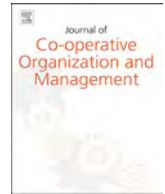


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The presidency of the governing boards of cooperatives in Spain: a gendered approach

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ABSTRACT

International cooperative values and principles are guidelines that could lead cooperatives towards greater gender equality in the decision-making process. Stimulated by the interest in cooperatives and by the growing demand for advocating a faster increase in the presence of chairwomen in boardrooms, this research aims to analyse the impact of the gender of the cooperative president in some variables related to financial and employment ratios, corporate governance and other characteristics of the organization in Spain. Information about the major Spanish cooperative entities has been collected and analyzed to carry out the empirical study. We find that cooperatives with higher liquidity ratio, higher number of employees, higher percentage of female employees, higher employee costs divided by operating revenue ratio, lower indebtedness, and fewer years since the appointment of the president have a higher probability of belonging to the group of cooperatives with a board chaired by a woman. Cooperatives headed by women exhibit a higher ratio of staffing costs to operating revenues, which could indicate an increased intensity of cooperative principles and values related with the primacy of the economic welfare of workers over the economic benefits.

1. Introduction

Gender diversity in boardroom and top management positions is increasingly drawing attention from practitioners, scholars and policy-makers (Bøhren & Staubo, 2014; Terjesen, Aguilera, & Lorenz, 2015). Research into the role of women in business reviews its relation with economic and social fields, among others (Adams & Kirchmaier, 2016; Daily, Dalton, & Canella, 2003; Francoeur, Labelle, & Sinclair-Desgagné, 2008; Klettner, Clarke, & Boersma, 2016).

The presence of women on boards and in top management contributes to social and ethical equity by reducing the gender gap. This implies that the participation of women in boardrooms may be related on both economic and sociological levels. Beyond the social and ethical considerations, gender equality may have important implications in several organizational aspects. For example, previous studies show a positive effect of the presence of women in decision-making positions on firm performance (Carter, Simkins, & Simpson, 2003; Catalyst, 2004; Dezső & Ross, 2012; Terjesen, Barbosa, & Morais, 2016).

However, despite the substantial advances that organizations have made over the last decades to increase women representation, their presence at board level, in general, is still reduced (Kakabadse et al., 2015).

Women's participation may vary depending on the type of organization. In particular, the idiosyncrasies of cooperative companies offer a favorable context for women's participation. The International Co-operative Alliance (ICA) established gender equality as a priority for the cooperative movement in 1995. Accordingly, democratic member control, one member one vote, and no gender discrimination are some of the values of cooperative principles. The results of a survey conducted by the International Labour Organization (ILO, 2015) indicate that cooperatives had improved women's participation in the labor market over the last twenty years. Due to its principles, this type of organization seems to facilitate progress in gender equality more than other business models (International Labour Office, 2015; Miller, 2011). However, comparing gender relations between capitalist enterprises and cooperatives is complicated (Miller, 2011).

Cooperatives have corporate values and principles that make them particularly suitable for performing actions of corporate social responsibility in general and particularly so for developing measures for the real equality of women and men (Senent Vidal, 2011). One of the advantages of cooperatives for women is that these organizations can contribute to the social inclusion of women and their empowerment (Datta & Gailey, 2012). According to Nair and Moolakkattu (2015) "As many women are forced into the informal labor market, the cooperative

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model provides them an alternative means of coming together and working collectively” (p. 106). Equally important, the presence of women leaders in cooperatives may favor the boards’ social orientation (Périlleux & Szafarz, 2015).

The ICA has developed strategies to promote gender equality as a global priority, and has set a series of plans of action to address the issue. According to the [International Co-Operative Alliance Asia and Pacific \(2015\)](#), one way to eliminate potential, explicit, implicit and actual gender biases in cooperatives is taking gender equality, which helps to create a positive environment and improve productivity. At the International Conference on Enhanced Role of Cooperatives in Recovery from the Economic Crisis, held in 2009, three organizations ([International Co-operative Alliance Asia Pacific \(ICA\)](#), [Indian Farmers Fertilizer Cooperative \(IFFCO\)](#) and [Cooperative League of Thailand \(CLT\)](#)), established recommendations so that governments and international organizations recognize the potential key role of cooperatives in solving the global economic problems.

