

**Type of Contribution:** Paper

**CEO WOMEN IN SPANISH PUBLISHING FIRMS: DETERMINANTS  
AND INFLUENCE ON RISK AND PERFORMANCE**

**Juan Francisco MARTÍN-UGEDO**

University of Murcia  
Department of Management and Finance  
Campus de Espinardo, s/n  
30100 Murcia (Spain)  
e-mail: [juanfran@um.es](mailto:juanfran@um.es)  
telephone: +34 868883837

**Antonio MINGUEZ-VERA**

University of Murcia  
Department of Management and Finance  
Campus de Espinardo, s/n  
30100 Murcia (Spain)  
e-mail: [minver@um.es](mailto:minver@um.es)  
telephone: +34 868888477

**Luis A. PALMA-MARTOS**

University of Seville  
Department of Economy and Economics History  
Avda. Ramón y Cajal, 1  
41018 Seville (Spain)  
e-mail: [lpalma@us.es](mailto:lpalma@us.es)  
telephone: +34 954557525

**Abstract:**

The study examines the influence of CEO gender on return and risk for a sample of Spanish publishing firms. It also studies the determinants of the presence of women as a CEO. The publishing sector is relevant in terms of production (1% of national GDP and 38.2% of cultural GDP), because of its positive contribution to the trade balance of the cultural sector, estimated to be 230.4 million Euros, and because it plays a key strategic role in a knowledge based society. The sample examined includes 2,157 Spanish publishing firms. The methodology employed to examine the influence of CEO gender on return and risk is Three Stage Least Squares (3SLS). To analyze the determinants of the presence a woman as CEO Probit methodology has been employed. The results show that when the CEO is a woman, the firm has greater returns and lower debt levels and a lower degree of financial leverage. The study of the determinants of whether a woman is the CEO shows that firms with higher returns are more likely to have a woman as CEO. We also find that the firm's financial risk, measured by the debt ratio, has a negative influence on the presence of a female CEO. There is an increasing literature focusing on gender in economics and management. However, to our knowledge there are no studies examining the influence of women as CEOs on the returns and risk for publishing firms.

**JEL Classification:** J16, G32.

**Keywords:** Gender, publishing firms, performance, risk

## 1. Introduction

Choosing the cultural sector as the target of the present study from the economic and management perspective is justified in the case of Spain for at least two reasons. The first is its size, both in terms of its contribution to GDP (2.5%, or 3.4% if all economic activities linked to intellectual property are taken into account), and of employment (2.8% of all employment)<sup>1</sup>. The second reason is the key strategic role which the cultural sector plays in a knowledge based society. In such a society, culture based creativity is one of the fundamental cornerstones of innovation and growth.

Within the broad field that is the cultural sector, our study explores the impact of CEO gender on return and risk in the publishing industry. This sector represents an average of 1% of national GDP and 38.2% of cultural GDP over the period 2008-2012, according to the Satellite Account on Culture in Spain (MECD 2014b). There is a 2.8% drop in this figure during that period. In early 2013, the Central Business Register (Spanish acronym – DIRCE 2013) reported that 8,326 firms operated in the publishing industries, out of a total of 108,556 in the cultural sector as a whole, which means that publishing accounts for 7.7% of the total. Eleven percent of publishing firms employed more than five workers and a mere 1.9% more than fifty. In terms of employment, the sector accounts for 11% of cultural employment (Labour Force Survey, Spanish acronym - EPA, annual mean, from INE 2013).

One of the characteristics of the Spanish publishing sector is that firms are mainly public or limited companies – 71.9%, compared to 35.6% of firms with that legal status in the cultural sector as a whole<sup>2</sup>.

From the standpoint of consumption, two points underpin the importance of the publishing sector. According to the Household Budget Survey (European Communities 2013), spending on books and periodicals accounted for 15.8% of spending on culture, which in turn represents 8.5% of total expenditure. Mean household expenditure on culture was 673.3 Euros, and 265.7 Euros per person. In 2010, this figure stood at 343.7 Euros. It is also worth noting that reading is the second main cultural practice, and is something which 58.7% of the population engages in. The first is listening to music, 84.4%, and the third is going to the cinema, 49.1%. (2010-2011 Survey into Cultural Habits and Practices. MCU 2011).

