Women's participation on boards of directors: the effects on business growth and profitability

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Abstract

Purpose of the paper: *This study investigates the relationship between female presence in the BoD (Board of Directors), business growth and profitability.*

Methodology*: Our sample includes 309 listed companies located in the north of Italy. The analysis uses two different measures to quantify the effects of female presence: growth and profitability. Independent variables are measured both in terms of the presence (or absence) of women in the BoD and in terms of female percentage in the composition of the BoD.*

Findings*: The sole presence of women reduces the companies' growth (i.e. token effect), while in terms of profitability the presence isn't statistically relevant. The percentage of female composition of the BoD has a positive impact both in terms of growth and profitability, suggesting the interpretation given by the theory of critical mass.*

Research limit: *The work assesses the contribution of gender diversity on business growth and profitability through variables that measure female presence and gender composition on BoD, but it doesn't consider underlying mechanisms or other factors characterizing the BoD.*

Practical implications: *Our findings suggest a greater awareness of gender differences in order to develop decision-making characteristics and processes that are useful in increasing business performance, and more generally in the company life.*

Originality of the paper: *This study deepens the gender role in a firm, highlighting the link between female presence in BoD, business growth and profitability, by analyzing token effect and critical mass.*

Key words: gender; critical mass; token; profitability; growth

1. Introduction

Gender equality within companies has not yet been achieved (OECD, 2018). The global economic forum measures the gender gap every year according to four dimensions: economic participation and opportunities, education, health and survival and political empowerment (World Economic Forum, 2017). All these factors are expressed through the Gender Gap Index. Globally, the gender gap is 68% and has in any case widened. There are several parameters that business organizations should consider when evaluating gender gap and each of them provides a measure of the current state of a company: retribution, recruitment, retention, advancement and representation. Among them an important factor contributing to gender equality is the free access to managerial positions, the top management team and the Board of Director (BoD), which women could be denied. Women must have higher education than their male counterparts to reach high-ranking positions (Pema and Mehay, 2010) and women face higher skill thresholds for promotion. Furthermore, Kato *et al.* (2016) argue that companies apply a different promotion policy to men and women, revealing the prospects of promotion only to high-capacity women, as they choose to work long hours to signal their commitment to work and receive managerial training.

The significant changes concerning the status of women in the social sphere, interpersonal relationships and the business world are topics addressed by several disciplines, including social sciences and managerial studies (Eriksson-Zetterquist and Styhre, 2008). Gender studies provide an interpretation of social reality based on the *way in which individuals are perceived, considered and treated, in each social sphere, precisely because of being male or female* (Donati, 1997; Vinci, 1999). The differences between women and men in the business environment are also linked to the wider issue of gender difference. The scarce presence of women at the business top, especially on the BoD and at the management of a company's activity, indicates not only the lack of quotas, but also the absence within organizations of their competence, attitudes, traits and behaviours that characterize women compared to the male counterpart. Gender parity is fundamental to whether and how economies and societies flourish. It is of great importance on the growth, competitiveness and future-readiness of economies and businesses worldwide.

For this reason, we examine the issue of gender role in decision-making, with the purpose to demonstrate the potential benefits of the female presence on business growth and profitability.

2. Women on boards of directors and the creation of value

2.1 More women on Boards of Directors help to increase performance

The question about how women in leader position can create value for the organization is a very debated topic among researchers. The contribution to value creation goes beyond the sole factor of financial performance. Researchers have in fact highlighted many kinds of benefits such as higher levels of innovation and corporate social responsibility, and a better linkage with stakeholders (see e.g. Zenou *et al.*, 2016).

In line with resource dependency view companies need to have access to critical resources to improve their performance (Pfeffer, 1972). The integration of more women on BoD can bring stakeholders with different contacts and can help organisation to acquire critical resources (Goodstein *et al.*, 1994). Strategic decisions may be promoted by different perspectives. Women's views can produce a different interpretation of the marketplace by increasing the organization's capability to penetrate markets and can improve the understanding of the complexities of the environment (Carter *et al.*, 2003).

Miller and del Carmen Triana (2009) argue that female contribution to business performance is brought by different cognitive frames, knowledge and perspectives and may help improve the firm's ability to generate profits from its assets and investments. This permits the boards to reach better decisions that can bring higher performance and business value.

