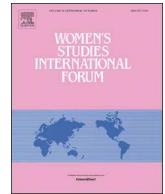


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Public recognition of gender equality in the workplace and its influence on firms' performance



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ABSTRACT

The strong presence of gender inequality in companies has been given great attention at an institutional and research level. In order to acknowledge organizations committed to eliminating this gender gap, a seal of distinction for equality in the workplace was created at an institutional level in Spain. Although this type of public recognition can improve gender equality in the workplace, the aim of this research is to study whether it also has a favorable impact on the financial performance of Spanish companies. To do so, the variation in financial performance has been analyzed before and after the concession of this distinction, taking into consideration its relationship with a series of economic and gender variables. The implementation of a panel data regression has shown that sales, worker efficiency, and how efficiently directors manage the company have a positive influence on financial performance in the period subsequent to institutional recognition for adopting equality measures in the workplace. In addition, if the person presiding the company is a woman, this implies a positive influence on financial performance.

Introduction

The issue of inequality in the workplace is a reality that has existed since women entered the labor market and it still exists. Despite the gradual progress being made to equalize labor rights, experience shows us that there is still a long way to go. Even though they remain external, there are intrinsic and interactive barriers to achieving gender equality in the workplace, thus preventing women from benefiting from the opportunities it offers (Barberá, Estellés, & Dema, 2009). These same rights and opportunities should also apply and correspond to them in the workplace.

In spite of the strong presence of women in the labor market and the time that has passed since they became fully integrated in it, female workers are still at a clear disadvantage with respect to men. This inequality becomes even more patent in the access to positions of power (Olidi, Parejo, & Padilla, 2013) and some reports have denounced this situation, such as the one by Corporate Women Directors International (CWDI, 2018). This report revealed that in 2018 only 21.4% of women held management positions in the 200 largest companies in the world. Similar results can be found in the report by the International Labor Office (ILO, 2019). After a survey of nearly 13,000 companies across the globe, it concluded that globally a third of companies have at least 30% of women on their boards. In nearly 70% of companies with a

board of directors, 14.3% have attained a gender-balanced board of 40% to 60%.

In order to reverse this reality, organizations on a European and national level have tried to establish rules to achieve gender equality in the workplace. Their aim is to eliminate the obstacles that women encounter throughout their careers, and which hinder effective gender equality in the workplace. In this regard, the European Union assumed a leading role through the Treaty of the European Union in Equality, one of its main pillars being to promote gender equality. Echoing the need to correct this situation, in 2007, the Organic Law 3/2007 for effective equality of women and men was enacted in Spain. One of the provisions of this law is to establish a seal of distinction for equality (DIE) which acknowledges those companies that have distinguished themselves through the implementation of equal treatment and equal opportunity policies for their workers. Its main objective is to eliminate the obstacles encountered by Spanish women throughout their careers that hinder effective gender equality in the workplace. We should not forget that Spain is one of the countries with a strong presence of gender inequality in the workplace. In fact, IESE Insight (2018) reported that women had a 24% share of seats on boards of companies listed in the IBEX index. In this line, the study reported by Informa D&B (2017) verified that 74.24% of the companies in Spain had < 40% female presence on their boards of directors.

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An objective and generally accepted seal of distinction that certifies companies which have implemented measures to achieve gender equality in the workplace is a practice used in other areas of business (Heras-Saizarbitoria & Boiral, 2011). The concession of the DIE guarantees that a company is applying measures to achieve equal pay, female representation in decision-making groups, and professional and family life conciliation. Public recognition of DIE could be a highly important competitive strategy variable. It could help companies achieve a “win-win” situation, where both companies and female workers would benefit. Recognition of gender equality in the workplace could also positively influence an organization's image and efficiency. This would allow it to obtain competitive advantages (Armstrong et al., 2010; Kotiranta, Kovalainen, & Rouvinen, 2007), which could ultimately improve its financial performance (Bennouri, Chtioui, Nagati, & Nekhili, 2018; González, Guzmán, Pablo, & Trujillo, 2018; Terjesen, Barbosa, & Morais, 2016).

It should be noted that a great deal of academic and professional attention has been given to how gender equality affects financial performance. However, due to the heterogeneity of the results obtained, it has not been possible to find evidence regarding the direction of this relationship. In this respect, authors like Pletzer, Nikolova, Kedzior, and Voelpel (2015), Pasaribu (2017) found no evidence of any relationship. And although the studies by Ionascu, Ionascu, Sacarin, and Minu (2018), González et al. (2018), Bennouri et al. (2018) verified a positive influence, those by Bøhren and Strøm (2007), Ahern and Dittmar (2012), Daunfeldt and Rudholm (2012) indicated that its impact was negative.

Thus, unlike previous studies, the objective of this paper is to analyze whether distinctions awarded by public bodies in recognition of gender equality in the workplace can create competitive advantages that positively influence the financial performance of companies. To obtain evidence of this relationship, we conducted a longitudinal study from 2008 to 2016 comparing the financial performance of the Spanish companies that obtained the DIE in the financial periods before and after its concession. Through the implementation of a panel data technique, the statistical multivariate study shows positive results. The competitive advantages achieved through having the DIE positively influence how efficiently directors manage the company, sales and worker efficiency. This leads to a positive financial performance, which is highest in those companies where the presidency is occupied by a woman.

Thus, this study uses an innovative approach, is broader in terms of gender equality in companies and the results obtained provide a more complete view of the performance of the organizations involved. This in turn can provide business managers and public bodies with relevant information for assessing how a public gender equality distinction affects companies' financial performance. In addition, this institutional recognition and its positive impact on the organization can motivate company managers to promote a pro-gender equality attitude. It is also of interest to researchers since it opens up a new line of research and contributes to broadening the literature that analyzes the relationship between economic and financial performance and the institutional recognition of the adoption of gender equality policies. The results obtained will also be useful for investors, as their investment decisions depend on whether a company has institutional recognition. Finally, it will influence the behavior of investors and customers whose decisions are not based only on economic and financial aspects, but also because they are sensitized to gender equality, preferring to invest or buy in entities that have achieved the equality distinction.

Barriers to gender equality at an organizational level

As mentioned above, although it has been some time since women entered the labor market, they still suffer gender discrimination at work (Oliidi et al., 2013). As Matus and Gallego (2015), reveal in their factor analysis of the “glass ceiling” concept, this discrimination is a result of

the numerous obstacles that interfere with the professional careers of women. On the whole, these authors point out three types of obstacle: social, organizational and personal. Firstly, the emergence of social barriers related to gender stereotypes and an androcentric vision downplay the female role in the workplace. In the context of organizational obstacles, there are fewer training opportunities for women, gender biased staff selection policies and the exclusion of women from communication channels that share business information. Finally, personal barriers are those caused by the maternal role, conciliation problems and family responsibilities. In conclusion, as Barberá et al. (2009) affirm, these obstacles prevent women from entering the labor market and benefiting from the opportunities available under equal conditions to men.