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<sup>1</sup> Data are taken from the 2014 Cultural Statistics Yearbook. Ministry of Education, Culture and Sport (MECD, 2014a).

<sup>2</sup> Data taken from the Central Business Register (DIRCE, 2013).

Another key feature of the publishing sector is its crucial role in foreign trade. According to data from the State Agency for Tax Administration, the positive balance in the cultural sector trade in 2013 was 36.5 million Euros, with exports of 703.4 million. The publishing sector's contribution to exports was 522.4 million, the positive balance being 230.4 million, highlighting its key role in the overall balance.

Finally, and in an effort to reflect the interest in exploring returns and risk in the publishing sector, it should be pointed out that the turnover index in the sector fell from 100 in 2010 to 83.6 in 2013, according to MECD data (2014a).<sup>3</sup>

Our analysis of the returns and risk in the publishing sector is carried out from the perspective of gender. The impact of women in top management positions has been the subject of many studies. The presence of women in top posts becomes a topical issue in the social domain as well as in the academic field. As a result, over the last few years there has been pressure from society to include women in key posts in firms. For instance, the average number of women sitting on boards of directors has risen throughout Europe, although female representation remains low compared to the USA, and major differences exist between countries (Heidrick and Struggles 2007).

Evidence shows that women can play an important role in work practices and, consequently, on company performance (Kesner 1988; Bilimoria and Piderit 1994; Daily et al. 1999; Farrell and Hersch 2005). Nevertheless, evidence relating to the link between gender diversity and financial performance remains scant (Carter et al. 2010). The current work contributes evidence to virtually non-existent literature in the matter<sup>4</sup>.

The results show that the presence of a woman as CEO leads to larger Returns on Assets and Returns on Equity in firms in the sector. The presence of a female CEO also reduces the debt level as well as the firm's degree of financial leverage. We also find that firms with higher returns and with lower levels of debt are more likely to have a woman as CEO.

The remainder of the work is structured as follows. The second section sets out the theory and hypotheses. The sample, data and methodology are described in Section Three. Finally, the results and main conclusions are summed up in Sections Four and Five, respectively.

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<sup>3</sup> In 2012, turnover at market price was 1.840.5 million Euros (Observatorio de la Lectura y el Libro 2013).

<sup>4</sup> We have found one study which explores the publishing sector from the environmental perspective, but none addressing gender. See the Regional Ministry of Agriculture, Fishing and Environment. The Regional Government of Andalucía, Junta de Andalucía (2012).

## 2. Theory and hypothesis

The gradual incorporation of women into management posts in firms, and the introduction in many countries, including Spain, of gender equality laws, has sparked interest amongst researchers in the presence of women in top management positions (Heidrick and Struggles 2007; Carter et al. 2003; Campbell and Mínguez 2008). In Spain, a number of measures have been implemented in an effort to ensure equal opportunities between men and women in a range of social areas. Such measures include the Unified Code of Good Governance, Código Unificado de Buen Gobierno, CNMV (2006) which urges positive discrimination towards women so as to balance the representation of men and women on boards of directors and the Law on Equality, Ley de Igualdad (2007), which aims to secure a 40% female presence on the boards of companies employing over 250 workers. However, these are merely recommendations and are focused on large firms.

Women's qualifications have improved enormously in recent decades although this increase has outstripped their involvement in management positions in firms (Farrell and Hersch 2005). Such scant involvement is due to a barrier which hinders women in their job aspirations (Salinas and Romaní 2014), the so-called "glass ceiling". Among other reasons, these barriers may be explained by family circumstances which make women more inclined to interrupt their professional career (Doeringer and Piore 1971), the role of women in the capitalist system whereby they suffer poorer working conditions (Engels 2002) or because certain jobs are traditionally associated with either men or women (Benhabib and Cornella 1990).

With regard to the different functions in company management, Loden (1985) points to women being oriented to qualitative terms and men to quantitative terms, so that women are better at accomplishing specific tasks. This leads her to state that women exert a positive influence on functions related to corporate social responsibility and strategic control.