One of the main problems of the Spanish economy is unemployment, especially so for women. In fact, in May 2018, Spain stood at the foot of the list European countries -surpassed only by Greece- with a rate of unemployment of 15.4% compared to an average of 6.9% of the EU-28 ([EUROSTAT, 2018](#)). By the same token, unemployment was higher for women than for men, 17.2% versus 13.8% ([EUROSTAT, 2018](#)). Given the unemployment rate in Spain, the analysis in this study is built on cooperative organizations as a group of firms theoretically more given to women’s participation. Further, we choose cooperative firms because of the unique nature of their business model, which may facilitate gender equality. As in some other countries, Spain has introduced formal regulations on gender equality, which requires female participation on corporate boards ([Organic Act 3/2007 of 22 March, for effective equality between women \(from now on Effective Equality Act 2007\)](#)), and nowadays an open debate on the importance of women in corporate governance has grown. Nevertheless, it is a voluntary measure, without any penalties for companies that fail to comply.

Regarding cooperatives, Spain has been a pioneer in covering specific legislation on Social Economy ([Law 5/2011, of the 29 of March, on Social Economy](#)), of which cooperative firms are the most genuine members. Despite a growing body of literature on women in governance, studies on the presence of women in boardrooms of cooperatives in Spain remains a largely uncharted territory in the English-language literature. For this reason, our findings cover the Spanish context of gender and cooperatives.

This study addresses how women’s presence as presidents of the board of directors in cooperatives correlates with several organizational and financial outputs. Moreover, it contributes to the literature on board diversity by shedding additional insights on the debate involving cooperative firms. First, we outline the participation of women on corporate boards and the gender gap in organizations. We then focus on the nature of cooperatives and the implications of cooperative principles in gender equality. This is followed by a review of the participation of women on corporate boards in the Spanish cooperatives. Next, we explain the methodology and the main results of the article. In the concluding section, the results of the study are discussed.

2. Theoretical background

2.1. Gender diversity in top management

This study draws on theories of corporate governance. These approaches have their roots in the seventies with the theory of agency. This theory claims that the primary responsibility of the corporate board is to guarantee the maximization of shareholder value ([Jensen & Meckling, 1976](#); [Jensen, 2001](#)). [Terjesen, Sealy, and Singh \(2009\)](#) highlighted agency theory, resource dependency, and gender role theory, as fundamental theories at the firm level to study the gender diversity contribution to better board effectiveness. From an agency

theory perspective, the presence of women on the board will increase board independence and improve the board’s monitoring ([Carter et al., 2003](#)).

Moreover, women may bring new perspectives on complex issues and enhance problem-solving ([Francoeur et al., 2008](#)). According to the resource dependence theory, diversity is an instrument for accessing unique and valuable resources, such as knowledge and relationships, crucial to the firm’s success ([Terjesen et al., 2016](#)). Moreover, the resource-based view emphasizes the diversity as a source of competitive advantage due to the synergies from the interaction of males and females ([Gallego, García, & Rodríguez, 2010](#)). Gender role theory proposes that gender determines individual behaviour, which is assessed on its alignment or deviation from expectations of the respective gender ([Eagly, Karau, & Makhijani, 1995](#)). Women are expected to be more flexible, which allows them to manage ambiguous situations ([Rosener, 1995](#)). [Francoeur et al. \(2008\)](#) argue that according to the stakeholder theory, firms involving female board members will better protect the interests’ of various stakeholders.

To [Abdullah and Valentine \(2009\)](#) “an effective and good corporate governance cannot be explained by one theory but it is best to combine a variation of theories” (p. 94). In the same way, [Daily et al. \(2003\)](#) point out that “many of these theoretical perspectives are intended as complements to, not substitutes for, agency theory” (p. 372), which is the main theoretical framework used in this study.

An extensive theoretical and empirical literature finds significant relationships in different countries between the most influential profit organizations and gender diversity on the boards of directors ([Carter et al., 2003](#)).

Previous studies have addressed the role that female directors play in large listed companies ([Mateos, Escot, & Gimeno, 2006](#); [PWC, 2015](#)). However, notwithstanding the increased relevance of gender diversity in the boardroom and top management positions, only a few studies have focused on the gender diversity in the presidency of the boards of directors of the companies that make up the social economy. In addition, the drivers of empowerment of chairwomen in non-profit organizations have been understudied to date. The development of equality is one of the fundamental cooperative principles established by the International Cooperative Alliance ([International Co-Operative Alliance \(ICA, 1995\)](#)). Values such as solidarity, equality, predominance of the individual over capital, and links with the territory make cooperatives an appropriate business model for women ([Arroyo Sánchez, 2011](#); [Sajardo & Bakaikoa, 2004](#)).