In line with these considerations, Pellegrino, D'Amato, and Weisberg (2012) draw attention to the fact that obstructing female equality in the workplace would affect two areas. Firstly, it would prevent making use of the advantages that become available after integrating women at any level of the firm. Secondly, it would mean having to assume the inherent risks that arise from not undertaking actions aimed at achieving gender equality. According to these authors, obstructing women's integration at any organizational level could have three negative repercussions: lower group intelligence in decision-making teams as a result of less social sensibility; loss of qualified employees; and no access to market niches where women are the main consumers. Consequently, it becomes evident that organizations should adopt measures that eliminate and overcome the obstacles and barriers that hinder gender equality in the workplace.

Presence of women at decision-making levels

One of the most apparent consequences of the above-mentioned discriminations is the lack of female presence at all levels of decision-making in the entity. In this regard, the recent IESE Insight (2018) report highlighted that there was only a 24% presence of female directors on the boards of Spanish companies listed in the IBEX. In the same line, Spain was placed 18th in the report by Dawson, Kersley, and Natella (2016) for Credit Suisse assessing the role of women on administrative boards in > 3,400 companies worldwide. In a document prepared by the company Informa D&B (2017), it was revealed that only 25.76% of Spanish companies had > 40% female presence on their boards of directors. Although, as Biedma (2017) affirmed, there has been a gradual increase in the presence of women on corporate boards in Spain, Reguera-Alvarado, Fuentes, and Laffarga (2017) indicated that this was not enough. According to these authors, only 13% of women hold positions on boards of directors in Spanish companies listed on the stock market.

In an international context, in their research on the 200 largest companies worldwide, the Corporate Women Directors International (CWDI, 2018) indicated that from 2004 to 2018 the percentage of women on boards of directors had only increased 10.4%, being 21.4% in 2018. In this sense, in the United Kingdom, Sealy, Doldor, and Vinnicombe (2016) demonstrated that UK companies listed on both the FTSE 100 and the FTSE 250 with at least a 33% presence of women on boards of directors was 19% and 15.6% respectively. The report by Dawson et al. (2016) for Credit Suisse presented similar results. Their results for female representation on their boards of directors put Norway in first place with 46.7% and France in second place with 34%.

In summary, the homogeneity in the results of these studies can be clearly appreciated. They show a patently and perceptibly poor representation of women in top management positions and on boards of directors, with this figure being even more pronounced for Spanish firms.

Gender equality in the workplace and financial performance

There is therefore clear evidence of gender inequality in the labor

Table 1
Summary of quantitative studies about gender equality on the workplace and financial performance.

Study	Sample/Country	Period	Firm performance variables	Gender equality variables	Main analysis	Major findings
Ahern and Dittmar (2012)	248 limited Norwegian firms of Oslo Stock Exchange	2001–2009	Tobin's Q	Percent of female directors	Fixed effects regression	The implementation of the quota caused a large decline in Tobin's Q
Baldrich (2019)	11,762 Colombian firms	2000–2009	ROA	Percentage of female directors	Panel Data: Fixed Effects	Companies with a critical mass of women directors on the board present a ROA that is greater by almost one percentage point
Bennouri et al. (2018)	394 French firms	2001–2010	ROA, ROE, Tobin's Q	Percentage of female directors on boards	Ordinary least squares	Female directorship significantly increases ROA and ROE, and significantly decreases Tobin's Q.
Böhren and Strøm (2007)	All non-financial firms of Oslo Stock Exchange	1989–2002	Tobin's Q	Percent of female directors	Panel Data: Fixed Effects	Gender diversity is inversely associated with performance. Higher board diversity produced by larger board size, stronger gender mix, and more female directors are all negatively related to performance
Daunfeldt and Rudholm (2012)	20,487 Sweden firms	1997–2005	ROA	Share of women on boards of directors	Random-effects random-coefficients model	Gender diversity in the boardroom is found to have a negative impact on ROA after two years. Thus, legal requirements to increase gender diversity on the board of directors might carry lower profitability.
González et al. (2018)	523 Colombian family firms	1996–2006	ROA	Number of female CEOs and directors	Regression analysis	Gender diversity on the board of directors affects firm financial performance.
Gordini and Rancati (2017)	918 Public Italian firms	2011–2014	Tobin's Q	Proportion of female directors on the board and by the Blau and Shannon indexes	Panel Data: Fixed Effects	Gender diversity significantly increases Tobin's Q. The presence of women on the board has an insignificant effect on firm financial performance.
Haslam, Ryan, Kulich, Trojanowski, and Atkins (2010)	97 UK firms of FTSE 100	2001–2005	ROA, ROE, Tobin's Q	Percent of female directors	ANOVA	There is no relationship between women's presence on boards and ROA and ROE. In small to medium-sized firms, there is a negative correlation between women's presence on boards and Tobin's Q.
Hernández, Martín, and Mínguez (2016)	5,199 Spanish cooperatives	2010	ROA, ROE	Percentage of female directors	Three-stage least squares	Cooperatives with greater female representation on their boards have higher ROA and ROE. On the other hand, those Boards with a higher percentage of women show a lower level of indebtedness.
Ionascu, Ionascu, Sacarin, and Minu (2018)	343 Romanian companies of Bucharest Stock Exchange	2012–2016	ROA, Tobin's Q, market to book value of equality	Percent of female directors on the board	Panel Data: Fixed Effects	Although firm performance seems to positively correlate with the gender diversity of boards, the association is not robust and ceases to be significant.
Lückerath-Rovers (2013)	99 listed Dutch firms	2005–2007	ROE	Number of women on boards of directors	Regression analysis	ROE is consistently and statistically significant for companies with female directors compared to companies without female directors.
Pasaribu (2017)	10,680 UK non-financial listed firms.	2004–2012	ROA	Ratio female directors/total directors	OLS model, the two-Stage Least Square (2SLS) model and the Arellano-Bond model.	The effect female directors have on the ROA is positive, but it is not statistically significant. The impact of female directors is stronger in small firms.
Pletzer et al. (2015)	20 studies on 3,097 worldwide companies	2014	ROA, ROE, Tobin's Q	Percentage of females on corporate boards.	Random-effects model with inverse-variance weights	The representation of females on corporate boards is not related to firms' financial performance. Similar small effect sizes were observed when comparing studies based on developing vs. developed countries and higher vs. lower income countries.
Post and Byron (2015)	140 studies of 90,070 worldwide firms	2014	ROA, ROE, employee productivity, ROIC, stock performance, shareholder returns, Tobin's Q	Number of women on boards of directors	Weighted Least Squares Regression Model	A higher number of women on boards of directors is associated with accounting returns but is not necessarily more strongly associated with market performance.
Pucheta and Sánchez (2013)	34 Spanish firms of IBEX-35	2009	ROA	Percentage of women on the board	Logistic regression	The presence of women on the boards of directors is not statistically significant, and therefore, it does not affect ROA. In addition, company size and leverage negatively influence ROA.
Redondo and Jimeno (2010)	1,119 Spanish firms	2001–2005	Operating margin, ROA, ROE	Percentage of female on board directors	ANOVA	Gender diversity does not correlate with ROA and ROE, but it does correlate with operating margin and indebtedness