In addition, Hillman et al. (2002) and Daily and Dalton (2003) state that women offer unique perspectives, experiences and styles of work compared to their male counterparts. A woman's presence may enhance discussions since her style of communication is more participative and process oriented. Such presence also promotes a more creative discussion and that may embrace a wider range of strategic options and interests, and include clients' needs. Finally, a female presence may also enhance the company's image, which would have a positive knock-on effect on clients' behavior (Smith et al. 2006).

On the other hand, a female presence in top management in firms may also have a negative impact. For example, women relate less with managers in other companies (Zelechowski and Bilimoria 2004), and are less likely to actually do business (Kesner 1988).

Finally, certain authors point to the possibility of women's presence in top management positions in companies having no influence on firms' performance. They argue that female managers reject feminine stereotypes and values and, as a result, behave like male managers (Powell 1990; Brancato and Patterson 1999; and Adams et al. 2002).

Previous empirical evidence exploring the impact of women's presence in top management positions on company performance in the USA is not conclusive, although it does tend to support a positive relationship (Shrader et al. 1997; Erhardt et al. 2003; Catalyst 2004; and Welbourne et al. 2007, among others). By contrast, other authors have failed to find any relationship (Watson et al., 1993; Richard, 2000; and Farrell and Hersch 2005) or have observed a negative relationship (Adams and Ferreira 2009).

The evidence for Europe has also failed to prove conclusive. Campbell and Mínguez (2008) find a positive effect of the presence of women in top management positions on the value of the company for listed firms. Du Rietz and Henrekso (2000), for a sample of Swedish firms, and Smith et al. (2006) and Rose (2007) for Danish companies, report no influence of the presence of women in top management on performance. However, Böhren and Ström (2007) confirm a negative relationship for the presence of women and company value for a sample of Norwegian firms.

In line with the bulk of prior evidence pointing to a positive influence of the presence of women in top management on company performance, the following hypotheses are posited:

Hypothesis 1.1 (H1.1): Publishing companies whose CEO is female have greater Returns on Assets, ROA.

Hypothesis 1.2 (H1.2): Publishing companies whose CEO is female have greater Returns on Equity, ROE.

Another characteristic feature of women is their greater aversion to risk<sup>5</sup> (Chaganti, 1986; Collerette and Aubry 1990; Olsen and Currie 1992; Scherr et al. 1993; Jianakoplos and

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<sup>5</sup> It should be pointed out that risk is an inherent feature in the cultural industry and of course in the publishing sector, which might bias the decision to work in the field compared to options in other, more secure, sectors.

Bernasek 1998; DiBerardinis et al. 1984; among others). In this vein, Olsen and Cox (2001) investigated gender differences in attitudes towards risk for investors with a professional background and found that female investors weigh up risk attributes such as the possibility of loss and ambiguity to a greater extent than their male counterparts. The World Bank Report on Women (2012) also shows that women tend to be more careful and to display less ambition. Carter and Shaw (2006) found that the presence of women in management is linked to lower debt levels. For the Spanish market, Hernández-Nicolás et al. (2015) report that the presence of women in decision-making tends to lead to lower debt levels with lower cost and longer term debt.

Finally, Lundeberg et al. (1994) suggest that women are less sure about their investment decisions. This difference in confidence also leads to differences in risk behavior.

In line with most of the arguments regarding the low debt levels of firms managed by women and their preferences concerning risk, we formulate the following hypotheses:

Hypothesis 2.1 (H2.1): Publishing companies whose CEO is female have a lower debt level.

Hypothesis 2.2 (H2.2): Publishing companies whose CEO is female have a lower level of financial leverage.

Hypothesis 3 (H3): Publishing companies whose CEO is female have a lower level of economic leverage.