On the contrary, some authors question the supposed ability of cooperative firms to deal adequately with gender equality compared to other business models, since observing similarities in gender stratification and segregation ([Hacker & Elcorobairutia, 1987](#)). [Arroyo Sánchez \(2011\)](#) analyses the associated labor cooperatives and notes that a reflection is necessary regarding promotion rules in the workplace that may lead to gender parity. She also advocates education based on gender equality. Given these points, as [Senent Vidal \(2011\)](#) reflects, the role of women in cooperatives is shown as a “blurred and unfocused photo”. Although the female presence in the corporate governing bodies of social economy entities is still lower than that of males, it is generally argued that the cooperative principles and the nature of these entities make it possible to promote women within the hierarchical organization ([Mateos De Cabo, Iturroiz Del Campo, & Gimeno Nogués, 2009](#)).

2.2. Cooperatives and women participation in Spain

Spain is an interesting context in which to examine the female presence on the board in cooperatives for several reasons. Spain has been one of the first European countries to issue a law promoting board gender diversity. In 2007, Spain established a recommendation to achieve greater gender balance on boards of directors of large companies through the [Organic Act 3/2007 of 22 March, for effective equality](#)

between women (from now on Effective Equality Act 2007).

Additionally, the Spanish social economy, whose main exponent are cooperatives, generates approximately 10% of the Spanish gross domestic profit and 12.5% of the employment, while 42.8% of the population is linked to the Social Economy (CEPES, 2017). By combining the special features of cooperative firms and the Spanish economy, we can gain insight into the study of the impact of gender on a wide range of corporate variables.

In recent years, there has been an increase in the number of studies on the role of women in the boardrooms of the major Spanish companies. Recently, Grant-Thornton (2015) showed that there has been stagnation in the percentage of female board members in Spanish companies, which has only advanced 5 points, from 22 to 27%, since 2011. According to the European Institute for Gender Equality (2018), women represent 8.8% of the presidents of companies in Spain, slightly higher than the European Union (28 countries) average, 7.5%.

Beyond the aforementioned figures, previous studies have failed to establish evidence about the presence of women as members and as chairperson of boardrooms in Spanish cooperatives. Some researchers focus on the territory, others on the sector (Hernández, Martín, & Mínguez, 2016), while other authors look for differences between workers' cooperatives and the rest of cooperatives (Berenguer Contrí et al., 1999; Fernández Plaza, 2000; Romero & Pérez, 2003). Berenguer Contrí et al. (1999) analyzed the associated labor cooperatives in the Valencian Community and found a female presence on the governing boards of 27.38%. Fernández Plaza (2000) noted that the presence of women in the cooperatives of the Community of Madrid was 35% of female board members. Romero and Pérez (2003) found that women only managed 25% of Andalusian associated labor cooperatives, although they represent one third of the employees. An interesting synthesis of these studies can be seen in the article of Martínez León, Arcas Lario, and García Hernández (2011). In this study, they find that companies from the social economy underutilized the particular style of female leadership in decision-making. The mentioned authors analyzed 134 social economy organizations, including cooperatives entities and labor societies, and found that women hold 42.9% of jobs, thus complying with the Spanish Effective Equality Act 2007, but their presence in decision-making is weak. They observe women partners (29.5%) only make up 23% of management positions. On the other hand, Elio (2006) found that in the Basque Country, in the cooperatives of the group Mondragón Corporación Cooperativa, women held 16% of the positions in the Governing Councils in 2000. More recently, Hernández et al. (2016) found that in 2010, in a sample of Spanish cooperatives, the percentage of women on the board of directors was 13.20%. Also for the Spanish case, Esteban-Salvador, Gargallo-Castel, and Pérez-Sanz (2010) observe that the percentage of boardrooms chaired by women was 11.34%.

Other studies have focused on the agricultural cooperatives; in this case, Carretero and Avello (2011) found that female participation on boards is a meagre 3.5%, with 1.75% as presidents, and that on average they are younger, which may indicate a recent incorporation. Esteban, Gargallo, and Pérez Sanz (2012) reported 20.9% of directors being women for a sample of agricultural cooperatives in the province of Teruel. Recently, Hernández Ortiz, Ruiz Jiménez, García Martí, and Pedrosa Ortega (2018) analyzed the composition of the board of directors of the agri-food cooperatives and conclude that, far from achieving the parity objective, only 22% of the cooperatives have any female presence on their boards of directors. Balanced boardrooms are more frequent among younger cooperatives.