(continued on next page)

Table 1 (continued)

Study	Sample/Country	Period	Firm performance variables	Gender equality variables	Main analysis	Major findings
Reguera-Alvarado et al. (2017)	125 non-financial firms of Madrid Stock Exchange General Index	2005–2009	Tobin's Q	Percentage of women in Boardrooms	Ordinary least-squares (OLS) regression, generalized method of moments (GMM)	There is a positive relationship between the number of women on the board and the financial performance of firms
Terjesen et al. (2016)	3,876 firms in 47 countries	2010	ROA, Tobin's Q	Number of female board directors	Generalized method of moments	Firms with more female directors have higher firm performance by Tobin's Q and ROA

world and a low presence of women in decision-making positions in companies. This in turn has led to extensive study about whether gender equality in the workplace has favorably influenced the economic and financial performance of companies (Pelger & Tchouvakhina, 2013). As can be observed in the studies listed in Table 1, there is a notable heterogeneity in the results of the different studies. It is true, however, that they use different samples, companies, countries, years of study, analyses and variables to measure both business performance and female representation in companies.

As show in Table 1, the variable that is commonly used to measure gender equality is the percentage or number of women on the boards of directors and in top management. To measure financial performance, the majority use ROA (return on assets), and to a lesser extent ROE (return on equity). Although the results are diverse, the studies that predominate are those that have found a positive relationship with gender diversity on the boards of directors (Kotiranta et al., 2007; Krishnan & Park, 2005). Other studies, fewer in number, using Tobin's q as a performance measure, obtained the same results (Terjesen et al., 2016).

Given that the research findings are conditioned by the regulations and laws in place within each of the contexts of these studies, Table 2 shows those local regulations and laws in place and the measures taken to incentive the inclusion of women on the boards (ILO, 2019). Through the observation of the Table 2, we can acquire a deeper understanding of the research findings.

There are several studies with results that show a positive relationship. The research by Redondo and Jimeno (2010) for a sample of 1,119 Spanish companies verified a positive relation between the percentage of women on boards of directors and operating margin. For their part, Hernández et al. (2016) determined that the Spanish co-operatives with greater female representation on their boards of directors have greater ROA and ROE. Lückcrath-Rovers (2013) showed that Dutch companies with female directors had a higher ROE than companies led by men. After an analysis of 394 French companies, Bennouri et al. (2018), also verified that female management significantly increases ROE and ROA. González et al. (2018), Baldrich (2019), carried out a study of 523 and 11,762 Colombian companies respectively and found that female directors had a positive effect on ROA.

Similar results were obtained by Terjesen et al. (2016) for 3,876 public firms in 47 countries. Post and Byron (2015), found a positive relationship with ROA, ROE and Tobin's q after they made a global study of 90,070 firms. Finally, after studying 125 non-financial firms in the Madrid Stock Exchange General Index, Reguera-Alvarado et al. (2017) revealed that there was a positive relation between the percentage of women on the board of directors and Tobin's Q ratio. Similarly, Gordini and Rancati (2017) found that in 918 Italian listed companies, gender diverse boards of directors have a positive link to financial performance, measured by Tobin's Q, as did Terjesen et al. (2016) in their above-mentioned study.

In contrast to previous publications, Pucheta and Sánchez (2013) obtained a negative association between the presence of women on the boards of directors of Spanish companies listed in the IBEX-35 index and ROA. In Norway, Bøhren and Strøm (2007) confirmed a negative relationship between the presence of women on boards of directors and Tobin's q in Norwegian firms. In a sample of 20,487 Swedish companies, Daunfeldt and Rudholm (2012) found a negative relation between an increase in women on the boards of directors and ROA after two years of their presence on the board. Finally, Ahern and Dittmar (2012) in their study of 248 public limited Norwegian firms on the Oslo Stock Exchange, found that the implementation of the quota caused a large decline in Tobin's Q.

Lastly, Redondo and Jimeno (2010) did not confirm any relation between the percentage of women on the board of directors and ROA and ROE in a sample of 1,119 Spanish companies. Similarly, after analyzing 20 studies on 3,097 companies throughout the world, Pletzer

Table 2
Context of the studies.

Country	Rules/laws in place	Measures undertaken to include women on boards
Colombia	Gender quota law 581 (2000) Law 1257 (2008) Law 1496 (2011)	Quota law of 30% female for the positions that are subject to appointment in executive, legislative and judicial government.
Denmark	Gender Equality (Consolidation) Act (2002) Consolidation Act on Equal Treatment of Men and Women as regards Access to Employment etc. (2006) Act on Maternity Equalisation in the Private Labour Market (2006) Consolidation Act on Equal Pay to Men and Women (2008)	Denmark has not imposed quotas. Denmark's largest private companies (approximately 1100 companies) and all national public companies must to set targets for the proportion of women on their boards and to develop a policy to increase numbers of women in management reached.
France	Law 2014–873 of 4 August “Real Equality Between Women and Men” (2014) Gender quota law (2011)	Quota law requiring 40% female directorship by 2016.
Finland	The Act on Equality between Women and Men	Finland achieved a high share of women on boards of listed companies in 2017 without quotas or mandatory legislation. This has been achieved through enterprise-led initiatives and self-regulation.
Germany	General Equal Treatment Act (2006) Federal Equality Law (2001) Gender quota law (2016)	Quota law of 20% women for supervisory boards of listed companies. If not filled by women, board position must remain vacant.
Italy	National Code of Equal Opportunities between Women and Men (2006)	33% of the unrepresented gender. Large fines for noncompliance.
Netherlands	Gender quota law (2013)	All public companies with > 250 employees required to have 30% board seats filled by women.
Norway	The Gender Equality Act (1978) Gender quota law (2003)	40% quota for publicly listed and state companies by 2008. Possible sanctions include company non-registration, dissolution of the company by court order and fines.
Romania	Law 202/2002 for Equality of Opportunity among Men and Women	Corporate governance rule for all BSE-listed companies to comply with or explain why not in relation to gender balance on their boards and committees.
Spain	Organic Law 3/2007 for effective equality of women and men (2007)	40% quota all publicly listed companies with > 250 employees. Good Governance Code of Listed Companies recommends a 30% representation of women serving on boards by 2020, on a comply-or-explain basis.
Sweden	Discrimination Act 567 (2008)	Swedish Annual Accounts Act requires companies to disclose information on the gender proportionality of their managers in the companies' annual reports. The Corporate Code of Conduct indicates that companies are to strive for gender balance on their boards.
United Kindom	The Equality Act (2010)	Corporate governance code includes “comply or explain” clause on gender diversity and applies to all companies with a premium listing of equity shares regardless of whether they are incorporated in the United Kingdom or elsewhere.
United States	Title VII of the Civil Rights Act (1964). The Equal Pay Act (1963). The Pregnancy Discrimination Act (1978)	Quota law for companies headquartered in California: two women on five-person boards by 2019 and three women on seven-person boards by 2021.

et al. (2015), did not find a significant relationship between the percentage of women on the boards of directors and firms' performance, measured by ROA, ROE and Tobin's q. Except for small-sized companies, Pasaribu (2017) did not determine any significance between ROA and the percentage of women in management positions in all non-financial UK listed firms. Haslam et al. (2010) had similar results for English companies listed on the FTSE 100, where there was no significance with ROA and ROE. Finally, Ionascu et al. (2018) concluded that there was no relation between the number of women on the boards of directors of companies listed on the Bucharest Stock Exchange and ROA and Tobin's Q.