In line with the agency theory prospective, the inclusion of women on BoD can improve the quality of control activity due to gender differences and in terms of female risk aversion (Post and Byron, 2015). Several recent studies demonstrate that women are more sensitive to risk when they make strategic decision (Sabatier, 2015). A possible factor that influences this choice is the *glass cliff*, a phenomenon through which women are more likely then man to serve in a precarious management position (Ryan and Haslam, 2007). Women seem more suited to direct companies in crisis situations, as they can help them to move from a *glass cliff* position to a safer status. Female managers have better preparation and higher knowhow for analysing risky situations in order to overcome the *glass cliff*. Female leaders have also different educational and professional paths than male directors, as they are often more skilled (Hillman and Cannella, 2007) and they are inclined to adopt long-term strategies (Eckel and Grossman,2008).

2.2 Factors influencing gender performance

Gender-based performance is explained mostly by: the critical mass, the existence of horizontal segregation, the influence of each business sector and the result of women's specific personal characteristics (Aldás-Manzano and Martinez-Fuentes, 2012).

Torchia and Calabrò (2015) find that a critical mass of women in BoD is required to have a contribution on organizational performance by leveraging their knowledge and know-how, so in this way the impact is more pronounced. In addition, Konard *et al.*, (2008) identify a critical mass in three or more women on BoD to have a positive contribution for a good governance.

Horizontal segregation is a term used to indicate women in the top-level operating in a narrower typology of industries, when compared to men. Coleman (2005) affirms that more than four over five companies led by female go to sectors that generally have lower growth rates than other industries, partly because they are labor-intensive and because they are characterised by high competition (Humphreys and McClung, 1981). Thus, the greater presence of female management and entrepreneurship in these low-growth industries may explain their underperformance compared to male-owned and male-managed companies (Losocco *et al.* 1991). Fasci and Valdez (1998) recommend, in order to conduct adequate research on gender performance, to make studies focusing on an industry rather than on business. For example, the smaller size and service sector of women-owned businesses can help to partly explain their underperformance compared to male counterparts. Coleman (2007) argues that low-growth companies come primarily from the service industry and are less likely to have loans. To complete the analysis, it's necessary to consider how female entrepreneurs start their businesses (Watson, 2002). Often, women at the top level start their business with less financial capital, typically one third invested by their male counterparts (Carter and Rosa, 1998) and the effects have repercussions on company performance.

Other causes could be sexual stereotyping and discrimination and/or women's lack of personal assets. Personal characteristics are often used to justify gender differences in management, considering that some female personality traits would explain their performance. For example, women are generally considered less secure and therefore less innovative. Regarding social capital, men have greater network advantages, more confidence in relationships and greater reciprocity. Male are in a better position to manage networking more effectively (Aldrich, 1989; Riding and Swift, 1990), even though women are more involved in networking in quantitative terms (Greve and Salaff, 2003). Men experience more development challenges related to the task, while women experience more development challenges arising from the obstacles they face in their work (Ohlott *et al.*, 1994; Winter-Ebmer and Zweimuller, 1997; Jones and Makepease, 1996).

2.3 The effects of women on BoD on business growth and profitability

Past studies provide mixing results in analysing the effect of female presence in BoD on the growth and profitability of a firm (Table 1).

Tab. 1: Summary of the main empirical findings of gender effects on firm performance

Author	Year	Country/Stock market	Gender effects on performance
Carter *et al.*	2003	Fortune 1000	+
Erhart	2003	Fortune 500	+
Bonn	2004	Japan and Australia	+
Farell and Hersh	2005	Fortune 500 and Service 500	+/-
Rose	2007	Denmark	/
Campbell and Minguez-Vera	2008	Spain	+
Adams and Ferreira	2009	United States	-
Galbreath	2011	Australia	+
Olsen	2013	Norway	/
Vu	2013	Vietnam	/
Liu *et al.*	2014	China	+
Low *et al.*	2015	Hong Kong, South Korea, Malaysia and Singapore	+
Garcia-Meca *et al.*	2015	Nine different Countries	+
Post and Byron	2015	International meta-analysis	+
Vafaei	2015	Australia	+
Amore and Garofalo	2016	United States	+
Pasaribus	2017	London Stock Exchange	/

Source: our elaboration

Literature presents many studies that demonstrate the positive correlation between female leadership and financial performance (e.g.

