



## مجلة التجارة والتمويل

[/https://caf.journals.ekb.eg](https://caf.journals.ekb.eg)

كلية التجارة – جامعة طنطا

العدد : الاول

مارس ٢٠٢٢

**DOES WOMEN DIRECTORS INFLUENCE ON BOARD  
TASKS?  
USING THE CRITICAL MASS VIEW**

Dr:Bassam Samir Mohamed Baroma  
Associate professor, accounting department  
Faculty of commerce  
Tanta University

# **DOES WOMEN DIRECTORS INFLUENCE ON BOARD TASKS?**

## **USING THE CRITICAL MASS VIEW**

### **ABSTRACT**

In recent years the issue of women in corporate boards has gained extensive interest in practice as well as in the corporate governance literature. This paper adds to the existing debate focusing on the critical mass view in the investigation of women directors' contribution on board tasks. Previous studies debated that women's contribution on corporate boards would be better valued as their number increases; this study identifies that number in three or more women directors (critical mass). Basing on a sample of 213 Egyptian firms, we test hypotheses which relate to the critical mass of women directors (three or more women) to the board's strategic task, control task and service task. The results suggest that the critical mass (three or more women directors) is positively related to the board strategic task and negatively to the board service task, thus confirming that the critical mass view may contribute to a better understanding of board dynamics.

**Keywords:** women directors, critical mass, board tasks

## **1-INTRODUCTION**

The topic of women in corporate boards has internationally gained extensive interest in practice as well as in the corporate governance literature. Many authors have debated that women directors on corporate boards offer many contributions (Bilimoria 1995, Bilimoria 1997, Torchia, Calabrò et al. 2010, Torchia, Calabrò et al. 2011) as new ideas, more communication and transformation in the management style (Milliken and Martins 1996, Daily, Certo et al. 1999, Gilbert and Ivancevich 2000, Rosener 2011). However, few studies on corporate boards investigate the contribution that women make in the boardroom (Bilimoria 2000, Van der Walt and Ingley 2003, Burke and Mattis 2013), and whether a critical mass of women directors can make the difference on corporate board (Kramer, Konrad et al. 2006, Erkut, Kramer et al. 2008, Arena, Cirillo et al. 2015, Charles, Redor et al. 2015). Starting from this gap in the literature, the paper's contribution is to take into account critical mass theory (Kanter 1987, Greed 2000, Lortie-Lussier and Rinfret 2002, Bratton 2005, Kramer, Konrad et al. 2006, Erkut, Kramer et al. 2008, Sarah and Mona 2008, Watts

2009, Torchia, Calabrò et al. 2011) in the examination of the relationship between women directors and board tasks. The paper's research question is: what is the contribution of the critical mass of women directors (three or more women) on board tasks?

This paper will try to answer to this question examining an Egyptian sample of 213 firms, characterized by a relatively large board of directors (seven or more directors).

In correspondence with previous studies (Kramer, Konrad et al. 2006, Erkut, Kramer et al. 2008) the paper assumes that three or more women are the critical mass of women directors. Therefore, it investigates the relationship between women directors and the three main board tasks (strategic task, service task and control task) seeing cases in which there are three or more women directors and cases in which there are less than three women directors. The results suggest that there is a positive significantly relationship between the critical mass (three or more women directors) and the board strategic task, and a negative relationship with the board service task.

The paper is organized as follow: in the second section, it

develops the main features of critical mass theory highlighting its importance and challenges for the argument on women on corporate boards. Moreover, the paper presents the research model and the main hypotheses.

The third section shows the methods and database, including the use of a unique sample from Egypt. The results are presented in section four, and a discussion follows in section five. In the last section, the paper presents the final remarks and indications for future investigations.

## **2-CRITICAL MASS THEORY AND WOMEN DIRECTORS**

Many of previous studies are arguments about the need for more women in corporate boards. Some of those arguments focus on: the increased variety of opinions in the boardroom (Soares 2010); the need of more strategic input to the board (Bilimoria 2000, Burke and Mattis 2013); the influence on decision-making and leadership styles of the organization (Rosener 2011); the provision of woman role models and mentors (Joy 2008) ; women's capabilities and availability for director positions (Torchia, Calabrò et al. 2011); insufficient competent male directors (Burke 1999,

Dang, Nguyen et al. 2014) ; better boardroom behavior. Despite these arguments, the number of women on corporate boards around the world today is still small (Bilimoria and Piderit 1994, Conyon and Mallin 1997, Daily and Dalton 2003, Singh and Vinnicombe 2004, Ferreira 2010, Elstad and Ladegard 2012, O'Reilly and Main 2012, Mathisen, Ogaard et al. 2013) .