Institutional recognition of gender equality in the workplace

Now that the current situation of gender equality in the workplace has been made apparent, public bodies should play a key role in achieving effective gender equality in the workplace. In this context, Europe and all the developed economies in the rest of the world have included measures in their legislation to put an end to gender inequality. In this regard, it should be noted that in 1976 the Court of Justice of the European Union (EU) passed the first sentence that recognized the equal pay principle for men and women. This was followed by the first legislative act for gender equality two years later, included in the Directive 79/7/EEC. The first point of this Directive was to order member States to progressively implement equality between men and women.

These two events are of vital importance because in the following years they led to the development of a series of Directives and resolutions by the Court of Justice of the EU, in which new measures were

included to guarantee this equality. In this regard, the adoption of the Directive 2006/54/EC served to consolidate and simplify the nine directives on gender equality that had been issued since 1978. This Directive consolidated the rules concerning the application of the principle of equal opportunities and treatment between men and women in matters of employment and occupation in order to defend and contribute to the strengthening of the principle of equality. In 2010, the European Commission issued the communication “Strategy for equality between women and men 2010-2015”. Through this communication they sought to highlight the contribution of gender equality to economic growth and sustainable development, supporting the implementation of gender equality in the European Union's growth strategy “Europe 2020”. In addition, in 2012, the Directive 2012/0299(COD) established a quota law, imposing sanctions on companies that did not comply. The Directive established that members of the under-represented sex should hold at least 40% of the non-executive director positions in listed European companies by 2020, and in public companies by 2018.

In order to redress this situation on a national level, the Organic Law 3/2007 for effective equality of women and men was enacted in Spain. The main objective of this Law, which was the transposition of the Directive 2006/54/EC to Spanish legislation, was to fulfil the right to equal treatment and opportunities between men and women, by eliminating discrimination against women in all spheres of life. This law forced companies to adopt measures to avoid any discrimination between women and men in the workplace. It established public policies for equality, included measures to promote the right to equal employment opportunities, and endorsed measures for reconciling personal, family and professional life. It is important to note that according to

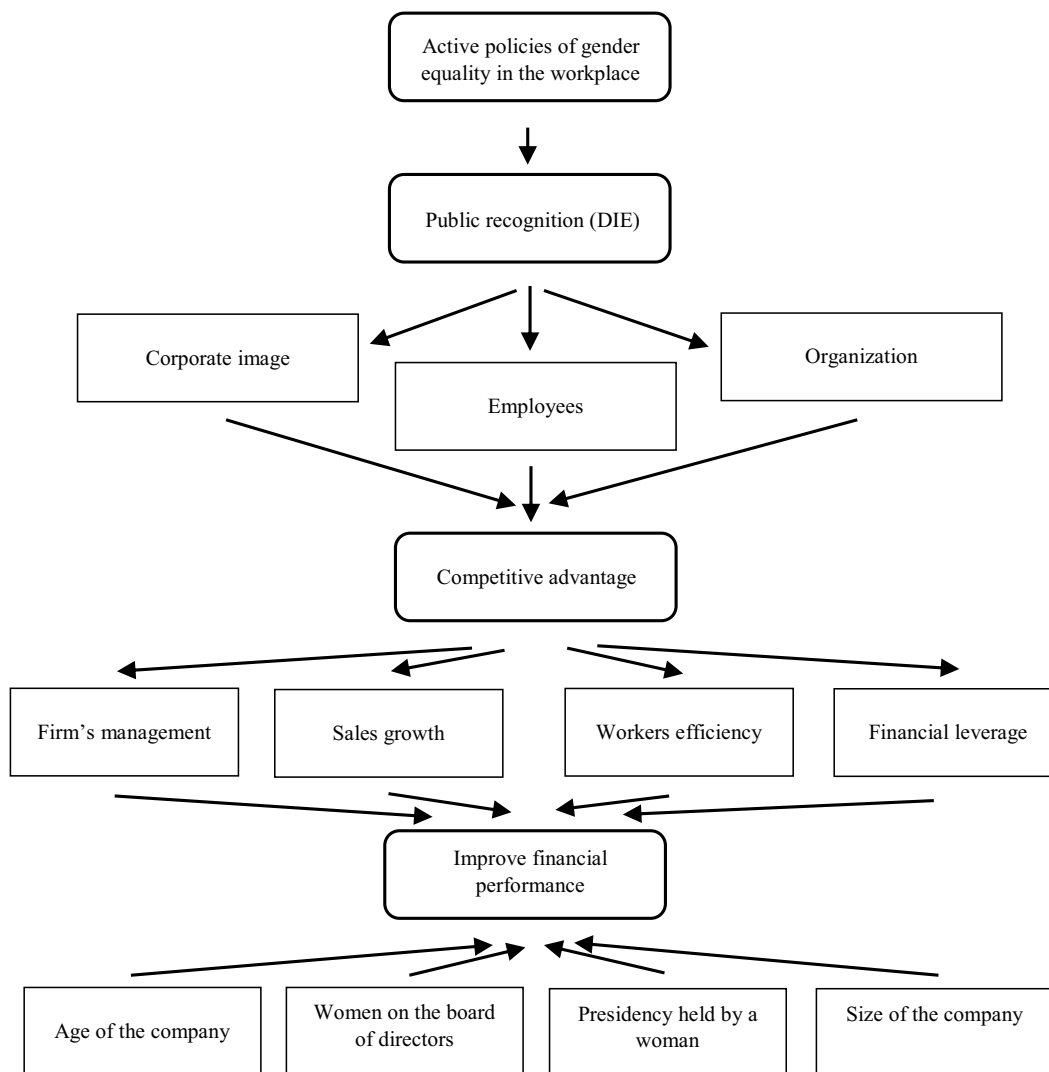


Fig. 1. Flow chart of the relationship between institutional recognition of gender equality and financial performance.

Directive 2012/0299 (COD), a balanced composition is understood as the presence of men and women where at least 40% of each sex is represented, but not > 60%.

One important provision in this law is the creation of a seal of distinction awarded to companies that apply policies of equal working conditions for women and men. In this regard, the Royal Decree 1615/2009, created the distinction of equality in the company (DIE). This seal of distinction can be applied for annually and aims to give institutional recognition to entities that have distinguished themselves by adopting equality policies among their workers. Unlike the quota policy, which applies a sanction to promote gender equality, the purpose of this distinction is to positively motivate companies. In this way, it would present an image of companies involved in labor concerns and responsible for the consequences and impact of their actions. However, to obtain this distinction, the law establishes a series of requirements. First, there should be a balanced presence of women and men in management positions, and in the professional groups and categories of the company. Second, they should adopt equality plans or other innovative measures that promote gender equality. Third, non-sexist advertising of the company's products or services.