revenues growth, return on equity, return on investment) (Garcia-Meca *et al.*, 2015; Amore and Garofalo, 2016). Carter *et al.* (2003) argue that there is a significant positive correlation between the presence of women on the BoD and firm performance. Campbell and Minguez-Vera (2008) and, lately, Post and Byron (2015) show that having more women on BoD bring a higher return on assets and a higher return on equity, and sometimes also a stronger stock market performance. Erhart *et al.* (2003) analyse the gender diversity of the boards of more than one hundred listed Fortune 500 companies and identify a significant positive correlation between female presence in BoD and their performance using return on assets and return on investment. Same results are reported by Campbell and Minguez-Vera (2008) for a sample of non-financial Spanish listed enterprises in the period 1995-2000. These findings consent the authors to affirm that Spanish investors do not penalize companies that intensify their number of female directors, but also that greater female presence is likely to produce economic improvements. Furthermore Bonn (2004) and Galbreath (2011), when analysing other European companies, show that the proportion of women in the top management team is positively associated with firm performance, represented by return on equity and market-to-book value ratio. Based on a sample of corporations from non-European countries, and in particular from Hong Kong, South Korea, Malaysia and Singapore, Low *et al.* (2015) assert that the growth in the number of female directors has a positive effect on company performance. Liu *et al.* (2014) and Vafaei *et al.* (2015) addressing the methodological flaws of the previous studies, respectively find a positive correlation between gender diversity of the BoD of the listed companies in China and Australia.

Other studies don't find any significative correlation between gender and performance and others report mixed results. Farell and Hersch (2005) study three hundred of the Fortune 500 and Service 500 companies and reach that firms characterised by a high return on assets register a high number of women directors, but their appointment has no significant influence on the firms' performance. Olsen *et al.* (2010) and Rose (2007) respectively analyse the impact of gender diversity in Norway and Denmark, concluding that there is no significant link between companies' performance and the presence of women on the BoD. Vu *et al.* (2013) find similar results for a sample of Vietnamese listed firms: the number of female directors has no significant impact on both return on asset and equity. Pasaribu (2017), after having controlled for endogeneity, has provided analogue results on a sample of non-financial companies listed on the London Stock Exchange in the period 2004-2012, concluding that the presence of female on BoD is positively correlated with financial services for small businesses but not for large ones. The motivation would be the excessive monitoring found in large companies with strong governance after appointing female directors, but also the flexibility that small businesses have in appointing women directors.

There are researchers, like Adams and Ferreira (2009), that notice a negative connection between gender diversity and performance (i.e. market-to-book value and return on assets). Adams and Ferreira (2009) raise methodological issues that can account for the positive association between gender diversity of the BoD and financial performance reported in the literature, in particular the endogeneity of gender diversity variables. They conclude that, for well-governed companies, introducing mandatory gender quotas could be harmful, as additional monitoring could be counterproductive, resulting in a negative impact on shareholders' value.

3. Hypotheses

3.1 Women and business growth

Researchers emphasise the benefits given by gender diversity and by having a differentiated management team. The literature has widely argued that organizations with female executives have accelerated their growth almost threefold compared to those with only male executives. Diversity, due to the dissimilar background, leads to more ideas and more perspectives. All this will benefit in terms of performance, creativity and innovation, having available new perspectives and advice on problem solving (Kanadli and Pingying, 2017).

The female style is less hierarchical, more communicative and collaborative when compared to men. Women in power are more democratic, more sensitive to the needs of others. They can resolve interpersonal conflicts, engaging in a more participative style. This leads to an improvement in the self-esteem of others, to a sharing of power and to an enhancement of other individuals. (Eagly *et al.*, 2003). Collaboration and participation are supported by horizontal communication, which creates team collaboration, equality and stronger relationships. Women also motivate more subordinates who are driven to enthusiastically participate in the growth of the company (Palmu and Joronen; 2009).