To better understanding the real involvement of women on boards of directors, there is a need of more theoretical and empirical studies on the topic. In respect of that, the paper builds on critical mass theory(Kanter 1987, Greed 2000, Lortie-Lussier and Rinfret 2002, Kramer, Konrad et al. 2006, Erkut, Kramer et al. 2008, Sarah and Mona 2008, Lewis and Simpson 2012) . This theory derives from nuclear physics. When it is applied to social science, its main contribution is to suggest that the nature of group interactions depends on size. In particular, shifting the size of a subgroup we also change the impact on the larger group, also, that impact becomes more obvious when the size of the subgroup reaches a certain thresholds, or a critical mass(Kramer, Konrad et al. 2006, Charles, Redor et al. 2015) . In particular when a certain thresholds

are reached the degree of a subgroup's influence grows.

The critical mass arguments may be useful in understanding the influence of women on corporate boards. In most researches about women directors the usual questions are: how many women are there? Are they able to express their personality, feelings, and behaviors?

We can argue based on the critical mass theory, that when women represent a minority subgroup within a larger group, its members will seek to adapt to their surroundings. Once that group reaches a certain size, the theory suggests that there will be a qualitative change in the nature of group interactions, as the minority of women starts to assert itself and thereby transforms the institutional culture, customs and values (Norris and Lovenduski 2001).

Kanter (1980), for example, analyses the experiences of women who form a small minorities in the corporate scopes. She observes that the relative numbers of socially and culturally different people in a group are critical in shaping interaction dynamics in group life.

To theorize these interactions she identifies four types of groups with different majority-minority ratios: (1) uniform, with no significant minority; (2) skewed, with a minority of perhaps up to 15 per cent; (3) tilted, with perhaps a 15-40 per cent minority; and (4) Balanced, perhaps with a minority of more than 40 per cent (Kanter 1980).

With an increase in relative numbers, minority members are potentially allies, can form a coalition and can affect the culture of the group. From these considerations, other scholars assumed the concept of “critical mass” (Greed 2000, Lortie-Lussier and Rinfret 2002, Kramer, Konrad et al. 2006, Sarah and Mona 2008).

Several scholars have applied Kanter’s work to the legislative and political setting.

Saint-Germain (1989), for example, found that significant gender differences in the introduction of traditional women’s interest measures were evident once the percentage of women reached approximately 15%. Cammisa and Reingold (2004) presented evidence that gender differences in the prioritizing of legislation involving women, children, and families were least marked in states with low percentages of women, and most evident in states

with high percentages of women. Grey (2002) found that women in politics were more actively involved in debates regarding feminist issues as they approached a critical mass of 15%.

Despite the evident appeal of critical mass theory and its spread application in legislative and political researches, there are few studies that use the critical mass theory to

explain the influence of women on board of directors (Kramer, Konrad et al. 2006, Erkut, Kramer et al. 2008). When there are applications of that theory to board of directors, an immediate reflection follows: which is the critical mass? Based on the above discussed studies, for the identification of the dimension of the subgroups we can use the minority/majority ratio. But arguing on board of directors, and in particular on women directors, we can use or the proportion of women directors on the total amount of board members (and then chose a percentage as critical mass, (e.g. more than 15% of women directors) or the number of women directors (e.g. three or more women is the critical mass).

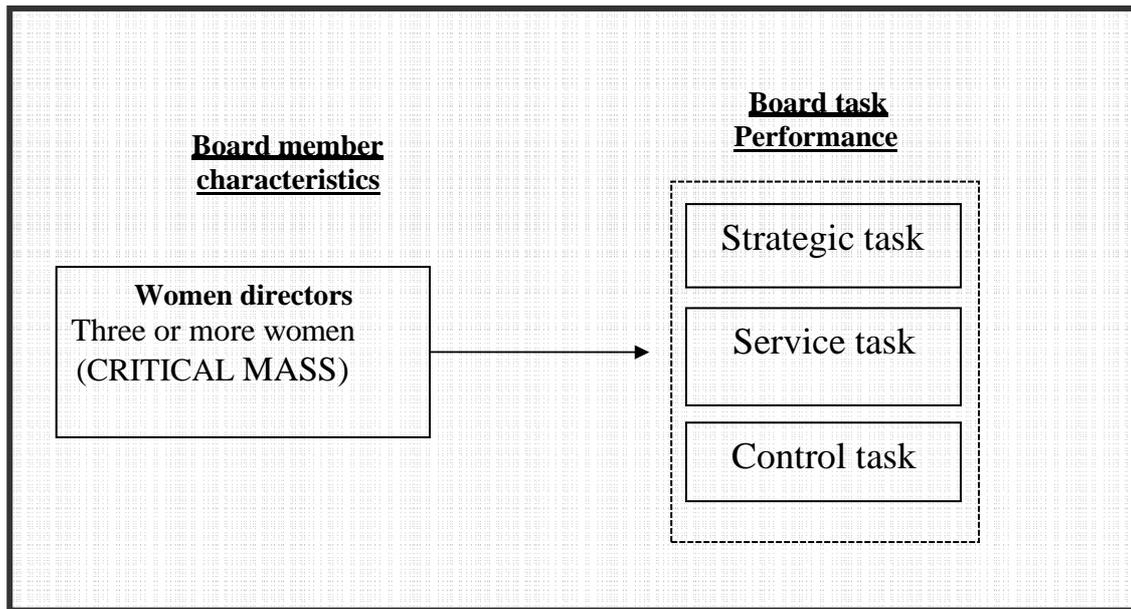
The study expects that in the setting of boards of directors, it may be more appropriate to use a number as a critical mass, rather than the percentage. Further, previous studies (Kramer, Konrad et al.