As will be shown later, for our sample (and in most countries and sectors) there are relatively few women CEOs. Discrimination and the possibility that the abilities of female candidates are not correctly assessed may explain such a small number of women CEOs. However, this is not the only factor that may influence the presence of a woman as a CEO. Another factor is that there is a reduced pool of female candidates (Farrell and Hersch 2005; Mateos del Cabo et al. 2011). One possible explanation for this reduced pool of female candidates is occupational segregation. That is, women usually work in departments like human resources or marketing, but there are fewer women in finance and production positions, the latter being functions that are usually represented in top management positions. Another possible explanation is family responsibilities that may influence the interruption of women's professional development in favor of their family life. According to the Spanish

Woman's Institute, in 2006, 97 percent of people who were not seeking employment for family reasons were women (Mateos del Cabo et al. 2011).

As a consequence of the reduced pool of female candidates, the demand for such women will outstrip supply, with the result that the women concerned will be able to choose where to work and they will choose more successful and profitable companies (Adams and Ferreira 2009).

This suggests Hypothesis 4 (H4): The returns of publishing companies will have a positive influence on the presence of a woman as CEO.

If, as noted here, women executives are better placed to choose the companies that they work for, they may also choose firms that suit their preference for reduced levels of risk:

Hypothesis 5.1: The financial risk of publishing companies will have a negative influence on the presence of a woman as CEO.

Hypothesis 5.2: The operational risk of publishing companies will have a negative influence on the presence of a woman as CEO.

### 3. Sample, data and methodology

The empirical study is carried out using the SABI database (The Iberian Balance Sheet Analysis System created by Bureau Van Dijk). This database provides accounting information for Spanish and Portuguese companies, obtained from the annual published accounts. The sample includes 2,157 publishing firms for the year 2013.<sup>6</sup> The initial database was filtered to eliminate companies that had negative equity and firms whose total assets or total liabilities were not equal to the sum of their components.

To analyze the effect of the gender of CEO on firm returns and firm risk, several dependent variables are considered. First, firm performance is measured by return of assets (ROA). The following model is proposed:

$$ROA_i = \beta_0 + \beta_1 WCEO_i + \beta_2 END_i + \beta_3 LFSIZE_i + \beta_4 LFAGE_i + u_i \quad (1)$$

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<sup>6</sup> In Spain, 4% of the largest firms account for over 64% of the business (Obsevatorio de la lectura y el libro 2013, Bedate et. al 2014).

where WCEO is a dummy variable that takes a value of one when the CEO is a woman and zero otherwise. We consider several control variables (Farrell and Hersch 2005): END (debt ratio, calculated as total debt divided by total assets); LFSIZE (the logarithm of total assets as a measure of firm size) and LAGE (the logarithm of the firm age).

In the second model, we introduce ROE (return on equity) as an alternative measure of the firm's returns:

$$ROE_i = \beta_0 + \beta_1 WCEO_i + \beta_2 END_i + \beta_3 LFSIZE_i + \beta_4 LFAGE_i + u_i \quad (2)$$

To study the relationship between the gender of the CEO, WCEO, and firm risk we include three models. In the first, the dependent variable is the debt ratio (END), as a measure of financial risk:

$$END_i = \beta_0 + \beta_1 WCEO_i + \beta_2 ROA_i + \beta_3 LFSIZE_i + \beta_4 LFAGE_i + \beta_5 INTAS_i + \beta_6 DEBCOS_i + \beta_7 INCO_i + u_i \quad (3)$$

The control variables are (Hernández-Cánovas et. al 2016): ROA, LFSIZE, LFAGE (defined above), the ratio of intangible assets, INTAS (calculated as the sum of intangible asset divided by total assets), the cost of the debt, DEBCOS, defined as the ratio of financial expenses to total debt, and the interest coverage ratio, INCO, obtained as earnings before interest and taxes (EBIT) divided by financial expenses.

In the following model we include the degree of financial leverage (DFL) as an alternative measure of financial risk:

$$DFL_i = \beta_0 + \beta_1 WCEO_i + \beta_2 ROA_i + \beta_3 LFSIZE_i + \beta_4 LFAGE_i + \beta_5 INTAS_i + \beta_6 DEBCOS_i + \beta_7 INCO_i + u_i \quad (4)$$

Following Yagüe (1987) and Azofra et al. (1997), we calculate this variable as:

$$DFL = \log \left[ \frac{EBIT}{EBIT - \text{Financial expenses}} \right] \quad (5)$$

The control variables are the same included in Model 3.

