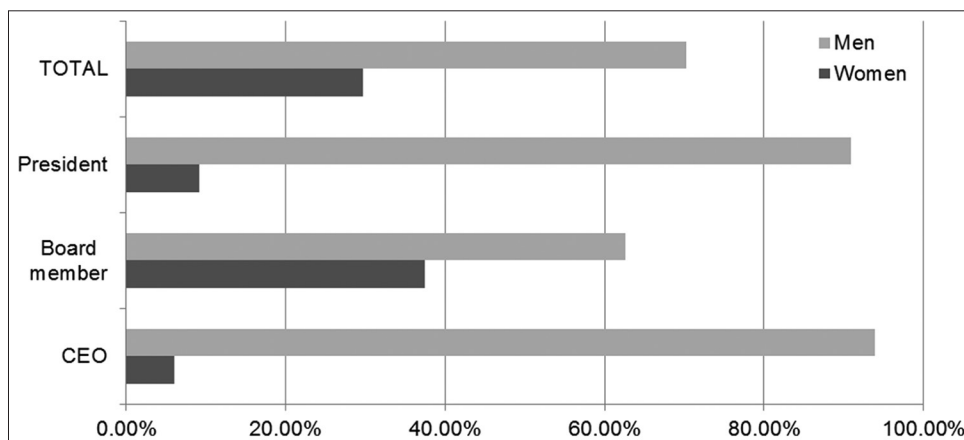
ROE and gender diversity management, from a statistical point of view, are not linked. This finding aligns with that of Adams and Ferreira (2009), who indicated that there is no causal relationship between greater gender diversity and improved profit; instead, the nomination of women to the board is a clear indication that a company is already doing well (Table 1).

For this reason, we reject H1.

### 4.2. Price/Book Value Regression

In the stepwise regression analysis of the variable PB value, two variables have been preserved in the model: The percentage of women on the board and the percentage of woman in top management. Because the error for the top management variable exceeds the conventional error of 5%, it could affect the obtained results. In other words, the percentage of women in top management has some effect on the index but not in a direct or strong way (Tables 2 and 3).

For this reason, we reject H3.b.

**Figure 1:** Women and men presence in the italian listed firms

Source: Authors' calculation

After this analysis, we focus on the explicative variable of the percentage of women on the board. The dependent variable PRICE/BOOK VALUE is explained by the explicative variable. Considering the p-value associated with statistic F and considering the significance level of 10%, the information for the explicative variable is significantly better than the results from the dependent variable average alone.

The analysis confirms what we have previously supposed: There is a relation between companies that performed better financially and the presence of the women on the BoD.

We obtained a regression line:

$$P/\text{book value} = 0,490930713397787 + 5,21784139475758 * \% \text{BoD}$$

At the end of our analysis, we can affirm with an error margin equal to 0.0004, lower than the 0.05 margin conventionally accepted, that an increase of 1% in women on the board corresponds to growth in financial performance, confirmed by the same growth of P/BV of 5.21 (Tables 4 and 5, Figure 1).

Therefore, by increasing the presence of women on the board, the financial profits of companies will increase. The findings suggest a better share performance of companies who increase the representation of women on the board. In the Italian market, our analysis confirms what has been suggested in European and American markets as a positive sign sent to the market by the nomination of more women: First, increasing the percentage of women on the board is a marker of a good trend in the company (Adams and Ferreira 2009). Second, companies with a significant percentage of women on their board of directors attain stronger financial performance and have a better capability to attract financial capital.

A higher price/book value is a signal of investors' expectations for a company; they believe that the organization has a value higher than its net assets. This ideal situation is explained in companies and organizations in which women are represented in top decision-making positions. Companies with a healthy percentage of women represented on the board of directors have obviously paid attention to the Golfo-Mosca Law. The diverse management value that

these companies have created internally also creates a perception of higher value for investors and improves financial expectations regarding share price.

Indeed, the P/BV is an index that reflects the expectations of financial performance by investors and shareholders outside of the company. They can only obtain certain types of available information, including the composition of the board of directors.

For these reasons, we confirm H3.a.

### 4.3. EBITDA Analysis

By using the linear regression model with a stepwise selection method, two variables are kept in the model. The dependent variable EBITDA is explained by two explanatory variables: Women on the BoD and the presence of women in top management.

Considering the p-value associated with the F statistic calculated in the analysis of the variance table and a conventionally accepted significance level of 10%, the information from the explanatory variables is significantly better than the result from only the mean of the dependent variable. We can therefore say, with respective errors of  $\varepsilon = 0.03$  and  $0.09$ , both lower than the conventionally accepted  $\varepsilon < 0.1$ , that the presence of female quotas on the board or in top management roles has a positive influence on the operating results of companies listed on the Italian Stock Exchange.