2006, Erkut, Kramer et al. 2008) on that topic suggested that having three or more women on board can create a critical mass where women are able to affect the content and process of board discussions substantially. Hence, defined that the critical mass is met when three or more women directors are present, the paper can study the impact of women directors' critical mass on board tasks.

Assuming that board tasks mediate the relationship between board member characteristics and firm level outcome (Tacheva and Huse 2006, Nielsen 2008), the study considers that boards including three or more women are different from boards including less than three women in term of participation in their tasks. Starting from the assumption that the influence of women directors on board tasks depends on their number, the study tests the direct relationship between critical mass (three or more women) and board strategic, service, and control tasks. These considerations are summarized in Figure 1.

**Figure 1 –**

**Research model**



***3-Board tasks***

One of the assumptions of this paper is that the board tasks mediate the relationship between board member characteristics and firm-level outcomes (Zahra and Pearce 1989, Forbes and Milliken 1999, Hillman and Dalziel 2003, Pillania, Ogbechie et al. 2009) . In the literature on boards of directors several studies have contributed to identify the different sets of tasks boards accomplish(Zahra and Pearce 1989, Stiles and Taylor 2001) . Board tasks usually are divided to strategic tasks, service tasks and

control tasks (Zahra and Pearce 1989, Stiles and Taylor 2001, Gabrielsson and Tukiainen 2008).

Board strategic involvement is widely recognized as one of the major tasks of the board (Zahra and Pearce 1989, Hillman and Dalziel 2003, Hendry and Kiel 2004, Brauer and Schmidt 2008, Gabrielsson and Tukiainen 2008).

Moreover, Board strategic involvement is a complex and multidimensional concept (Ravasi and Zattoni 2006) and several researches defined it in several ways (Zahra and Pearce 1989, Stiles and Taylor 2001, Schmidt and Brauer 2006, Ruigrok, Peck et al. 2007) . In spite of the numerous definitions of this concept, the paper adopts the definition that board strategic involvement is the degree to which the board and its members are involved in the strategy process. It requires board members to be involved in the initiation and implementation phases of the strategic process (Huse 2008). The study investigates the impact of the critical mass (three or more women directors) on board strategic task. It expects a positive relationship because previous

studies suggest that women are qualitatively oriented and men are quantitatively oriented (Buttner 2001).

Furthermore, the strategic tasks require qualitative skills in making proposals and decisions on long-term strategies and main goals and in controlling the follow-up of decisions.

Therefore, the paper expects that a critical mass of women directors will be positively related to the board strategic task. Following this reasoning, it formulates the first hypothesis:

***Hypothesis 1 – There is a positive relationship between the critical mass of women directors and the board strategic tasks.***

Board service tasks are related to the official level of the firm (Judge Jr and Zeithaml 1992, Fiegenger 2005). As indicated in the resource dependence theory (Pfeffer and Salancik 2003), the board may help to acquire critical resources. Really, the firms depend on their environments, and board members have an important role because they have access to important information and resources. According with previous study (Huse 2008), the paper focus on

aspects related on involvement in the resource dependence tasks, in advisory task and mentorship.

Male board members generally have more opportunities in contributing to service tasks than women directors. Therefore, boards with women may be less involved in the various service tasks. Thus, minority directors as women are less likely to be well connected in the managerial world (Westphal and Milton 2000, Zhu and Westphal 2014).

In that discussion, again the critical mass considerations help us in the hypothesis formulation. The paper assumes that the critical mass (three or more women directors) has effects on board service task. In particular, it expects that the critical mass will be negatively related to the board service task. Thus, the following hypothesis:

***Hypothesis 2 – There is a negative relationship between the critical mass of women directors and the board service tasks.***

Board control tasks derive from agency theory, which defines separation between the ownership and the control (Bianchi, Bianco et al. 2001, Ben-Amar and André 2006). Board should control the

actions of agents (managers) to look after the interests of principals (Ang, Cole et al. 2000, Hillman and Dalziel 2003) . The control tasks are multidimensional referring to various areas: quantitative and financial control, qualitative and behavioral control.