Hernández et al. (2016) found that Spanish cooperatives with more female than male directors have higher profitability and a lower level of indebtedness. Therefore, the Spanish context is appropriate because of the importance of the social economy and the interest for gender participation in the economic field.

Table 1
Independent variables.

Financial and employment ratios	Indebtedness Liquidity ratio Return on assets Profit per employee Operating revenue per employee Costs of employees between operating revenues
Firm characteristics	Age of the cooperative Number of employees Percentage of female employees Availability of website
Corporate Governance	Board size Years since the appointment of the president Number of companies in which the president has functions

3. Data and methodology

Female presence on board of directors in the Spanish cooperatives may be related to several characteristics that are interesting to analyze.

With this in mind, this paper poses and tries to ask which variables related to financial and employment ratios, corporate governance and other characteristics of the organization are related with the female gender of the cooperative president in Spain. Identifying variables that characterize cooperatives chaired by women could help to set up the profile of organizations that contribute to the development of gender equality.

The general approach taken here is to model the probability that a cooperative is chaired by a man (z-chairman) or by a woman (w-chairwoman) as a function of a group of independent variables measuring employment, performance, liquidity and debt ratios, corporate governance variables, and firm characteristics. Table 1 shows the list of independent variables.

3.1. Sample and data sources

The sample used for the study was drawn from the System Iberian Balance Analysis database (SABI), which holds accounting data on Spanish companies. The initial sample includes 6419 cooperatives. Some data clean-up was necessary. Cooperatives that appeared as inactive have been eliminated, as well as organizations in which it has not been possible to identify the president. This left a final sample of 2155 cooperatives. The data have been taken between May and June 2016, and the information of each cooperative corresponds to the most recent year available in the database, in some companies data came from December 2015, while in others it came from previous years.

In Table 2 we can see the total number of chairmen and chairwomen. Among the cooperatives in which it is possible to identify the gender of the president, only 167 are women, representing 7.7% of the total.

As an essential variable is the percentage of women employed in the cooperative, we have selected all organizations with data about the gender of the employees. The sample in the current study initially had 2155 observations and was reduced to 478 after eliminating those

Table 2
Distribution of the presidency by gender.

	President	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	1,988	91.6	92.3	92.3
	Female	167	7.7	7.7	100.0
	Total	2155	99.3	100.0	
Missing system		16	0.7		
Total		2171	100.0		

Table 3
Distribution of the presidency by gender, reduced sample.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	433	90.6	91.9
	1	38	7.9	8.1
	Total	471	98.5	100.0
Missing system	7	1.5		
Total	478	100.0		

Table 4
Characteristics of the Sample. Descriptive.

		N	Mean	Std. Deviation
0 = Chairman 1 = Chairwoman				
Age of the cooperative	0	389	35.94	20.44
	1	33	29.13	16.29
	Total	422	35.41	20.21
Return on assets	0	433	-1.46	27.10
	1	38	-1.26	19.18
	Total	471	-1.45	26.53
Liquidity ratio	0	432	2.16	4.28
	1	38	6.94	26.19
	Total	470	2.55	8.52
Indebtedness ratio	0	433	65.44	42.77
	1	38	57.75	39.12
	Total	471	64.82	42.50
Operating revenue per employee	0	425	771.27	2906.35
	1	36	243.16	429.01
	Total	461	730.03	2796.41
Costs of employees between revenues	0	433	20.76	63.85
	1	38	38.37	53.80
	Total	471	22.18	63.23
Total employees	0	433	56.28	128.97
	1	38	139.68	506.05
	Total	471	63.01	189.65
% female employees	0	433	28	0.25
	1	38	37	0.32
	Total	471	28	0.26
Years since the appointment of the president	0	383	10.56	13.25
	1	35	10.59	18.91
	Total	418	10.56	13.78
Number of companies in which the president has functions	0	433	2.03	2.01
	1	38	1.55	1.31
	Total	471	1.99	1.96
Board size	0	433	2.77	2.51
	1	38	2.89	3.48
	Total	471	2.78	2.59
Profit per employee	0	425	5.47	30.16
	1	36	1.31	28.01
	Total	461	5.15	29.99
Web = 1 no web = 0	0	433	0.51	0.50
	1	38	0.37	0.49
	Total	471	0.50	0.50

cooperatives without information about the gender of their employees (Table 3). Finally, the number of cooperatives with information on the gender the president is 471.