The analysis confirms what we previously assumed: There is evidence that companies with more women in leadership positions have more satisfactory operating results than those with fewer women in leadership positions. The analysis establishes that an increase of 1% of women on the board is reflected as a 0.36 improvement in operating margin Table 7.

For this reason, we accept H2.a.

Furthermore, the analysis also establishes that an increase of 1% of women in managerial positions increases our benchmark of 0.14 Table 8.

For this reason, we accept H2.b.

We have a regression line:

$$\text{EBITDA}=2,44111452392664\text{E-}02+0,365837934861944*\% \text{BoD}+0,142970362843514*\text{T.M}$$

The combined effect of the two variables can be explained in reality by the two connected bodies; the board of directors establishes corporate strategies regarding the selection of managerial operational bodies. The presence of women on the board definitely brings potential changes to management style (Bertrand et al., 2008).

Researchers have also found an inclination toward a stakeholder-oriented, rather than a shareholder-oriented approach, and a reduction in the mass layoffs of workers (Andriolo and Viassone, 2017). The increase in female presence in top positions and corporate governance is particularly important for the likely overall effect on women in leadership, thanks to increased female role models, improved prospects for career women and the cultural change that significant numbers of women leaders can bring. The fact that the top management of all analyzed firms influences the operating margin also supports our thesis. The EBITDA helps to understand what a company derives from its core business, which management often underestimates because it is constantly focused on improving the financial outlook of the company; when women are represented in higher percentages, previously undervalued situations actually become more “traditional”.

## 5. CONCLUSION AND MANAGERIAL IMPLICATIONS

Women do it better in the corporate governance of listed Italian firms. In fact, companies with more women on their boards work better. This is what this paper-in accord with agency rating consulting-attempted to demonstrate.

These conclusions are based on new knowledge that women are an undervalued resource in the workforce that has been excluded from decision-making roles inside business organizations. Women offer different points of view, strategies and leadership styles than traditional male styles.

From this perspective, women can improve consciousness in companies and create empathy within the workforce, creating a positive environment and gaining the trust of external investors.

The theoretical arguments regarding women were not strong enough to launch improvements within economic organizations, hampered by the glass ceiling effect, which is an invisible glass barrier that prevents women from rising to the most important positions inside companies.

Thus, European Parliament decided to address this issue within society and large companies, creating directives that encouraged all European countries to increase the presence of women on boards of directors, initially to 30% and then to 40% by 2020.

Numerous theoretical and empirical studies have examined the relation between financial performance and governance tasks in both European and global companies.

Although the results are not always positive and consistent, one strong and persistent finding in many studies is the positive relation between the economic index and the presence of women on the board of directors.

This analysis aims to demonstrate-in the Italian stock market-what was found in other stock exchanges: The presence of women is not a gender question but rather a smart business decision about the non-utilization of an economic resource.

Italian listed companies remain strongly influenced by the family business model. The founder family of the founder still holds the majority, and the top management of many companies includes intricate systems of “old-boy” networks that share knowledge, procedures and ideas.

From this perspective, Italian companies began at a disadvantage compared to other European countries. Before the quota law, the presence of women on boards was less than 10%, and the few women present in the companies were often connected with the controlling family. There existed no merit system to identify women as potential resources for companies.

Despite its starting point, Italy is now in fourth place in Europe for the number of women on boards, with an average of approximately 30%. This increase is the direct result of specific legislative provisions and is supported by the change of awareness and social understanding of the phenomenon. Therefore, our study analyzes the benefits for companies that have decided to be virtuous.

The analyzed sample includes 154 companies listed in the Italian Stock Exchange and the variables of interest concerning income (ROE), financial (price/book value) and operating (EBITDA) indicators. The endogenous variables concern the presence of women in key roles in corporate governance, including board members, auditors and top managers. The results demonstrate that there is a link between the presence of women and firm performance (both operative and financial); however, the link is not true, per se, but rather depends on the position covered by women and the index analyzed.

The finding of the model is a relationship between P/BV and the board of directors, EBITDA and top management and the board of directors. Businesses that are conscious about diversity and that implement good corporate governance practices surely send a positive signal to the markets, which respond by increasing their expectations regarding the future actions of the company.

An increase in the P/BV reflects an improvement in the expectations of external investors. The relationship to an increase in the presence of women indicates that investors consider the consciousness of those businesses in terms of accountability and ethics in addressing an important social problem but also consider the strategic value.

The board of directors is the corporate body that creates long-term business strategies by defining not only the objectives but also the choice of operating entities. The board appoints and dismisses managers, oversees their performance, establishes remuneration and makes strategic choices and decisions that cannot be delegated.