While previous studies focused on the qualitative and financial control tasks (Nielsen 2008), the paper focus is only on quantitative control. The quantitative control tasks imply the board's involvement in the evaluation of cost budgets; the evaluation of investments and capital expenditures; the evaluation of liquidity and payments; the evaluation of risk management and the firm being subject to proper control; and the evaluation of sales and marketing budgets (Huse 2008).

But, it is not common that women directors hold important and executive positions in a financial or an accounting function (Zelechowski and Bilimoria 2004, Virtanen 2012). So, it expects a negative relationship between women directors' critical mass and the board quantitative control tasks. Therefore, the study formulates the following hypothesis:

*Hypothesis 3 – There is a negative relationship between the critical mass of women directors and the board control tasks.*

#### **4-METHODS**

##### *4-1-Data collection and sample*

This study is based on a unique survey conducted among Egyptian companies during the year 2018. With an overall response rate of 33% for the CEOs, the paper selected 213 firms considering only those with a board size of more than seven (included) board members. Fourteen was chosen to be the maximum number of board members in the sample. A selection of firms with these size characteristics was needed because this allows us to use the critical mass theory in a proper way.

The Egyptian database was used for many reasons. Firstly, it provides more observations compared with similar studies based on the survey method. Second, in studies on women directors there are no significant surveys which try to focus on board dynamics and board members' characteristics. Moreover, the Egyptian one, with its construction, allows us to better understand what happens inside

the board of directors better analyzing aspects related to the board tasks.

The investigation of the critical mass of women directors led us to split the sample into two main groups. The first group includes board with less than three women directors (65%) and the second group includes board with three or more women directors (35%).

#### ***4-2- Measures***

Data related to dependent, independent and control variables were collected through the questionnaire survey.

**Dependent variables** – The dependent variables were measured using multiple items and a five-point Likert-scale measurement was used. The lowest value indicates strong disagreement, and the highest value indicates strong agreement. Using twelve multiple items, the study runs factor analysis to build three main board tasks. Then it used the Cronbach's alpha coefficient to report convergent validity.

***The board strategic tasks variable*** was measured using four multiple items. The four items loaded into a factor with an

Eigenvalue of 2.02 and Cronbach's alpha of 0.86.

*The board service tasks variable* was measured using four multiple items loaded into a factor with an Eigenvalue of 1.70 and a Cronbach's alpha of 0.84.

*The board control tasks variable* was measured using five multiple items, loaded into a factor with an Eigenvalue of 4.39 and a Cronbach's alpha of 0.8.

The three factors explain the 67.5% of the total variance. Table 1 provides a summary of the results of the factor analysis run to measure board tasks

**Table 1 – Factor analysis - Board Tasks**

Factor s	Factor Load s	Alph a	Eigenval ue
<b>Factor 1: Board Strategic Tasks</b>		<b>0.86</b>	<b>2.02</b>
The board have, with great authority, been involved in making proposals on long term strategies and main goals	<b>0.87</b>		
The board have, with great authority, been involved in making decisions on long term strategies and main goals	<b>0.90</b>		
The board have, with great authority, been involved in putting decisions on long term strategies and main goals into action	<b>0.70</b>		
The board have, with great authority, been involved in controlling the follow up of decisions on long term strategies and main goals into action	<b>0.73</b>		
<b>Factor 2: Board Service Tasks</b>		<b>0.84</b>	<b>1.70</b>
The board members contributes to building networks	<b>0.88</b>		
The board members contributes to lobbying and legitimation	<b>0.84</b>		
The company and board often take advantage of the board member's networks for advice	<b>0.85</b>		
<b>Factor 3: Board Control Tasks</b>		<b>0.81</b>	<b>4.39</b>
The board have, with great authority, been involved in evaluation of cost budgets	<b>0.81</b>		
The board have, with great authority, been involved in evaluation of company investments and capital consumption	<b>0.71</b>		
The board have, with great authority, been involved in evaluation of company liquidity and payments	<b>0.86</b>		

The board have, with great authority, been involved in evaluation of risk management and if the company is under assuring control	<b>0.6</b> <b>3</b>		
The board have, with great authority, been involved in evaluation of sales and marketing budgets	<b>0.6</b> <b>2</b>		

**Independent variables** - *Women directors* is a count variable for the number of woman board members. The study splits the sample into two groups. The first one including boards with less than three women directors, the second one including boards with three or more women directors (critical mass). So, it creates a dummy variable 0: less than three women directors; and, 1: critical mass (three or more women directors).