Table 4 contains the descriptive statistics of the independent variables about the gender of the president.

Return on assets is higher in cooperatives headed by women than in those presided by men. In both cases, this value is negative (-1.26 and -1.46, respectively).

Cooperatives chaired by women have more than triple the liquidity than those headed by men, and the indebtedness ratio in organizations run by women is 57.75; while this ratio in cooperatives led by men is 65.44. Profit per employee is higher in the cooperatives chaired by men

(5.47) than in those cooperatives presided by women (1.31).

Operating revenue per employee amounted to 771.27 in cooperatives headed by men and 243.16 in those headed by women. Employee costs divided by operating revenue is higher in the case of cooperatives run by women, 38.37 against 20.76.

The average number of employees in cooperatives chaired by women is 139.68, women chair larger organizations, while men run cooperatives with an average of 56.28 employees. Regarding gender, when a woman heads a cooperative, the average number of female employees is 37%, whereas when a man heads these organizations the percentage of women is 28%. The average age of the cooperatives presided over by women is 29.13 years, while organizations headed by men have an average age of 35.94 years. Cooperatives led by men more frequently have websites than those run by women (51% and 37% respectively).

Regarding the characteristics of the boards of cooperatives chaired by women we can see that on average, women head cooperatives in which the boards are larger than those led by men. The number of companies in which the president has functions is higher when this person is male. Finally, the average number of years since the appointment of the president is higher when women head the boards.

To perform the empirical analysis, we use a binary logistic regression model. We carried out logit analyses using the statistics package SPSS, because the dependent variable is a dichotomous variable measuring the gender of the president. We considered this to be one of the most appropriate statistical techniques for this type of data (Esteban-Salvador, 2011). We analyse which variables predict whether the president of the cooperative is male or female. We examine how a series of variables influence the likelihood that the president of the company is a man or a woman. Before starting the analyses, we tested for the possible existence of linear relationships in each binary logistic regression model between the independent variables. We carried out logit analyses, using the IBM SPSS Statistics 22 package, where the dependent variable is a fictitious variable measuring if the president is a man or a woman. Thus, we built a model where the dichotomous dependent variable equals 0 if a man chairs the board of the cooperative, and 1 if a woman heads it.

$$Y_i = 1 \text{ Prob}(Y_i = 1) = p_i$$

$$Y_i = 0 \text{ Prob}(Y_i = 0) = 1 - p_i$$

The model is represented as a logistic function whose values range from 0 to 1:

$$p = \frac{e^Z}{1+e^Z} \text{ or } p = \frac{1}{1+e^{-Z}} \text{ and } q = 1 - \frac{1}{1+e^{-Z}}$$

where p is the probability of success—board chaired by a woman—, q the probability of failure—board headed by a man—, $p + q = 1$, and e is the base of the natural logarithm.

Z is a combination of independent variables:

$$Z = B_0 + B_1 X_1 + B_2 X_2 + \dots + B_k X_k$$

where B_0, B_1, \dots, B_k are the coefficients to estimate from the data and X_1, X_2, \dots, X_k are the independent variables.

We test the following:

Null Hypothesis: The independent variables (X_1, X_2, \dots, X_{13}) do not significantly influence the dependent variable, the gender of the president of the cooperative

The larger Z is, the closer p will be to 1, and the more negative Z is, the closer p will be to 0. When $Z = 0$, p will equal 0.5; in other words, the probability of being chaired by a man will be the same as the likelihood of being chaired by a woman. We tried to obtain a linear combination of the independent variables capable of estimating the characteristics which impact the probability that a board member belongs to a board chaired by a man or by a woman. The linear combination proposed is the following model:

Table 7
Case Processing Summary.

Case Processing Summary			
Unweighted Cases		N	Percent
Selected Cases	Included in Analysis	365	76.4
	Missing Cases	113	23.6
	Total	478	100.0
Unselected Cases		0	0.0
Total		478	100.0

Table 8
Results of logistic regression analysis.