Finally, we test the influence of the gender of the CEO on operational risk, using Equation 6:

$$DOL_i = \beta_0 + \beta_1 WCEO_i + \beta_2 ROA_i + \beta_3 LFSIZE_i + \beta_4 LFAGE_i + \beta_5 INTAS_i + \beta_6 END_i + \beta_7 CFR_i + \beta_8 GROW_i + u_i \quad (6)$$

where DOL is calculated as (Yagüe 1987; Azofra et al. 1997)<sup>7</sup>:

$$DOL = \log \left[ \frac{\text{EBIT} + \text{Fixed cost}}{\text{EBIT}} \right] \quad (7)$$

As control variables (Gaud et al. 2005), we include ROA, LFSIZE, LFAGE, INTAS, END (defined above), the cash flow ratio (CFR), calculated as net profit plus fixed asset depreciation divided by total assets, and the growth ratio (GROW) computed as the depreciation of assets divided by total assets.

The methodology employed is Three Stage Least Squares (3SLS). This methodology controls for the endogeneity of the variables, using a system of simultaneous equations (Chamberlain 1982).

To analyze the determinants of women presence as CEO, we propose the following model (Martín and Minguez 2014):

$$WCEO_i = \beta_0 + \beta_1 RETURN_i + \beta_2 RISK_i + \beta_3 LFSIZE_i + \beta_4 LFAGE_i + u_i \quad (8)$$

where, RETURN includes ROA and ROE as alternative measures and RISK includes the different measures of financial risk (END and DFL) and operational risk (DOL). We use a Probit methodology that it is appropriate when the dependent variable is binary.

Descriptive statistics are presented in Table 1. As can be seen, the means of ROA and ROE are negative. This data shows the difficult situation of the publishing industry in the year 2013. 26% of the CEOs in our sample are women.

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<sup>7</sup> Following Azofra et al. (1997), we have considered as fixed costs the staff costs and the fixed asset depreciation.

INSERT TABLE 1 ABOUT HERE

#### 4. Results

The results of the estimation of the different models are presented in Tables 2 and 3. Table 2 shows that a woman as CEO exerts a significant positive influence on return on assets (ROA) – Model 1. The same influence is observed when employing the return on equity (ROE) as measure of a firm's returns (Model 2). Therefore, Hypothesis 1 is confirmed; companies run by women have higher levels of returns. These results are in line with most previous evidence for large and quoted firms (Shrader et al. 1997; Erhardt et al. 2003; Catalyst 2004, and Welbourne et al. 2007).

INSERT TABLE 2 ABOUT HERE

With regard to the control variables, smaller firm are more profitable. The influence of the firm's age (LAGE) on firm performance is negative. This result suggests that younger firms may have less inertia and fewer bureaucratic processes. They can be more agile and flexible in response to environmental changes (Foster and Kaplan 2001).

In Table 3 the results related to effect of the CEO's gender on firm risk can be found. There is a significant negative influence of the presence of a woman as CEO on debt ratio – Model 1. Therefore, Hypothesis 2.1 is confirmed. These results are consistent with most previous research. It may well be that women have greater aversion to risk (Orsen et al. 2006; Borghans et al. 2009; Scherr et al. 1993 and Jianakoplos and Bernasek 1998) which influences the firm's debt level.

INSERT TABLE 3 ABOUT HERE

In terms of the control variables, larger and older firms have higher debt ratios. On the other hand, firms with more intangible assets have a higher proportion of debt on the liability side of the balance sheet. Finally, higher costs of the debt are associated with lower levels of debt.

In Model 2 of Table 3, the dependent variable is the degree of financial leverage, DFL, as an alternative measure of financial risk. The result is consistent with that observed in Model 1: firms with a woman as CEO have less financial risk, and Hypothesis 2.2 is confirmed. In relation to the control variables, more profitable and older firms have more financial leverage. Company size and costs of debt are related to greater financial risk.

Finally, we analyze the effect of the presence of a woman as CEO on firm operational risk, Model 3. We find no significant relationship, and Hypothesis 3 is not confirmed. This result may be due to the fact that this operational risk is more difficult to control than financial risk.