Another finding concerns the relationship between EBITDA and women on the board combined with the female presence in top management. In this case, we have an operating result connecting with operating figures. Top management turns the policies formulated by the board into objectives, strategies and projects through a shared vision of the future. The characteristics of female managers emerge as winning factors that produce better results.

In this study, we sought to demonstrate that the representation of both sexes is not a gender issue, but rather a matter of business in every respect. Law 120/2011 pushed Italian companies to introduce this new resource into their businesses.

Clearly, it would be appropriate for companies to maintain this trend by improving knowledge of the phenomenon with the help of the media and political and social institutions. In addition, although the presence of women on boards of directors has increased in recent years aided by the introduction of the law, the presence of women in top management remains very low or even absent because this area is not regulated by law.

Our model analyzes only the Italian market and considers only the gender variable. To further analyze the financial impacts on organizations, the study could be extended using different samples divided by sectors or in countries with different governance structures and cultural backgrounds.

In addition, it would be relevant to analyze the roles of women on the board of directors and their connection to the founder family.

## 6. AUTHOR'S CONTRIBUTION

The article is the result of the common reflection of all the authors. In the editing phase, the gender diversity and financial performance: A literature review (§2.2), variables (§3.1), main results (§4), conclusions and managerial implications (§5) sections were written by Matteo Rossi; the literature review (§2), gender diversity and organizational performances (§2.1), secondary data (§3.2) sections were written by Serena Galasso; the introduction (§1) and the sample (§3.3) sections were written by Arturo Capasso whereas the Methodology (§3) section was written by all the authors.

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## APPENDIXS

### Appendix Tables

**Table 1: ROE analysis**

	Model (ROE)			
	Value	Standard error	T	Pr > t
Intercept	-0.044	0.045	-0.966	0.336
BoD	0.000	0.000		
Top	0.167	0.196	0.850	0.396

Source: Authors' calculations. BoD: Board of directors. ROE: Return on equity

**Table 2: Price/book value analysis**

No. di variable	Variables	Variable IN/OUT	Statistics
1	%BoD	%BoD	IN
2	&BoD & Top	Top	IN

Source: Authors' calculations. BoD: Board of directors

**Table 3: Board of Directors and Top Management**

	Value	Standard error	t	Pr > t
Intercept	0.526	0.472	1.113	0.267
BoD	5.356	1.472	3.640	0.000
Top	0.507	0.744	0.681	0.497

Source: Authors' calculations

**Table 4: Correlation matrix**

	% BoD	P/book value
&BoD	1	0.278
P/book value	0.278	1

Source: Authors' calculations

**Table 5: Model (P/book value)**

	Value	Standard error	t	Pr > t
Intercept	0.491	0.467	1.052	0.294
% BoD	5.218	1.461	3.571	0.000

Source: Authors' calculations. BoD: Board of directors

**Table 7: EBITDA analysis**

No. di variables	Variables	IN/OUT	Statistics
1	% BoD	% BoD	IN
2	%BoD7Top	top	IN

Source: Authors' calculations. BoD: Board of directors

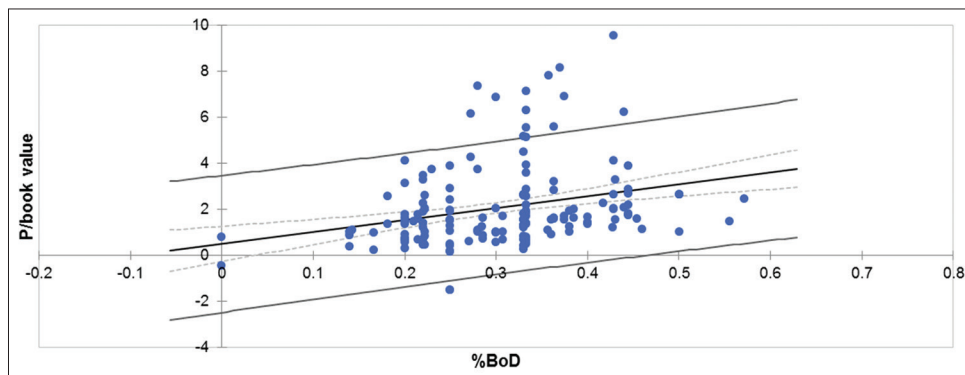
**Table 8: Model EBITDA**

	Value	Standard error	t	Pr > t
Intercept	0.024	0.054	0.454	0.651
% BoD	0.366	0.168	2.182	0.031
Top	0.143	0.085	1.685	0.094

Source: Authors' calculations. BoD: Board of directors

### Appendix Figure

**Figure 1: Regression analysis P/BV and BoD**



Source: Authors' calculations