**Control variables** - the study used as control variables, measures frequently used in studies of boards of directors.

**Company size:** it measured as the number of company employees in year 2018, transformed into its natural logarithmic function.

**Board size:** *it* measured as the number of directors serving on the company board. The study also included the number of board members because the size of a board can affect tasks in both a

positive and negative manner.

**The *length of board meetings*:** it measured as the duration in hours of an ordinary board meeting transformed into its natural logarithmic function.

**The *number of board meetings*:** is a counting variable that shows how many board meetings with physical presence were held in year 2018, transformed into a natural logarithmic function.

**CEO tenure:** it measured in years and transformed into a natural logarithmic function.

**Board member diversity:** it measured using five multiple items indicating diversity of board members in terms of background, personality and age (Huse 2008). The five multiple items loaded into a factor with an Eigenvalue of 2.81 and a Cronbach's alpha of 0.89.

Finally, **director's knowledge and competencies:** it used as a control variable because we feel that it will influence board tasks. It was measured using six multiple items, loaded into a factor with an Eigenvalue of 3.44 and a Cronbach's alpha of 0.85.

### ***4-3- Multiple linear regressions***

Multiple linear regressions with enter method were used to test our hypotheses.

In the first model, the study included all the control variables. In the second model it entered together with the control variables our independent variable. The independent variable is a dummy variable that assume value 1 when in board with the critical mass (there or more women directors), 0 otherwise. The study used enters method to regress for each dependent variable (strategic, service and control tasks).

## **5- RESULTS**

The correlations of all variables are reported in table 2.

**Table 2**  
**Correlation matrix**

	Mean	Std. Dev.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Board strategic tasks	5.3	1.3	-										
Board service tasks	4.1	1.4	.29*	-									
Board control tasks	4.7	1.2	.37*	.21**	-								
Board size	7.9	1.1	.15*	-	.22**	-							
Company size	1231	3821.9	.07	-	.12	.35*	-						
Lenght board meeting	3.9	1.6	.29*	-	.20**	.32*	.25*	-					
Number board meeting	7.0	2.6	.18*	.18**	.01	.33*	.21*	.25*	-				
CEO tenure	6.5	5.8	.09	.01	.07	-	-.13	.01	.07	-			
Directors' knowledge and competencies	4.9	.9	.17*	.18**	.37**	.02	-.05	-.06	-	-	-		
Board members diversity	4.8	1.0	.27*	.25**	.25**	.02	.15*	.01	.07	-	.37**	-	
Critical mass of women directors	.3	.5	.15*	-	.02	.29*	.23*	.11	.26*	-	-.06	.14	-

\*\* Correlation is significant at the 0.01 level (2-tailed); \* Correlation is significant at the 0.05 level (2-tailed).

The correlation matrix illustrates that there was no significant correlation among variables. Results of the hypotheses testing are presented in table 3.

**Table 3– Multiple linear regressions**

Control and independent variables	Dependent variables: board tasks					
	<i>Strategic tasks</i>		<i>Service tasks</i>		<i>Control tasks</i>	
	Model I	Model II	Model I	Model II	Model I	Model II
1. Board size	-.15	-.05	-.05	.02	.22**	.22**
2. Firm size	.88	.87	-.13*	-.13*	-.09	-.09
3. Length of board meetings	.29***	.30***	-.33	-.36	.12	.12
4. Number of board meetings	.09	.07	.22**	.25***	-.94	-.92
5. CEO tenure	.10	.12*	-.01	-.01	.05	.05
6. Board member diversity	.18**	.15*	.14*	.17**	.04	.05
5. Directors' knowledge and competencies	.92	.10	.13*	.12	.30***	.30***
6. Critical mass of women directors (3 or more women)		.15**		-.22**		-.08
Adjusted R <sup>2</sup>	<b>.19</b>	<b>.20</b>	<b>.05</b>	<b>.10</b>	<b>.13</b>	<b>.13</b>
F	<b>7.2***</b>	<b>7.1***</b>	<b>2.8**</b>	<b>3.7**</b>	<b>5.4***</b>	<b>4.7***</b>

\*p<.10; \*\*p<.05; \*\*\*p<.01

Hypotheses 1 and 2 are supported suggesting the existence of a direct relationship between the critical mass (three or more women directors) and both the board strategic and service tasks. In particular the critical mass (three or more women directors) was found to be significantly and positively related to board strategic tasks (p<.05), and negatively and significantly related to board service tasks (p<.05). The Adjusted R<sup>2</sup> was .20 (Model II) with the

strategic tasks, and .10 (Model II) with the service tasks.

The results of multiple linear regressions suggest that it does not exist a direct relationship between the independent variable (critical mass of women directors) and board control tasks. Thus, Hypothesis 3 is not supported.