An important consequence of the female style is a reduced information asymmetry: everyone feels part of the company and the firm's mission can be easily realized. The best monitoring could influence the nature and dynamics of the decisions of the company board, and it could have positive effects on the information environment (Gul *et al.*, 2011). Burgess and Borgida (1999) claims that female leadership can represent a real change in the company strategic direction. In fact, thanks to greater communication and therefore a lower information asymmetry, companies can access the entire range of the available intellectual capital supporting the participation of all hierarchical levels. Corporate growth is therefore characterized by stronger internal ties, but also by better relations between the company and different groups of external stakeholders (Hillman *et al.* 2002): introducing gender diversity in the BoD allows more open government processes that confirms the incorporation of stakeholder interests. The stakeholder theory asserts that gender diversity and the incorporation of women on BoD and in management positions is an important indicator of a corporate social responsibility and a sign of a stakeholder-oriented firm (Ibrahim and Angelidis 1994; Oakley 2000; Webb 2004). Female leadership can help the company grow, not only by creating a better business atmosphere, but also by increasing and exploiting its potential.

Women feel that they must demonstrate more than the male counterpart, as subject to gender bias. For this reason, they tend to make safer decisions for the company, they are very courageous and determined, but above all they have a strong know-how. Furthermore, it seems that the ability of women to make the best decisions emerges when approaching a deadline or after a very stressful event (Vermoesen *et al.*, 2013). The female way of perceiving resources and problems is wider, and it is typical for women to see the relationships between different things and therefore to have a clearer and wider vision. Intuition plays a role in this progress and the entity is discovered more rapidly (Adams and Ferreira, 2009).

For all these reasons, the business growth in presence of a female leader is motivated by what is called *feminine leadership advantage*: women emerge and excel in the creation of consensus, cooperation and charism in relationships when compared to board composed only by men. All these qualities are typically feminine and are believed to be more effective in contemporary organizations (Eagly and Carli, 2003). Consequently, BoD with women would reflect the capacity to growth more when compared to board only composed by men. Accordingly, we expect that:

HP1: The presence of a woman in the BoD increases the company's growth.

3.2 Women and business profitability

As previously stated, some studies associate gender diversity with positive economic performance (Campbell and Mínguez-Vera 2008), whereas other studies show a negative relation (Guest, 2009), but there are also researchers that find no relation between both variables (Rose, 2007).

Researchers who are part of the first current of thought, argue that women can provide better input strategies and different perspectives, generating more productive programs (Bilimora, 2000). The increased productivity and profitability are also because women, by not showing excessive safety by nature (Lundeberg *et al.*, 1994), apply higher standards in their decision-making process (Pan, Sparks, 2012). Women present a higher risk aversion, having a greater attention to supervision and control. Therefore, men are more motivated to take action, while women are more conservative. This apparent prudence underlies the fact that a woman wants to reduce the risk of labelling and the potential loss of reputation, so she is more reluctant to manipulate gains: she knows that the slightest error could cost her reputation (Gul *et al.*, 2011).

Given greater conservatism, risk aversion and high sensitivity to ethical issues, the company's commitment to gender diversity could also be perceived as an aspect of the quality of corporate governance practices and corporate disclosure (Brammer *et al.*, 2009), and women are more likely to be involved in improving the quality of financial reporting in order to maintain its reputation. Therefore, all this leads to improving the company's image with stakeholders, as the reputation of female directors is positively associated with all performance measures, given the better connection with stakeholders.

Despite the adoption of different risk strategies (Atkinson *et al.*, 2003), gender diversity of managers can be associated with the higher profitability of the company than the average (Erhardt *et al.*, 2003). Female leadership is process oriented, while men's leadership is goal oriented. Women tend to have better interpersonal skills and show greater reliability, having a more communicative and participatory style (Aaltio-Marjosola, 2001). This can improve decision-making processes by creating an atmosphere of greater communication and information, encouraging the team and the stakeholders to consider different perspectives (MacLeod and Heminway, 2007). This kind of style can contribute, above all in the long run, to the increase of the company's performance.

Based on the motivations, we can formulate the second hypothesis:

HP2: The presence of a woman in the BoD increases the company's profitability.

4. Empirical analysis

4.1 Data and sample

The empirical sample used to investigate the impact of women on BoD, on business growth and profitability, is made up of 309 Italian listed companies located in northern Italy and retrieved from the AIDA database.