In relation to the control variables, smaller firms and those with a smaller cash flow ratio have less operational risk. However, more profitable, older firms, and firms with more debt and with more growth opportunity have greater operational risk, DOL.

Table 4 shows the results relating to the determinants of a female presence as CEO in publishing firms. We find that firms with higher returns, ROA and ROE, are more likely to have a woman as CEO. That is, it seems that women are choosing to serve as CEOs in firms with higher levels of performance. This result supports Hypothesis 4.

INSERT TABLE 4 ABOUT HERE

Focusing on the risk variables, the evidence is not conclusive. On the one hand, we find that the firm's financial risk, measured by the debt ratio, END, has a negative influence on the likelihood of a woman CEO, a result that supports Hypothesis 5.1. On the other hand, we do not find a significant effect of the logarithm of the degree of financial leverage, DFL, on the likelihood of a woman as CEO. We also find no significant effect of operational risk, DOL, on the presence of a female CEO. This result does not support Hypothesis 5.2. The different results that we find for these three variables, debt ratio, DEBT, financial leverage, DFL, and operational risk, DOL, could be due to the fact that the debt ratio is much visible than the other two measures, and it may be that women take this variable into consideration, but not the other two measures, when they opt to work for a firm.

Finally, smaller firms are more likely to have a female CEO. Perhaps this type of firm may be family owned, and the process of succession (of children and grandchildren and so on) makes it more likely for women to be successful, creating more gender diversity.

## **5. Conclusions**

Gender and its influence on a range of variables are attracting the attention of researchers. A number of works have highlighted the differences between men and women with regard to

how a company is run, and the impact which gender diversity has on work groups (Heidrick and Struggles 2007; Carter et al. 2003; Campbell and Mínguez 2008; among others).

The number of gender studies has grown recently thanks to the emergence of laws and debates concerning gender equality in many countries, including Spain. A number of measures have been adopted in Spain to equalize opportunities for men and women in a range of social aspects. Such measures include the 2007 Law on Equality, which sought to introduce the right to equal treatment and opportunities between men and women in all walks of life, particularly in the political, civil, work, financial, social and cultural arenas.

The sample examined includes 2,157 publishing firms for the year 2013. The results show that the fact that the CEO is a woman increases the Returns on Assets, ROA, and the Returns on Equity, ROE. The results also show that the presence of a woman as CEO reduces the debt level and the degree of financial leverage. This last evidence is in line with some previous evidence that shows greater risk aversion among women compared to men. However, we find no influence of CEO gender on the operational risk, perhaps because this variable is more difficult to control, since it depends to a greater extent on exogenous variables.

In relation to the results of the study of the determinants of a woman being CEO, we find that firms with higher returns, ROA and ROE, are more likely to have a woman as CEO. This result could be due to the fact that women may choose to serve as CEO in firms with higher levels of performance. Concerning risk variables, the evidence is not conclusive. On the one hand, we find that a higher debt level has a negative influence on the likelihood of a woman CEO, but, on the other hand, we do not find a significant effect of either the logarithm of the degree of financial leverage or the operational risk on the likelihood of a female CEO. The different results that we find for these three variables may possibly be explained by the fact that the debt ratio is much more visible than the other two variables.

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**Table 1: Descriptive Statistics**

	<i>Mean</i>	<i>Median</i>	<i>Standard Deviation</i>	<i>Maximum</i>	<i>Minimum</i>
ROA	-0.015	0.005	0.210	-0.995	0.882
ROE	-0.048	0.016	0.409	-0.992	0.991
END	0.404	0.368	0.272	0.000	0.999
DFL	0.130	0.000	0.683	-4.727	5.207
DOL	3.386	3.317	1.677	-4.000	8.446
WCEO	0.261	0.000	0.439	0.000	1.000
LFSIZE	5.584	5.435	1.979	-0.189	13.389
LFAGE	8.335	8.508	0.903	4.394	10.633
INTAS	0.410	0.463	0.114	0.005	0.500
DEBCOS	0.027	0.005	0.107	0.000	1.919
INCO	1.768	0.371	48.036	-290.366	326.367
CFR	-0.001	0.022	0.259	-2.467	1.703
GROW	0.032	0.018	0.048	0.000	0.618