## **6- DISCUSSION**

The issue of women on corporate board is a central topic in the corporate governance field. However, several barriers exist for women in being elected as board members. Besides, a comparative difference between women and men in executive positions exist.

The results suggest that the importance to use the critical mass (three or more women directors) view in the corporate boards, leading us to a better understanding of the effects that the introduction of women in boards has on its tasks.

Moreover, the findings suggest the potentiality of the introduction of that theoretical approach in the corporate governance debate.

The study put into the model of the critical mass variable. Some important evidences rose.

Firstly, for what concerns the board strategic and service tasks, Hypotheses 1 and 2 stated that there is a significant relationship with the critical mass (three or more women directors). In other words, in boards with the critical mass (three or more women directors) women are able to influence in different ways the board strategic and service tasks.

The first important result is that the critical mass (three or more women directors) is positively and significantly related to the board strategic tasks. The positive influence of women directors is a result consistent with previous studies suggesting that women are more qualitatively oriented compared with men (Buttner 2001). The board contribution to the strategic process is considered to be an important factor leading the firm to obtain and retain a competitive advantage in the industry (Brauer and Schmidt 2008).

Strategic tasks require qualitative skills in making proposals and decisions on long-term strategies and main goals and in controlling the follow-up of decisions. Even if, for those theoretical explications, it is not surprising to find a positive relationship between women directors and board strategic tasks.

The main result of the paper is to show that this contribution is possible only if we take into account the critical mass argument. Really, if we consider boards in which the critical mass of women directors (three or more women) is not reached our findings suggest that they will not be able to accomplish in a proper way their strategic tasks, because of the lack of qualitative skills arising from a too homogeneous board.

Secondly, a negative and significant relationship was found between the critical mass and the board service tasks (Hypothesis 2 is supported). The result suggests avoiding reaching the critical number (three or more women directors) in relation to the service tasks because it can contribute in an unsuitable way to the board service task. That, also find justification in the literature on women on corporate board, indeed women directors have no significantly and good linkages to the environment and to the other firms compared to their male counterpart, so it will be more difficult for them to give resources and information to the board, then satisfying their service task (Westphal and Milton 2000).

Finally, the results suggest that there is not a direct

relationship between the critical mass of women directors and board control tasks. This result is probably explainable saying that gender looks not to be an influential variable on that task.

Moreover, women directors

often, are not involved in top functions as for example control task.

Though, if we consider other aspects of diversity (Goodstein, Gautam et al. 1994, Triana, Miller et al. 2014) not directly linked with the gender but referred to the competences and knowledge of board members (male and female), we will obtain more significant results for what concerns the definition of the women directors' critical mass. Thus it is not surprising that having three or more women directors is not related with the board control task.

## **7- CONCLUSIONS AND FUTURE RESEARCHES**

The purpose of this paper is to provide a better understanding of the influence of women directors on board tasks, considering the main challenges of the critical mass theory. The study reached to some interesting results:

Firstly, the critical mass theory can give more opportunity in the debate of women directors, understanding how that variable

works in boards effectively. The paper has included the critical mass in order to highlight its influence in the explanation of women director's contribution on the main board tasks, finding interesting relationships between the critical mass (three or more women directors) and the board strategic and service tasks. Furthermore, the critical mass theory contributes to the understanding of how women affect (positively and negatively) the board tasks.

Secondly, the paper has tried to define a sorting logic for the definition of the critical mass of women directors. In particular, it argues that three or more women directors are the critical mass, consistent with previous studies (Kramer, Konrad et al. 2006, Erkut, Kramer et al. 2008). The paper has also done reflections on the use of this concept on different types of board of directors. Certainly, board size seems to be an important element to take into account when we define the critical mass. In line with this, if we choose to use the critical mass theory, we have to know that probably it will be impossible to use that concept for all boards' types.

Obviously, boards with smaller size are logically excluded from the application of that concept. Future research directions may focus on which is the better way for identifying the critical mass, taking into account all the above mentioned aspects.

Finally, future research can take into account the differences in the backgrounds of women directors, in addition to differences in board members characteristics, thus identifying different competences, skills and personality respect to their male counterpart and also arguing if the concept of the critical mass (three or more women directors) can also give a contribution.

## References:

Ang, J. S., et al. (2000). "Agency costs and ownership structure." the Journal of Finance **55**(1): 81-106.

Arena, C., et al. (2015). "Women on board: evidence from a masculine industry." Corporate Governance.

Ben-Amar, W. and P. André (2006). "Separation of ownership from control and acquiring firm performance: The case of family ownership in Canada." Journal of Business Finance & Accounting **33**(3-4): 517-543.