The sample is mainly composed of small and medium businesses well distributed among all traditional sectors. Companies that open to the female figure are only 127 out of 309 and, among these the average presence is rather small. If we refer to the subgroup in which at least one woman takes part on the BoD, the class that counts the largest number of companies is 0-20%, which indicates that, as noted in literature, the presence of women in decision-making positions is still very low, if not zero. In this first segment, in fact, over 69% of the companies analysed are detected. A still too low number of companies (12,5%), count for a female participation between 20% and 40% and companies that belong to the percentage class between 40% and 60% are slightly less than 10%. Very few companies register levels of participation close to gender equality in the composition of the BoD and, even less, in those that count for a majority of female presence. Firms with a female composition of the BoD between 60% and 80% are only 1,7% and the companies with a board made up exclusively of women, are only 21 (7%). Finally, when considering the whole sample, the female presence in the role of CEO rises only to 7%, which growths to 24% if we refer to the subgroup in which at least one woman takes part on the BoD.

4.2 The models and the variables

The aim of the paper is to fill the gap found in the literature review regarding the relationship between the female presence in the BoD and the companies' growth and profitability. It is therefore a question of assessing whether women presence can make a significant contribution to these dynamics and, if so, to establish whether this is positive or negative. The following paragraphs describe the data source, as well as the dependent and independent variables, including control variables, used to develop an appropriate regression model with respect to the research objectives.

The linear regression models make it possible to determine the impact of gender variables, namely the female presence in BoD (Female_presence), the percentage of female composition of the BoD (Female_percentage) and the presence of a female CEO (Female_CEO), respectively on the business growth and profitability.

The two models can be summarized as follows:

MODEL 1:

Growth = ƒ (Female_presence; Female_percentage; Female_CEO; Control variables)

MODEL 2:

Profitability = ƒ (Female_presence; Female_percentage; Female_CEO; Control variables)

Dependent variables. The dependent variables are two, one for each of the two hypotheses: respectively (Growth) and (Profitability) that are expressed by sales growth and return on equity.

Independent variables. We measure the female presence in three ways. First, as a dummy variable indicating the female presence in BoD, second as a percentage of BOD composition and third as a dummy variable indicating the CEO gender. Female_presence assumes value 1 if at least one woman is on the BoD and 0 if the board is entirely made up of male figures. This variable has the purpose of ascertaining whether the sole female presence is enough to determine a positive or negative effect on corporate growth and/or profitability. A further variable (Female_percentage) verifies whether the increase of percentage of women in decision-making roles is decisive or not in terms of business growth and profitability. The last independent variable is the presence of a woman as CEO (Female_CEO), a dummy variable that assumes value 1 if CEO is woman, 0 otherwise.

Control variables. In accord with previous research, we controlled for basic firm-specific characteristics.

Firm size is a proxy for accumulated knowledge and managerial experience. Thus, we measured Dimension as the total sales. We controlled for Profitability, measured as the return on equity in Model 1 (Hanel and St-Pierre, 2002). Financial constraints can affect business growth and profitability, as they are interest expense related to short, medium or long-term debt. Finally, we included industry dummies as further controls because of the significant impact of the industry on the financial structure (Wallbott and Scherer, 1983; Villalonga and Amit, 2006) (Sector). Some authors do not agree with the statement that female-owned companies are less efficient due to the characteristics so far attributed to women. Some researchers argue, in fact, that the differences in the registration of growth and profitability is not a gender issue, but rather dependent on the type of sector and activity. Female businesses often operate in the services sector, in a less dynamic context, with lower revenues, limited growth prospects and lower employment rates (Singh *et al.*, 2001). The sectors in our analyses follow the Pavitt taxonomy.

Table 2 reports the definitions of both the dependent and independent variables that account for effects in the proposed empirical analyses.

Tab. 2: Definition and sources of the variables used in the empirical analysis

Variable	Definition	Source
Dependent variables		
Growth	Difference between sales in 2016 and 2017 (Euro)	AIDA
Profitability	Ratio between net income and equity capital, return on equity ROE (%)	AIDA
Female variables		
Female_presence	Dummy variable taking the value 1 if a company presents at least one woman in BoD, and 0 otherwise (.)	AIDA
Female_percentage	Percentage composition of female gender on the BoD (%)	AIDA
Female_CEO	Dummy variable taking the value 1 if there is a female CEO in the BoD, and 0 otherwise (.)	AIDA
Control variables		
Dimension	Total amount of revenues (Euro)	AIDA
Financial constraints	Interest expense related to short, medium or long-term debt (%)	AIDA
Profitability	Ratio between net income and equity capital, return on equity ROE (only in Model 1) (%)	AIDA
Sectors	Dummies variables taking value 1 when firms belong to a specific sector by Pavitt taxonomy, 0 otherwise (.)	AIDA