	B	S.E.	Wald	Exp(B)
Age of the cooperative	-0.016	0.014	1.196	0.985
Liquidity ratio	0.027**	0.014	3.795	1.027
Board size	0.033	0.083	0.157	1.033
Years since the appointment of the president	-0.102**	0.050	4.214	0.903
Number of companies in which the president has functions	-0.068	0.148	0.215	0.934
Indebtedness	-0.013*	0.008	2.842	0.987
Costs of employees between operating revenues	0.029***	0.009	10.306	1.030
Average cost of employees	-0.008	0.012	0.432	0.992
Number of employees	0.001*	0.001	2.712	1.001
Percentage of female employees	1.339*	0.785	2.907	3.816
Return on assets	0.013	0.026	0.254	1.013
Website	0.731	0.511	2.049	2.077
Profit per employee	0.011	0.007	2.019	1.011
Constant	-2.012**	1.019	3.898	0.134

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.001$.

number of employees and the percentage of female employees are significantly associated with the gender of the president.

The model provides six statistically significant variables, one of them has a $p < 0.001$, this variable is employee costs divided by operating revenues. By examining the sign of the logistic regression coefficient (B) we find a positive association between liquidity ratio, number of employees, the percentage of female employees and employee costs divided by operating revenues and gender of the president. The higher the liquidity ratio, number of employees, and percentage of female employees, the higher the likelihood of a woman being the president. On the other hand, we find a negative association between indebtedness, and years since the appointment of the president and the chairperson. This result is consistent with the slight improvement, albeit slow, produced in recent years in the inclusion of women in top-managerial positions, which means that the more recent the appointment of the president the higher probability that the chair is a woman.

Looking at the values and signs of the coefficients in the equation, the results show that the chances of belonging to the group of cooperative chaired by women are higher among those firms with higher values in the liquidity ratio, more employees, higher percentage of female employees, higher employee costs divided by operating revenues, lower indebtedness, and fewer years since the appointment of the president. The rest of the variables introduced in the model appear not to make a significant contribution to the prediction of having a woman as president. Variables such as return on assets or profit per employee have no statistically significant relationship with the president's gender. In this sense, it is necessary to take into account that cooperatives are non-profit enterprises, whose purpose is to maximize social returns, rather than economic profit maximisation, regardless of the chair's gender of the cooperative. This could be a possible explanation of why these variables are indifferent to the chair's gender.

5. Discussion and conclusions

This article represents a step forward in linking two research topics, gender empowerment, and research on cooperative firms. Cooperative principles and values offer a unique context to gender equality. Moreover, diversity may provide opportunities to increase performance. These assumptions show a gap in the current debate related to the role women empowerment plays in cooperatives. To address this gap, we review the literature and empirically analyse the potential relationship between these variables. The current article sought to find out what variables predict the probability that a man or a woman chair a cooperative. The results of the study confirm and extend the findings from the sparse literature. Cooperatives with higher liquidity ratio, a higher number of employees, higher percentage of female employees, higher employee costs divided by operating revenue ratio, lower indebtedness, and fewer years since the appointment of the president have a higher probability of belonging to the group of cooperatives with a board chaired by a woman. Here our findings partially support the results of previous studies. [Hernández et al. \(2016\)](#) suggest that cooperatives with a higher percentage of female directors show a lower level of indebtedness. In general, women are considered more risk averse ([Borghans, Heckman, Golsteyn, & Meijers, 2009](#)), female CEOs tend to reduce the corporate risk-taking ([Faccio, Marchica, & Mura, 2016](#)) and women entrepreneurs tend to make greater use of equity and less debt ([Orser, Riding, & Manley, 2006](#)).

Some studies report correlations between the size of firms and the presence of women on corporate boards ([Hyland & Marcellino, 2002](#); [Terjesen et al., 2016](#)). The higher number of employees and the higher cost of employees by operating revenues may suggest that female participation on corporate boards could improve the labor conditions in cooperative firms ([Fregidou Malama, 2004](#)) and fringe benefits ([Rand & Tarp, 2011](#)). The size effect seems to be related to the firm size, but not to the board dimension. The percentage of female employees has also been previously considered an important facilitator for female participation on the board of directors of the cooperatives ([Carretero & Avello, 2011](#); [Mateos, Gimeno, & Escot, 2011](#)).

Age of the cooperative is not found to be significant in the analysis. Nevertheless, the higher presence of female directors in those cooperatives where the appointment of the president has been more recent indicated a slight change of tendency in the participation of women in business ([Esteban-Salvador et al., 2010](#)). [Hernandez et al. \(2018\)](#) do not have information about the time of the appointment of the president, but they do find a greater tendency to gender parity among younger cooperatives.