Companies interested in applying for the distinction must provide a report that includes the adoption and implementation of equality measures, as well as quantitative information about the established wage structure. Once it is granted, awarded companies must submit an

annual report to confirm that they maintain the same level of equality in the workplace which they received recognition for. The main criteria that are valued for granting the seal of distinction are those concerning the implementation of an equality plan, the balanced participation of men and women in decision-making, as well as access to positions of greater responsibility. In addition, an evaluation is made of the establishment of remuneration systems that allow for equitable compensation for work, as well as actions relating to the reconciliation of family and professional life.

Institutional recognition of gender equality and financial performance

As stated at the beginning of this paper, gender equality in the workplace could become a highly important competitive strategy variable (Armstrong et al., 2010; Kotiranta et al., 2007). Through gender equality in the workplace, organizations could reach a “win-win”, position, where there are simultaneous benefits for workers and companies. Workers would benefit from equality actions adopted and companies could obtain economic and financial benefits. In this sense, as is apparent in other areas of business management (Heras-Saizarbitoria & Boiral, 2011), companies could obtain competitive advantages through an objective and generally accepted distinction that recognizes the implementation of gender equality measures. With this in mind, public entities in Spain defined the DIE as a means of

recognizing companies that adopt measures to achieve equal opportunities for their female workers.

Institutional acceptance and recognition of gender equality in the workplace can lead to competitive advantages that generate both internal and external benefits for organizations (Armstrong et al., 2010). This is achieved by legitimizing and guaranteeing that the company is in fact implementing active policies of gender equality in the workplace. Internally, it can increase job satisfaction, organizational efficiency and the consumption of resources (Armstrong et al., 2010). And, externally the company's public image and reputation can be improved, leading to a better valuation by the market and a better reputation with customers and investors. These are internal and external benefits which can ultimately improve financial performance (Bennouri et al., 2018; González et al., 2018; Terjesen et al., 2016).

Unlike previous studies, this study analyzes whether distinctions awarded by public bodies in recognition of gender equality in the workplace can create competitive advantages that positively influence a company's financial performance. More reliable and consistent results can be obtained by using this variable rather than the more usual variables of percentage or number of women on the boards of directors and in top management of the companies. In fact, this recognition represents gender equality in the workplace better and more directly, since the concession of this distinction guarantees that a firm has indeed adopted active policies of gender equality. This circumstance allows us to affirm that it could have an external effect on the company's image and an internal effect on the workers, the organization and ultimately on financial performance. In order to evaluate whether the institutional recognition of gender equality in the workplace positively affects financial performance, this variable has been compared in the period prior to and subsequent to obtaining the distinction. Therefore, the initial hypothesis is presented below:

Ho. The institutional recognition of gender equality in the workplace positively influences the financial performance of companies.

To contrast this hypothesis, an analysis has been carried out on how the Spanish public recognition of gender equality in the company (the DIE), influences financial performance. The impact of DIE on financial performance (see Fig. 1), is measured by the effect of recognition through the DIE on the following explanatory variables; how efficiently directors manage the company, sales, financial leverage and worker efficiency (Hernández et al., 2016; Post & Byron, 2015). In addition, given that the effects of recognition on financial performance can vary according to the company's characteristics, the age and size of the company are also considered (Pasaribu, 2017; Post & Byron, 2015; Hernández et al., 2016). Also, as women's presence in management posts has been shown to influence company performance, the following variables, used in previous studies on gender equality in the workplace, are included: number of women on the board of directors and if the position of presidency is held by a woman (Baldrich, 2019; Ionascu et al., 2018).

Methodology

Sample

The population considered was the companies awarded with DIE. According to the registry of the Ministry of Health, Social Services and Equality (2016), five years were available for the stage prior to its concession (Pre-DIE) and five years for the subsequent period (Post-DIE). As the first seal of distinction was awarded in December 2010 and the annual reports available were those for 2016, the result was a population of 30 companies. The sample, 22 companies, was extracted through a simple random sample, with a significance level of 95% and a sample error of 5%. The sample obtained comprises mostly private companies, 20 (90.91%). 13 belong to the tertiary sector of the economy (59.09%), 2 to the primary sector and 7 to the secondary

sector. As in the studies by Pucheta and Sánchez (2013), Garba and Alilyu (2014) this sample provided 220 observations that served to contrast the hypothesis presented in this study.

Variables

As indicated above, return on assets (ROA = net income/total assets) will be used to measure the financial performance of companies. ROA is viewed by many researchers as a stable variable and more indicative of the efficient use of an organization's facilities (Kotiranta et al., 2007; Krishnan & Park, 2005). Additionally, ROA is the indicator commonly used to measure the financial performance of organizations (Baldrich, 2019; Pasaribu, 2017). And based on previous studies by González et al. (2018), Baldrich (2019), ROA is also the dependent variable commonly used to measure financial performance in research about gender equality.

The explanatory variables included for ROA are: sales, financial leverage, workers efficiency and how efficiently directors manage the company. According to the works summarized in Table 1, the following ratios have been defined to measure these variables: revenue growth (RG = (operating income_t - operating income_{t-1})/(operating income_{t-1}); debt ratio (DEBT R = total liabilities/total assets); efficiency per worker (EW = net sales/staff expenditure), and return on equity (ROE = net income/shareholder equity). The analysis of the set of defined ratios makes it possible to acquire a deeper understanding of the impact of DIE on the organizations.

As the characteristics of the companies determine how far gender equality influences financial performance (Pasaribu, 2017; Post & Byron, 2015), control variables have also been included: the continuous variable age of the company (AGE = number of years since it was constituted) and company size (SIZE = logarithm of the number of employees). Also, as women's presence in management posts is shown to affect financial performance (Bennouri et al., 2018; Lückerath-Rovers, 2013), the variables used in previous studies on gender equality in the workplace are included: number of women on the board of directors (WOB), and the dichotomous variable of whether the position of presidency is held by a woman (PRES).

As noted previously, two different periods have been established: Pre-DIE and Post-DIE. A dichotomous variable has been defined that distinguishes whether the company belongs to the post-DIE recognition stage or not. Table 3 shows the groups of companies and the observations corresponding to each of the control variables defined.

Table 3
Number of firms and observations by control variable.

Variable	Classification	N° of firms	N° of observations	%
Size	Small and medium	5	50	22.73%
	Large	17	170	77.27%
Women on the board of directors	0	10	100	45.45%
	1	7	70	31.82%
	2	2	20	9.09%
	3	2	20	9.09%
	4	1	10	4.55%
Firms led by a woman	Yes	3	30	13.64%
	No	19	190	86.36%
Years of the firm	0-20	0	0	0.00%
	21-40	11	110	50.00%
	41-60	6	60	27.27%
	61-80	4	40	18.18%
	81-100	1	10	4.55%

Table 4
Descriptive statistics.