Bianchi, M., et al. (2001). "Pyramidal groups and the separation between ownership and control in Italy."

Bilimoria, D. (1995). "Women directors: The quiet discrimination." Corporate Board **16**(93): 10-14.

Bilimoria, D. (1997). "A qualitative comparison of the boardroom experiences of US and Norwegian women corporate directors."

Bilimoria, D. (2000). Building the business case for women corporate directors. Women on corporate boards of directors, Springer: 25-40.

Bilimoria, D. and S. K. Piderit (1994). "Board committee membership: Effects of sex-based bias." Academy of management Journal **37**(6): 1453-1477.

Bratton, K. A. (2005). "Critical mass theory revisited: The behavior and success of token women in state legislatures." Politics & Gender **1**(1): 97-125.

Brauer, M. and S. L. Schmidt (2008). "Defining the strategic role of boards and measuring boards' effectiveness in strategy implementation." Corporate Governance: The international journal of business in society.

Burke, R. (1999). "Women on Canadian corporate boards of directors: getting the numbers right!" Corporate governance: An international review **7**(4): 374-378.

Burke, R. J. and M. C. Mattis (2013). Women on corporate boards of directors: International challenges and opportunities, Springer Science & Business Media.

Buttner, E. H. (2001). "Examining female entrepreneurs' management style: An application of a relational frame." Journal of Business Ethics **29**(3): 253-269.

Cammisa, A. M. and B. Reingold (2004). "Women in state legislatures and state legislative research: Beyond sameness and difference." State Politics & Policy Quarterly **4**(2): 181-210.

Charles, A., et al. (2015). "The determinants of the existence of a critical mass of women on boards: A discriminant analysis."

Canyon, M. J. and C. Mallin (1997). "Women in the boardroom: Evidence from large UK companies." Corporate governance: An international review **5**(3): 112-117.

Daily, C. M., et al. (1999). "A decade of corporate women: Some progress in the boardroom, none in the executive suite." Strategic Management Journal **20**(1): 93-100.

Daily, C. M. and D. R. Dalton (2003). "Women in the boardroom: A business imperative." Journal of Business strategy.

Dang, R., et al. (2014). "Does The Glass Ceiling Exist? A Longitudinal Study Of Womens Progress On French Corporate Boards." Journal of Applied Business Research (JABR) **30**(3): 909-916.

Elstad, B. and G. Ladegard (2012). "Women on corporate boards: key influencers or tokens?" Journal of Management & Governance **16**(4): 595-615.

Erkut, S., et al. (2008). "18. Critical mass: does the number of women on a corporate board make a difference."

Women on corporate boards of directors: International research and practice **222**.

Ferreira, D. (2010). "Board diversity." Corporate governance: A synthesis of theory, research, and practice **8**: 225.

Fiegener, M. K. (2005). "Determinants of board participation in the strategic decisions of small corporations." Entrepreneurship Theory and Practice **29**(5): 627-650.

Forbes, D. P. and F. J. Milliken (1999). "Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups." Academy of management review **24**(3): 489-505.

Gabrielsson, J. and T. Tukiainen (2008). "Boards, Governance, and Value Creation: The Human Side of Corporate Governance." Journal of Applied Management and Entrepreneurship **13**(2): 129.

Gilbert, J. A. and J. M. Ivancevich (2000). "Valuing diversity: A tale of two organizations." Academy of Management Perspectives **14**(1): 93-105.

Goodstein, J., et al. (1994). "The effects of board size and diversity on strategic change." Strategic Management Journal **15**(3): 241-250.

Greed, C. (2000). "Women in the construction professions: Achieving critical mass." Gender, Work & Organization

7(3): 181-196.

Grey, S. (2002). "Does size matter? Critical mass and New Zealand's Women MP."

Hendry, K. and G. C. Kiel (2004). "The role of the board in firm strategy: Integrating agency and organisational control perspectives." Corporate governance: An international review **12**(4): 500-520.

Hillman, A. J. and T. Dalziel (2003). "Boards of directors and firm performance: Integrating agency and resource dependence perspectives." Academy of management review **28**(3): 383-396.

Huse, M. (2008). Accountability and creating accountability: A framework for exploring behavioural perspectives of corporate governance. The value creating board, Routledge: 49-70.

Joy, L. (2008). "Women board directors in the United States: An eleven year retrospective." Women on corporate boards of directors: International research and practice: 15-23.

Judge Jr, W. Q. and C. P. Zeithaml (1992). "Institutional and strategic choice perspectives on board involvement in the strategic decision process." Academy of management Journal **35**(4): 766-794.

Kanter, R. (1980). "Women and tokenism in organizations: Some effects of proportions on group life." A sociological

reader on complex organizations: 461-476.