VARIABLES: ROA (return on assets); ROE (return on equity); END (debt ratio); DFL (logarithm of degree of financial leverage); DOL (logarithm of degree of operational risk) WCEO (dummy variable that takes a value of 1 when the CEO of the firm is a woman, and zero otherwise); FSIZE (firm size, measured by the logarithm of total assets); LFAGE (logarithm of the firm age); INTAS (intangible assets to total assets); DEBCOS (debt cost ); INCO (interest coverage ratio), CFR (cash flow ratio), GROW (growth ratio).

**Table 2: Three Stage Least Squares (3SLS) Estimation of the effect of the gender of the CEO (WCEO) on firm performance (ROA, ROE)**

Variable	Model 1: ROA	Model 2: ROE
Constant	0.283*** (0.047)	0.291 (0.200)
WCEO	0.069*** (0.010)	0.185*** (0.027)
END	-0.027 (0.018)	-0.096 (0.0173)
LFSIZE	-0.011*** (0.002)	-0.015* (0.007)
LFAGE	-0.015*** (0.005)	-0.050*** (0.017)
R2	0.120	0.064
Chi2	117.33***	65.93***

\*, \*\*, \*\*\* Significant at 10%, 5% and 1%, respectively. Standard errors in brackets. Chi2 (test of combined significance).

**Table 3: Three Stage Least Squares (3SLS) Estimation of the effect of the gender of the CEO (WCEO) on firm risk (END, DFL, DOL)**

Variable	Model 1: END	Model 2: DFL	Model 3: DOL
Constant	0.761*** (0.079)	0.379 (0.251)	2.754*** (0.539)
WCEO	-0.057*** (0.071)	-0.107* (0.055)	0.008 (0.106)
ROA	-0.073 (0.046)	0.979*** (0.130)	1.480** (0.739)
LFSIZE	-0.021*** (0.004)	-0.040** (0.014)	-0.131*** (0.028)
LFAGE	-0.041*** (0.009)	0.103*** (0.032)	0.166*** (0.062)
INTAS	0.390*** (0.059)	0.065 (0.029)	0.173 (0.421)
DEBCOS	-0.0362*** (0.0058)	-0.239** (0.0095)	
INCO	0.0001 (0.0001)	0.0003 (0.0002)	
END			1.469*** (0.195)
CFR			-10.613*** (0.948)
GROW			13.350*** (1.628)
R2	0.130	0.032	0.373
Chi2	164.91***	152.60***	468.06***

\*, \*\*, \*\*\* Significant at 10%, 5% and 1%, respectively. Standard errors in brackets.  
Chi2 (test of combined significance).

**Table 4: Probit estimation of the determinant of the presence of a woman as CEO (WCEO)**

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>
Constant	0.651* (0.327)	0.239 (0.351)	-0.086 (0.292)	-0.471 (0.320)	0.107 (0.421)	0.055 (0.427)
ROA	1.096*** (0.178)		1.118*** (0.154)		1.965*** (0.362)	
ROE		1.100*** (0.019)		1.191*** (0.100)		0.916*** (0.180)
END	-0.653*** (0.126)	-0.610*** (0.136)				
DFL			-0.071 (0.048)	-0.053 (0.050)		
DOL					-0.033 (0.029)	-0.039 (0.027)
LFSIZE	-0.111*** (0.020)	-0.116*** (0.021)	-0.093*** (0.018)	-0.099*** (0.020)	-0.117*** (0.026)	-0.128*** (0.026)
LFAGE	-0.050 (0.041)	-0.008 (0.004)	-0.003 (0.039)	0.037 (0.042)	-0.012 (0.052)	0.007 (0.054)
R2	0.052	0.093	0.040	0.096	0.083	0.066
Chi2	107.50***	179.28***	90.68***	197.66***	113.14***	83.98***

\*, \*\*, \*\*\* Significant at 10%, 5% and 1%, respectively. Standard errors in brackets.

Chi2 (test of combined significance).