Ratio	Statistic	Period	
		Pre-DIE	Post-DIE
ROE	Mean	6,84%	10,89%
	Median	10,66%	9,08%
	Standard deviation	38,38%	28,10%
ROA	Mean	2,34%	3,09%
	Median	3,66%	3,22%
	Standard deviation	11,19%	13,04%
DEBT R	Mean	2,02	2,34
	Median	1,44	1,85
	Standard deviation	1,73	2,31
RG	Mean	4,90%	6,39%
	Median	3,85%	1,03%
	Standard deviation	33,87%	39,24%
EW	Mean	0,36	0,32
	Median	0,22	0,25
	Standard deviation	0,42	0,25

Results and discussion

Pre and post DIE economic variables

The ratios corresponding to the companies awarded the distinction have been calculated through the annual reports of the 22 companies. The financial statements of the 22 companies were extracted from the database of the Iberian Balance Sheets Analysis System (SABI) (Bureau van Dijk, 2016). Table 4 shows the mean, median and standard deviation calculated for the period prior to recognition (Pre-die) and for the stage companies were institutionally recognized through the DIE (Post-die).

As can be observed in Table 4, the companies analyzed obtain better results after the seal of distinction has been granted. The best mean values reached in ROE and ROA show increases of 4.05% and 0.75% respectively. These results are in line with Adler (2001), who established a double hypothesis to justify this situation after measures aimed at gender equality are adopted in the workplace. While one explanation argues that the companies institutionally recognized through the DIE have higher returns, the other asserts that the entities with higher benefits have a certain amount of freedom to “experiment” with such mechanisms. In the same line, Hernández et al. (2016) indicate that for Spanish companies, gender equality measures in the workplace increase their economic profitability.

The increase of 0.32 experienced in the mean value of the entities' Debt ratio is in line with the study by Robb and Robinson (2010). They verified that in the United States companies run by women have a 5% lower external debt than those led by men. Hernández et al. (2016) obtained similar results, finding that boards with a higher percentage of women have a lower level of debt. In contrast to previous results, Redondo and Jimeno (2010) concluded that companies with lower rates of gender diversity have a higher debt ratio or ability to meet their debts. From another perspective, Usman, Zhang, Makki, and Khan (2019) revealed that gender diversity on the board of directors decreases the likelihood of insolvency.

Finally, the ratios of revenue growth and efficiency per worker show an increase of 1.49%, and a decrease of -0.04 respectively, reflecting a better performance in both values. In this regard, Caballero (2000) revealed that, by establishing family-responsible policies for reconciling work and family life, employees feel more committed to the company, resulting in a better employee performance.

DIE recognition and financial performance. A multivariate analysis

In order to contrast the hypothesis that postulates whether the institutional recognition of gender equality in the workplace positively

influences the financial performance of companies, a multiple linear regression with a panel data technique has been applied. As can be observed in Table 1, the panel data technique is the statistical analysis commonly used in the studies that analyze the relationship between gender equality in the workplace and financial performance. This technique allows us to take into consideration the interrelations of the variables studied. Following Erhardt, Werbel, and Shrader (2003), Kotiranta et al. (2007) for the development of the model, ROA has been considered as dependent variable, with the rest of the variables studied acting as independent. Additionally, to measure the effects of the dichotomous variables DIE and PRES on ROA, their interactions with ROE, EW, RG and DEB R have been included as explanatory variables. At this point of the analysis, and as in all the studies that analyze the relation between gender equality in the workplace and financial performance, the regression equation is introduced to contrast the hypothesis proposed. Observation of the equation is fundamental as it allows us to visualize and comprehend the relation between the dependent and independent variables, which will serve to contrast the hypothesis (Baldrich, 2019; Gordini & Rancati, 2017; Ionascu et al., 2018).

$$\begin{aligned}
 ROA_{it} = & \alpha_0 + \beta_1 ROE_{it} + \beta_2 EW_{it} + \beta_3 RG_{it} + \beta_4 DEBT R_{it} \\
 & + \beta_5 SIZE_{it} + \beta_6 WOB_{it} + \beta_7 AGE_{it} + \beta_8 DIE_{it} + \beta_9 PRES_{it} \\
 & + \beta_{11} DIE_{it} * ROE_{it} + \beta_{12} DIE_{it} * EW_{it} + \beta_{13} DIE_{it} * RG_{it} \\
 & + \beta_{14} DIE_{it} * DEBT R_{it} + \beta_{15} DIE_{it} * SIZE_{it} + \beta_{16} DIE_{it} * WOB_{it} \\
 & + \beta_{17} DIE_{it} * AGE_{it} + \beta_{18} PRES_{it} * ROE_{it} + \beta_{19} PRES_{it} * EW_{it} \\
 & + \beta_{20} PRES_{it} * RG_{it} + \beta_{21} PRES_{it} * DEBT R_{it} + \beta_{22} PRES_{it} * SIZE_{it} \\
 & + \beta_{23} PRES_{it} * WOB_{it} + \beta_{24} PRES_{it} * AGE_{it} + e_{it}
 \end{aligned}$$

where for “i” company and “t” year: ROA_{it} = net income_{it}/total assets_{it}; ROE_{it} = net income_{it}/shareholder equity_{it}; EW_{it} = net sales_{it}/staff expenditure_{it}; RG_{it} : (operating income_t - operating income_{t-1}/operating income_{t-1}); $DEBT R_{it}$ = total liabilities_{it}/total assets_{it}; $SIZE_{it}$ = Size of the company; WOB_{it} = women on the Board of Directors; AGE_{it} = Age of the company; DIE_{it} = 1 if it belongs to the stage subsequent to obtaining the DIE, 0 otherwise; $PRES_{it}$: 1 if the presidency is held by a woman, 0 otherwise.

Given that the sample under study comprises a heterogenous group of firms for the period analyzed, a contrast of the equations proposed in the hypothesis was carried out, according to Baldrich (2019), Gordini and Rancati (2017), Ionascu et al. (2018) through a linear regression analysis with panel data. As our sample involves repeated observations of the same firm over time, we use the fixed effects technique to control for unobserved firm heterogeneity. For the effects of unobservable heterogeneity corresponding to the specific characteristics of each individual firm and period, a dummy variable α_i was introduced for firm and year.

Since a high multicollinearity affects the accuracy and interpretation of the coefficients of the analyzed variables and their distribution, Table 5 shows the results of the Pearson correlation. As can be observed, according to Gujarati (2004), the variables that present a problem of multicollinearity due to the existence of a significant correlation coefficient between the variables higher than 0.8 are: DIE and DIE * SIZE (0.993), DIE and DIE * AGE (0.847), and between DIE * AGE and DIE * SIZE (0.821). The correlations where the variable PRES intervenes are: PRES and PRES * SIZE (0.999), PRES and PRES * AGE (0.987), and PRES and PRES * DEBT R (0.902). And finally, correlations between the interactions of PRES are: PRES * SIZE and PRES * AGE (0.982), between PRES * DEBT R and PRES * SIZE (0.905), PRES * DEBT R and PRES * AGE (0.847), and between PRES * EW and PRES * WOB (0.880). Nevertheless, the correlation of these variables is not present in the regression. In addition, since the variance inflation factors (VIF) are < 5, and the condition indices are < 10 this would indicate that there is no multicollinearity in the model (Kleinbaum, Kupper, Muller, & Nizam, 1998; Menard, 2002; Pedhazur, 1997).

