

Does Female Leadership Impact Firm Financial Performance?

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ABSTRACT

- Women make up 47.0% of the labor force and 50.8% of the United States population, but only 40% of managers, as of 2019. In recent years, more and more women are taking on leadership positions, provoking widespread speculation and debate on the impact a female CEO would have on the financial success of a firm.
- The data is hand collected from various sources, including *LinkedIn*, *Bloomberg Profiles*, and *Yahoo Finance*; compiled into one dataset from 1978 to 2021. Companies included are different Fortune 500, Fortune 1000, and S&P 500 companies transitioning from a male CEO to a female CEO.
- This paper will investigate and evaluate the impact of a female in the chief executive officer position on the financial performance of a firm. Additionally, I examine the impact of the change in leadership on specific industry sectors. We hypothesize that if there is a female CEO, the stock returns of the firm will increase.

ECONOMIC STORY

- Direct Effect of Female Leadership
 - The first hypothesis is a positive relationship between female leadership in the CEO position and the firm’s financial performance. Increasing representation will foster diverse thought in team environments, leading to more collaboration and inclusion amongst employees, thus leading to an increase in financial performance and stock price.
- Spill-over Effect of Female Leadership
 - The second is a positive relationship between female leadership in the CEO position and the firm’s financial performance. Increasing the presence of female leadership in one firm will create some pressure for other firms in the industry, and if they follow suit, more incentive for all employees to work harder; thus, a boost in sector earnings.
- Social Trend Effect of Female Leadership
 - The third hypothesis can be both a positive and negative relationship between female leadership in the CEO position and the firm’s financial performance. If companies are following the social push to hire more women into management positions, and investors agree with this, then they will react positively. If investors disagree, it could negatively affect stock prices.

METHODS & DATA

- Independent Variable**
- Gender of CEO: Focus on female. Value of 1 for female, 0 for male
- Dependent Variables**
- The day, week, and month stock return were calculated by taking the value before the start date of the CEO and the value after the start date; for example.
 - Year Stock Return: Calculated using the stock price of the firm the day before and year after the start of the CEO
- Control Variables**
- Age of firm, Fortune 500 rank, industry of the firm, industry experience, firm experience, firm international influence, and percentage of females on the Board of Directors

$$SR_f = \beta_0 + \beta_I * FL_f + \phi_s + \varepsilon_f$$
$$SR_f = \beta_0 + \beta_I * FL_f + \Upsilon_I * IndExp_f + \Upsilon_2 * FirmExp_f + \varepsilon_f$$
$$DayReturn_f = \beta_0 + \beta_I * FL_f + \Upsilon_I * IndExp_f + \Upsilon_2 * FirmExp_f + \Upsilon_3 * Rank_f + \Upsilon_4 * Mne_f + \Upsilon_5 * ShareFem_f + \Upsilon_5 * FirmAge_f + \varepsilon_f$$
$$WeekReturn_f = \beta_0 + \beta_I * FL_f + \Upsilon_I * IndExp_f + \Upsilon_2 * FirmExp_f + \Upsilon_3 * Rank_f + \Upsilon_4 * Mne_f + \Upsilon_5 * ShareFem_f + \Upsilon_5 * FirmAge_f + \varepsilon_f$$
$$MonthReturn_f = \beta_0 + \beta_I * FL_f + \Upsilon_I * IndExp_f + \Upsilon_2 * FirmExp_f + \Upsilon_3 * Rank_f + \Upsilon_4 * Mne_f + \Upsilon_5 * ShareFem_f + \Upsilon_5 * FirmAge_f + \varepsilon_f$$
$$YearReturn_f = \beta_0 + \beta_I * FL_f + \Upsilon_I * IndExp_f + \Upsilon_2 * FirmExp_f + \Upsilon_3 * Rank_f + \Upsilon_4 * Mne_f + \Upsilon_5 * ShareFem_f + \Upsilon_5 * FirmAge_f + \varepsilon_f$$

DATA – SUMMARY STATISTICS

Table 1. Descriptive Statistics

Variable	N	Mean	Median	SD	Min	Max
DayReturn	104	0.00134	0.00307	0.03	(0.07)	0.10
WeekReturn	104	(0.00041)	(0.0003)	0.08	(0.23)	0.38
MonthReturn	103	0.01820	0.021	0.21	(0.69)	0.96
YearReturn	94	0.18300	0.152	0.40	(0.54)	1.54
FL	128	0.50	0.50	0.50	0.0	1.00
Rank	112	412.00	364.0	292.0	8.0	1000
Mne	124	0.69	1.00	0.46	0.0	1.00
ShareFem	124	0.384	0.345	0.44	0.0	0.56
IndExp	126	0.71	1.00	0.45	0.0	1.0
FirmExp	126	0.75	1.00	0.44	0.0	1.0
FirmAge	126	85.2	98.0	41.6	12.0	173

- Day Return, Week Return, Month Return, Year Return, ShareFem, and Mne exhibit high dispersion.
- While FirmAge, Rank, FirmExp and IndExp are concentrated variables.
- Interestingly, ShareFem only a max of 56%.

RESULTS – OLS

Table 5. Regression Analysis of Year Returns

	(1) YearReturn	(2) YearReturn	(3) YearReturn	(4) YearReturn
FL	-0.0686 (-0.83)	-0.0635 (-0.79)	-0.0721 (-0.86)	-0.0293 (-0.36)
IndExp			-0.0756 (-0.82)	-0.0871 (-0.99)
FirmExp			-0.0520 (-0.56)	-0.0216 (-0.24)
Rank				-0.0000969 (-0.67)
Mne				-0.155* (-1.81)
ShareFem				0.838** (2.38)
FirmAge				-0.00193* (-1.72)
_cons	0.216*** (3.77)	0.248 (1.11)	0.309*** (2.71)	0.287 (1.43)
Industry FE	No	Yes	No	Yes
N	94	94	94	83
adj. R ²	-0.003	0.073	-0.015	0.072

- t statistics in parentheses
* p < 0.10, ** p < 0.05, *** p < 0.01
- Although female leadership has an insignificant and negative impact on firm financial performance, companies should advocate for female participation in the workplace and as a long-term increase in the percentage of females on the board of directors leads to a positive financial performance.

CONCLUSION

- There is an insignificant and inconclusive relationship between a female CEO and the firm’s financial performance.
- In the short term, FirmExp is significant and positive. In the long term, a company that is a multinational enterprise and is an older company, has a negative financial performance when there is a change in leadership.
- Companies in the metal, pharmaceutical, and communication industry are impacted with a change in leadership.
- In the short run, ShareFem is insignificant and negative, this is deceiving as we find in the long run there is a persistent, positive effect of female participation in the Board of Directors.