Source: our elaboration

4.3 Results of the empirical analysis

Data has been standardized in order to better interpret results. Table 3 shows the results on average, standard deviation, minimum and maximum relative to all the variables for the entire sample, subsequently divided according to whether women are present in BoD. A t-test is performed to evaluate the significance level of the variables for the two sub-samples. In the case of the first dependent variable (Growth), we register a higher average when there is no presence of women within the company. The opposite result is registered for the second dependent variable (Profitability), where the average is higher for companies that have the presence of women in BoD. It should be noted that these findings are not statistically significant. Although not significant, financial constraints present a higher average for companies in which there are no women. The only statistically significant difference in average is the dimension with a much higher average for companies with female presence.

Tab. 3: Descriptive statistics

	Whole sample [309]				Female presence [127]	Nonfemale presence [182]	
	Mean/%	Std. Dev.	Min.	Max.	Mean%	Mean/%	Sign.
Dependent variables							
Growth	0.01	0.11	-0.30	1.30	0.19	1.2	--
Profitability	0.01	0.93	-5.84	2.92	1.30	-0.56	--
Female presence variables							
Female_presence	0.41	0.49	0	1	--	--	--
Female_percentage	018	0.28	0	1	0.40	0	--
Female_CEO	0.12	0.33	0	1	--	--	--
Control variables							
Dimension	-0.04	1.01	-0.27	14.92	12.30	-15.73	***
Financial constraints	1.96	7.56	0.01	86.92	1.65	2.18	--
Sectors	Yes				Yes	Yes	

Source: our elaboration

The econometric results[1] are presented in Table 4 and show that only some of the female and traditional variables included as determinants for both models have an impact on business growth and profitability.

Tab. 4: Econometric results

	MODEL 1 Growth			MODEL 2 Profitability		
	Coeff.		Std err.	Coeff.		Std err.
Female presence variables						
Female_presence	-0.04	**	0.02	-0.19		0.16
Female_percentage	0.05	*	0.03	0.42	*	0.27
Female_CEO	-0.01		0.03	0.13		0.26
Control variables						
Dimension	0.05	***	0.01	0.03		0.05
Financial constraints	0.01		0.01	-0.02	**	0.01
Profitability	0.01		0.01	--		--
Sectors	Yes			yes		
Number of observations: 309						
	Prob>F = 0.00			Prob>F = 0.12		
	Pseudo R2 = 0.19			R-squared = 0.26		

*significant at the 10% level; **significant at the 5% level; ***significant at the 1% level

Source: our elaboration

The participation of women on the BoD impact negatively a firm's growth (Female_presence is negative and significant at p<0.05 in Model 1) while the increasing percentage of women at the top of the company impact positively (Female_percentage is positive and significant at p<0.10 in Model 1). The presence of women in the company as CEOs is negative,

[1] All the values of correlation between variables are lower than 0.9, the threshold indicated by Wooldridge (2003). Correlation matrix is available upon request.

albeit not significant in Model 1. These results suggest that the involvement of women in corporate governance can have a positive effect on growth, only when they reach a certain percentage. Therefore, the mere presence of a female in BoD is not enough to have positive effects on company growth. This result suggests a token effect and it is supported by the critical mass theory (Torchia and Calabrò, 2011), so that women must be at least three in order to make a strong and effective contribution. Analogue considerations come out from Model 2 on profitability. The effect on profitability is mainly determined by the percentage of women on the BoD (Female_percentage is positive and significant at $p<0.10$ in Model 2), despite the coefficient on the Female_presence variable being negative and not significant. Again, the presence of women in the company as CEOs is not significant. When women represent a very small minority on the BoD (i.e. one or two women), they are perceived as symbols, tokens and stereotypes. On the contrary, when women increase their presence in BoD, they become a consistent group capable of making their voices and ideas heard, and in a mediated way the companies can benefit from their presence in terms of profitability.

Having a critical mass of women in the BoD produces a winning factor in skills and experience with tangible benefits both for the functioning of the boards and then for growth and profitability.

The control variables also yield interesting results. The firm's size has a positive impact on growth (Dimension is positive and significant at $p<0.01$ in Model 1) while financial constrains limit the firm's profitability (Financial constraints is negative and significant at $p<0.05$ in Model 2). Sectors also have significant impact in both Model 1 and Model 2.