Table 6 shows the result of the multivariate regression for the

Table 5
Pearson correlation test.

	1	2	3	4	5	6	7	8	9	10	11	12
(1) DIE	1											
(2) PRES	0.013	1										
(3) ROE	0.060	0.053	1									
(4) ROA	0.031	0.131	0.863**	1								
(5) DEBT R	0.078	0.063	0.002	0.127	1							
(6) EW	-0.056	-0.063	-0.175*	-0.152*	0.003	1						
(7) RG	-0.077	-0.034	0.125	0.174*	0.012	-0.080	1					
(8) SIZE	0.020	-0.285**	0.069	-0.021	-0.159*	0.081	-0.134*	1				
(9) AGE	0.111	0.008	0.357**	0.317**	0.006	-0.390**	0.133	-0.307**	1			
(10) WOB	0.107	0.196**	-0.165*	-0.130	0.008	-0.079	0.010	-0.358**	0.063	1		
(11) DIE * ROE	0.267**	0.020	0.586**	0.639**	-0.006	-0.168*	0.056	0.038	0.306**	-0.081	1	
(12) DIE * DEBTR	0.588**	0.044	0.018	0.075	0.701**	-0.050	-0.057	-0.113	0.063	0.087	0.130	1
(13) DIE * EW	0.672**	0.005	-0.096	-0.135*	0.042	0.345**	-0.062	0.061	0.117	0.083	-0.041	0.382**
(14) DIE * RG	0.115	0.006	0.136*	0.192**	-0.025	-0.025	0.348**	-0.090	0.117	0.042	0.242**	0.033
(15) DIE * SIZE	0.993**	-0.011	0.063	0.028	0.057	-0.050	-0.083	0.100	0.085	0.076	0.271**	0.563**
(16) DIE * AGE	0.847**	0.013	0.184**	0.138*	0.054	-0.166*	-0.036	-0.098	0.462**	0.063	0.441**	0.491**
(17) DIE * WOB	0.569**	0.178**	-0.042	-0.042	0.070	-0.023	-0.032	-0.185**	0.023	0.664**	0.029	0.359**
(18) PRES * ROE	-0.005	0.517**	0.220**	0.427**	0.149	-0.104	-0.015	-0.126	-0.039	0.034	0.224**	0.109
(19) PRES * DEBTR	0.035	0.902**	0.105	0.274**	0.147*	-0.040	-0.026	-0.244**	-0.024	0.225**	0.104	0.116
(20) PRES * EW	0.040	0.709**	-0.014	0.028	0.064	0.159*	-0.023	0.026	0.026	0.361**	-0.027	0.072
(21) PRES * RG	0.014	0.140*	0.008	0.028	0.021	-0.005	0.178**	-0.034	-0.002	0.056	-0.024	0.015
(22) PRES * SIZE	0.015	0.999**	0.054	0.133*	0.064	-0.065	-0.034	-0.280**	0.005	0.194**	0.022	0.048
(23) PRES * AGE	0.033	0.987**	0.039	0.094	0.041	-0.051	-0.035	-0.296**	0.028	0.201**	0.012	0.044
(24) PRESxWOB	0.090	0.753**	0.011	0.064	0.084	0.094	-0.018	-0.222**	0.016	0.425**	0.003	0.103
(13) DIE	1											
(2) PRES	0.050	1										
(3) ROE	0.676**	0.098	1									
(4) ROA	0.398**	0.177**	0.821**	1								
(5) DEBT R	0.394**	0.099	0.530**	0.451**	1							
(6) EW	-0.069	-0.033	-0.015	-0.024	0.020	1						
(7) RG	0.043	0.009	0.014	0.016	0.207**	0.680**	1					
(8) SIZE	0.212**	0.072	0.021	0.039	0.303**	0.175**	0.108	1				
(9) AGE	0.081	0.081	0.007	0.020	0.073	0.080	0.152*	0.108	1			
(10) WOB	0.006	0.004	-0.008	0.013	0.179**	0.905**	0.704**	0.704**	0.141*	1		
(11) DIE * ROE	0.022	0.016	0.006	0.039	0.197**	0.847**	0.727**	0.727**	0.134*	0.982**	1	
(12) DIE * DEBTR	0.176**	0.041	0.065	0.079	0.376**	0.755**	0.880**	0.880**	0.149*	0.750**	0.756**	1

Significance level based on two-sided tests.

* $P < 0.10$.

** $P < 0.05$.

Table 6
Multivariate regression results.

Variables	B	SEB	β	t
Intercept	-0.009	0.006		-1.381
ROE	0.251	0.013	0.700	19.600***
DEBT R	0.003	0.002	0.050	1.734*
DIE * ROE	0.101	0.021	0.175	4.842***
DIE * EW	-0.050	0.016	-0.096	-3.076***
DIE * RG	0.028	0.012	0.067	2.285**
PRES * ROE	0.239	0.055	0.177	4.346***
PRES * DEBT R	0.010	0.005	0.078	1.943*
Fixed effect variables	Included			
Observations	220			
AdjR2	0.846			

Significance level based on two-sided tests.

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.01$.

analysis of the association of ROA with the four explanatory variables and with the five control variables. In line with the previous studies, the adjusted R2 is 0.846; therefore, the model presents a goodness of reasonable adjustment for the data observed from the sample.

As shown in the results, the regression indicates that ROE (0.251) has had a positive influence on ROA for entities in the period prior to granting the DIE. In companies that have been recognized through the DIE, the influence on ROA of how effectively the directors manage the company is higher than in the firms that have not been recognized. This is indicated by the interaction DIE * ROE, since it would be the sum of $0.251 + 0.101 = 0.352$. The same occurs for companies where the presidency has been held by a woman, with a higher influence on the value of the interaction PRES*ROE (0.239). The effect of ROE on ROA in companies where the presidency has been occupied by a woman is $0.239 + 0.251 = 0.49$. Consequently, for a company recognized through the DIE and where the presidency has been occupied by a woman, the positive effect of ROE on ROA will be greater than for a company that does not have these characteristics, since it will be the sum of $0.251 + 0.101 + 0.239 = 0.591$. According to Erhardt et al. (2003), Krishnan and Park (2005) a better corporate performance achieved through a female leadership style leads to a greater ROA. In the Spanish context, Hernández et al. (2016) showed that the presence of women in top management positions increased the profitability of these companies.

For its part, the effect of DEBT R on ROA has been found to be positive (0.003); the fact that the company has been awarded the DIE does not make any difference. It is in the companies led by a woman where a higher positive effect can be appreciated, since the interaction PRES * DEBT R (0.010) appears in the regression. Thus, in the companies led by a woman the effect of DEBT R on ROA is $0.003 + 0.010 = 0.013$. In this regard, Coleman and Robb (2009) argued that female entrepreneurs use sources of external funding less frequently than men. Likewise, Pelger and Tchouvakhina (2013) are also more cautious about resorting to this financing.