Kanter, R. M. (1987). "Men and women of the corporation revisited." Management Review **76**(3): 14.

Kramer, V. W., et al. (2006). Critical mass on corporate boards: Why three or more women enhance governance, Wellesley Centers for Women Wellesley, MA.

Lewis, P. and R. Simpson (2012). "Kanter revisited: Gender, power and (in) visibility." International Journal of Management Reviews **14**(2): 141-158.

Lortie-Lussier, M. and N. Rinfret (2002). "The Proportion of Women Managers: Where Is the Critical Mass? 1." Journal of Applied Social Psychology **32**(9): 1974-1991.

Mathisen, G. E., et al. (2013). "Women in the boardroom: how do female directors of corporate boards perceive boardroom dynamics?" Journal of Business Ethics **116**(1): 87-97.

Milliken, F. J. and L. L. Martins (1996). "Searching for common threads: Understanding the multiple effects of diversity in organizational groups." Academy of management review **21**(2): 402-433.

Nielsen, S. (2008). "22 Women directors, board working style and board task performance." The Value Creating

Board: Corporate Governance and Organizational Behaviour: 437.

Norris, P. and J. Lovenduski (2001). "Blair's babes: Critical mass theory, gender, and legislative life."

O'Reilly, C. A. and B. G. Main (2012). "Women in the boardroom: symbols or substance?"

Pfeffer, J. and G. R. Salancik (2003). The external control of organizations: A resource dependence perspective, Stanford University Press.

Pillania, R. K., et al. (2009). "Board characteristics and involvement in strategic decision making." Management Research News.

Ravasi, D. and A. Zattoni (2006). "Exploring the political side of board involvement in strategy: A study of mixed-ownership institutions." Journal of Management Studies **43**(8): 1671-1702.

Rosener, J. B. (2011). Ways women lead. Leadership, Gender, and Organization, Springer: 19-29.

Ruigrok, W., et al. (2007). "Nationality and gender diversity on Swiss corporate boards." Corporate governance: An international review **15**(4): 546-557.

Saint-Germain, M. A. (1989). "Does Their Difference Make a Difference? The Impact of Women on Public Policy in Arizona Legislature."

Sarah, C. and L. K. Mona (2008). "Critical mass theory and women's political representation." Political studies **56**(3): 725-736.

Schmidt, S. L. and M. Brauer (2006). "Strategic governance: How to assess board effectiveness in guiding strategy execution." Corporate governance: An international review **14**(1): 13-22.

Singh, V. and S. Vinnicombe (2004). "Why so few women directors in top UK boardrooms? Evidence and theoretical explanations." Corporate governance: An international review **12**(4): 479-488.

Soares, R. (2010). 2010 catalyst census: Fortune 500 women board directors, Catalyst New York.

Stiles, P. and B. Taylor (2001). Boards at Work—How Directors View their Roles and Responsibilities|| Oxford University Press, Oxford.

Stiles, P. and B. Taylor (2001). Boards at work: How directors view their roles and responsibilities: How directors view their roles and responsibilities, OUP Oxford.

Tacheva, S. and M. Huse (2006). Women directors and board task performance: mediating and moderating effects of board working style. European Academy of Management Conference.

Torchia, M., et al. (2011). "Women directors on corporate boards: From tokenism to critical mass." Journal of Business Ethics **102**(2): 299-317.

Torchia, M., et al. (2010). "Critical Mass Theory and Women Directors' Contribution to Board Strategic Tasks." Corporate Board: Role, Duties & Composition **6**(3).

Triana, M. d. C., et al. (2014). "The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change." Organization Science **25**(2): 609-632.

Van der Walt, N. and C. Ingley (2003). "Board dynamics and the influence of professional background, gender and ethnic diversity of directors." Corporate governance: An international review **11**(3): 218-234.

Virtanen, A. (2012). "Women on the boards of listed companies: Evidence from Finland." Journal of Management & Governance **16**(4): 571-593.

Watts, J. H. (2009). "Leaders of men: women 'managing' in construction." Work, employment and society **23**(3): 512-530.

Westphal, J. D. and L. P. Milton (2000). "How experience and network ties affect the influence of demographic minorities on corporate boards." Administrative science quarterly **45**(2): 366-398.

Zahra, S. A. and J. A. Pearce (1989). "Boards of directors and corporate financial performance: A review and integrative model." Journal of Management **15**(2): 291-334.

Zelechowski, D. D. and D. Bilimoria (2004). "Characteristics of women and men corporate inside directors in the US." Corporate governance: An international review **12**(3): 337-342.

Zhu, D. H. and J. D. Westphal (2014). "How directors' prior experience with other demographically similar CEOs affects their appointments onto corporate boards and the consequences for CEO compensation." Academy of management Journal **57**(3): 791-813.