The results of the empirical study provide new evidence on gender diversity on decision-making bodies in organizations and illustrate the importance of corporate governance issues for cooperative enterprises in Spain. Furthermore, information about the presidency of the governance boards regarding gender is provided in order to highlight the role of women in the Spanish cooperative business model. This is especially interesting in a country which is a pioneer both of equality and of social economy legislation (Effective Equality Act 2007; [Law 5/2011, of 29 March, on Social Economy](#)). These analyses also allow the detection of differences in behaviour patterns between both men and women in democratic organizations.

The result of employee costs divided by operating revenue ratio is interesting from the perspective of the corporate values and principles of cooperatives. It could mean that cooperatives headed by women could have higher personnel costs, perhaps because they hire more people. If this were so, we could say from a stakeholder's perspective that cooperatives headed by women focus more on the economic welfare of their workers than on achieving economic benefits. According to the stakeholder theory, the purpose of a business is to create value not only for shareholders, but, in general, for stakeholders ([Freeman, 2008](#); [Harrison, Bosse, & Phillips, 2010](#)). As [Périlleux and Szafarz \(2015\)](#) indicate, women leaders may favor the social orientation of cooperative

boards. Moreover, the organizational model of cooperative firms is supposed to place people into the midst of the firms' operations.

Other studies found that the average wage of the cooperative organizations was lower than the average wage of capitalist firms (Clemente, Diaz-Foncea, Marcuello, & Sanso-Navarro, 2012; Pencavel, Pistaferrri, & Schivardi, 2006), others indicated that cooperatives, in particular associated worker's cooperatives, may have incentives to increase wages and other labor rewards (Arruñada, 1998), because according to the agency theory the conflicts of interest between owners and workers will disappear in these cooperatives. In cooperatives, social benefits should take preference over financial gain. However, it is necessary to take into account that the guarantee of the survival of the cooperative will increase if, in addition to the social benefits, economic profit is achieved. In this study, we do not find significant results on other variables pertaining to the economic performance, such as return on assets or profit per employee. This indicates that economic performance is not related to the chances of belonging to the group of cooperatives chaired by women. These results are in line with those of some that find a negative relationship between the presence of women on the boardroom and performance (Bøhren & Strøm, 2006; Pelled, Eisenhardt, & Xing, 1999; Shrader, Blackburn, & Iles, 1997), or others that do not obtain a statistically significant relationship (Miller & Triana, 2009; Rose, 2007; Zahra & Stanton, 1988).

To our knowledge, there are not any studies that analyse differences depending on the gender of the head of the board. The results contribute to the emergent dialogue on the significant and important role that female presence on the board play on governance. The article also serves to reinforce the theoretical and practical implications of findings from studies on cooperatives. Nevertheless, we should consider the limitations of the study, mainly its focus on the cooperative firms. In light of this, we should be cautious about generalizing the findings without the opportunity to compare our results with those of studies on capitalist firms. Such studies are of interest for subsequent research.

In this study, we showed the small number of women holding the position of chairperson of the board –only in the 7.7% of the cooperatives in the sample–. The reasons appear to lie in the fact that, despite the principle of non-discrimination in cooperative organizations, they carry out their activities in a context influenced by traditions, stereotypes and the distinctive culture of the society (Carretero & Avello, 2011; Grant-Thornton, 2015; Ribas Bonet & Sajardo Moreno, 2004). Although women's representation on supervisory boards is gradually increasing (Holst & Kirsch, 2014), there is still a significant gap between the proportion of employed women and those sitting on the boards of directors. On the other hand, it is difficult to conclude whether it is the female presidency of the boards which determines the analyzed aspects or whether these factors explain the higher propensity to incorporate women in the presidency of the boards. This paper offers a starting point to investigate the relationship between gender participation on corporate boards and cooperative characteristics. Our results provide a broad view of this relationship and serve as useful evidence for future research on social economy firms. The study has some limitations, given that showing the relevance of the representation of women in cooperative corporate boards is not the same as explaining how cooperatives promote gender equality. As a result, more research is needed on the presence of women on corporate boards of directors in these organizations. The development of this idea could be an extension of this research in the future. Furthermore, future research projects should investigate differences that emerge from the cooperative model and other managerial models.

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