With regard to efficiency per worker, it has been revealed that in the stage when companies do not have DIE recognition, there is no relation with ROA. Nevertheless, in the period of DIE certification, it has been observed that an increase in efficiency per worker (worsening of the ratio) has negatively affected ROA (DIE * EW = -0.050). This would indicate that, after the granting of the DIE an improvement in efficiency per worker (decrease in the ratio) has had a positive impact on ROA. In this sense, there are numerous authors (Konrad & Mangel, 2000; Martínez, Calvet, Gallego, Lusa, & Pons, 2006) who have argued that the implementation of actions aimed at achieving equal opportunities in the workplace increases the motivation and commitment of female and male workers. In this sense, Armstrong et al. (2010) pointed out

that the implementation of equality policies is positively related to an improvement in workers' productivity and a decrease in employee turnover. From another perspective, Memon and Jena (2017) showed that the existence of gender inequality in the workplace reduces female workers' motivation and satisfaction.

The same result has been found with respect to revenue growth, where it has been shown that, for companies with DIE (DIE*RG), revenue growth has a positive impact on ROA (0.028). According to Caballero (2000), customers can benefit from the improvement of the public image of companies committed to the establishment of family and labor conciliation measures, which also comply with the legislation in force. In this regard, Martínez et al. (2006) argued that the improvement of the corporate image generated by the incorporation of gender equality measures leads to more consumers becoming interested in acquiring a company's products.

Of the four variables that do not appear in the model because they have no relation with ROA, WOB should be mentioned because of its link to and direct impact on gender equality in the workplace. In line with the results obtained by Haslam et al. (2010), Pucheta and Sánchez (2013), and Pasaribu (2017), there is no evidence of a significant increase between financial performance and female representation in top management positions or gender diversity on the boards of directors. Some of the main reasons that authors give to justify this situation are: the low percentage of women in top management positions; the short period of time that these women have occupied these positions; and the fact that women are still relegated to the background in spite of holding positions on the boards of directors.

Finally, in view of the results, the hypothesis would be accepted. The institutional recognition of gender equality in the workplace positively influences the financial performance of companies. In companies institutionally recognized through the DIE, the effect of ROE, EW and RG on ROA is positive and higher than those that have not been recognized. In addition, this result could also be due to whether a company is led by a woman, since ROE and DEBT R positively affects ROA in the entities where the presidency is held by a woman. In contrast, for the companies where women do not occupy this position, no relation is observed between these variables.

Conclusions

This study aimed to analyze whether institutional recognition of companies noted for having adopted active policies of gender equality in the workplace has favorably influenced their financial performance. In this sense, unlike previous studies, this investigation has not just carried out an exclusive study of the effects of a single variable linked with gender equality. In fact, it has also analyzed the impact of a set of variables and their interactions, measured through an objective tool, which is recognition through the DIE. Through the comparison of these variables, a deeper analysis has been made of the impact of gender equality in the workplace on financial performance. Taking into consideration the results obtained in the multivariate analysis and with regard to the independent variables, the hypothesis proposed is accepted.

The results of the study have determined that after being institutionally recognized through the DIE, there is a positive influence on ROA, primarily by ROE, EW and RG. In line with these results, it has also been observed that DEBT R and ROE have a greater influence on ROA after women occupy the position of presidency compared to the period when they did not. Apart from being an award that recognizes and encourages these types of measures, the DIE has been shown to have other advantages. It is also a useful tool for gaining competitive advantages that improve business management and corporate image, and favorably affects financial performance. The DIE can increase the workers efficiency, improve how efficiently directors manage the company and can have a positive effect on sales. Taken together, this can have a positive effect on financial performance.

The results of this research are relevant for managers, since they reveal that the institutional recognition of equality has a positive impact on three aspects of a firm: gender equality within the workplace, the company's external reputation and internal efficiency. This distinction may also be used for advertising purposes, leading to a better corporate image. Another important point to note is how new business opportunities are created after a company has been awarded this distinction. On the one hand, the DIE can improve the company's reputation and increase its sales. On the other hand, as stipulated in the regulations of the Public Administration contracts, having this seal of distinction will be positively valued as regards any contracts with the Public Administration. However, the DIE is not merely a commercial distinction, having this award also contributes to improving the efficiency of the workers and the organization, and consequently increases its financial performance.

The scope of this research is not only confined to the private sector, but it could also be useful for Public Administrations. They would become aware of how resources and actions carried out to promote gender equality policies in the workplace are a showcase for transmitting how gender equality is profitable. And not only this, it would also be an indicator of how participation in this issue by such institutions is an effective action to take. Apart from financing research that analyzes its impact on organizations, the promotion of these public initiatives can initially serve to encourage an active response from companies that are unaware of gender equality in the workplace and its economic implications. This initial approach could lead to a gradual progress in raising awareness, and ensuring that gender equality is definitively established in firms. In this regard, another relevant conclusion can be drawn from the results obtained in this analysis. Public Administrations should reflect on the role they want to play in sensitizing companies to this issue. They should consider whether they want to have a negative role, focused on companies achieving gender equality through legislative sanctions. Or take on a positive attitude, focused on recognizing and awarding companies who have adopted gender equality measures in the workplace. In view of the results obtained to date, perhaps it is time to opt for a positive attitude. In this regard, Public Administrations should create, at national and international level, a public seal of distinction that certifies companies which promote gender equality in the workplace.

It is also important to stress that these results are of interest to investors and costumers. Investment in companies institutionally recognized for having implemented gender equality measures in the workplace implies a greater profitability for investors. On the other hand, these results may also attract a type of investor and customer whose decisions are not only based on economic and financial aspects. They would be investors and clients sensitized to gender equality, who prefer to invest in and buy from companies recognized by public bodies after the implementation of gender equality measures. Finally, this study is of interest to researchers, as it presents a new line of investigation with regard to the relationship between economic and financial performance and the institutional recognition of gender equality policies. In this case, by incorporating public recognition in the study, the impact of public policy aimed at promoting gender equality in the workplace is analyzed from a new perspective. This has led to an analysis of the problem of gender inequality in the workplace which has a broader vision and greater depth. This study is not limited to just analyzing gender equality at high management levels and the composition of the boards of directors. As it focuses on the institutional recognition of gender equality, this implies considering the company as a whole. In this sense, all areas, units, environments and organizational levels of the company are included.

Among the limitations that have emerged in this study, which could also become future lines of research, one aspect that should be noted is the limits related to the time series. They have been conditioned by the fact that the number of financial periods analyzed corresponded to only three calls to apply for the DIE. As there will be more calls to apply and

more awards will be granted, there will be a greater number of companies and financial years which will enable a more in-depth analysis to be made. In addition, it will be possible to broaden the perspectives this study can address, investigating the effects by sector, size, type of activity, countries. It would also be interesting to make a comparison with companies that have not been recognized institutionally for developing actions of gender equality in the workplace.

Declaration of competing interest

None.

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