5. Concluding remarks

The paper tries to understand the role of the female presence in BoD and its impact in the company's growth and profitability. The need to investigate this topic arises as it is an important and extremely contemporary issue, and it has not yet reached a shared opinion. No evidence has been found to show that male leadership is better than female leadership, until now it has always been stereotypes linked to culture according to which men must occupy managerial positions (Judge and Piccolo, 2004). As shown in the previous chapters, the impact of female presence in the BoD is a very controversial topic among researchers, and it doesn't always lead to shared results. In the recent years, with the increase of the presence of women in business contexts, studying gender differences has become almost a necessity. Academics deal with understanding whether female presence could affect company growth and performance, highlighting the advantages, difficulties and characteristics of having women that own/manage a company.

The research carried out in the present paper highlights some important results. If on one hand the sole female presence does not have a positive impact on growth nor on performance as her opinions may not be relevant for the decision-making body, on the other hand the female percentage in BoD increase with company profitability and growth.

Heterogeneous BoD are better than homogeneous male dominated boards in terms of contribution. The size of the minority group of women directors requires attention: appointing only one woman as director would seem to be inexpedient since, as suggested by tokenism theories, they will be categorized, stereotyped and ignored by the majority group (of male directors). They must conform to the majority and are unable to make any contributions. Kanter (1977a, b) defined the members of most as dominant while labelled the rest minority members as tokens. In a group, token is perceived negatively, sometimes with real derision (Maass and Clark, 1984; Nemeth and Wachtler, 1983) and is often in doubt and not of trust. As a result, a woman can be considered as a token which creates discomfort, isolation and insecurity (Kanter,1977a, b), and then interferes with performance (Powell, 1993). Therefore, the influence of a minority in a group depends on strength, immediacy and the number of its members (Latane, 1981). This theory suggests that when the minority group reaches the critical mass, a qualitative change will take place in the group interaction.

The interpretation of our results can be supported by the critical mass theory. Studies have traditionally measured gender diversity simply through their presence on BoD (e.g. Campbell and Mínguez-Vera, 2008; Hillman and Cannella, 2007; Huse *et al.*, 2009). In this paper we argue that it is necessary to evaluate the number. Following Torchia and Calabrò (2011) we suggest that the contribution of women becomes evident when the critical mass is reached. In accordance, other studies suggest that three usually represents the point influencing the group setting (Bond, 2005; Nemeth, 1986; Tanford and Penrod, 1984). The core idea is that, with at least three women as directors, it is probable to rise the likelihood that women's voices and thoughts are caught and so boardroom dynamics can change substantially (Erkut *et al.*, 2008; Konrad *et al.*, 2008). However, it is important to note that Asch's (1951, 1955) demonstrates that the further increases in group size add little to the overall effect.

The present work suggests both managerial and policy implications. As far as the former are concerned, it would be opportune for the top management to become aware of the gender differences between male and female and that this should not be an obstacle, but a value added. An important step to put the female figure in a position to best express her potential, is the provision of measures to overcome the difficulties she faces in reconciling work and private life. A company policy can provide a valuable help and can reduce the obstacles that women encounter in undertaking a career, especially when this is within a decision-making body such as the BoD or even the company's leadership as CEO.

A fundamental contribution can be made also by public policies, in terms of support for real gender equality. A measure adopted in Italy is the law n. 120/2011, which provides the presence of at least one third of women within the BoD. This can be considered a first step to allow the female figure to express her own contribution within the strategic decision-making of companies although this should only be an incentive to change the corporate mentality and culture.

Finally, the study is not excepted from limitations. First, the contribution of women to the processes of growth is evaluated only through variables that measure the female presence and the percentage composition of gender on the BoD but does not contemplate other factors. For example, it might be important to consider the degree of education of the female component, since a director with a high educational qualification has a different influence on the actual possibilities of growth and profitability compared to the one with a lower qualification (Queiró, 2016). Moreover, other interesting aspects that can be considered are the level of experience and the age of the female figures, seeing these as factors capable of exerting impact on the firm's performance. Another limitation is that the sample is made up entirely of companies from northern Italy. The same study replicated on companies based in Countries characterised by different institutional and socio-cultural contexts could provide different results.

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