CHIEF EXECUTIVE OFFICER'S GENDER AND FIRM PERFORMANCE IN THE JSE SRI FIRMS

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JEL Classification: M1, M2, M4, M5 **DOI:** 10.22495/cbv13ilclartl Abstract

This paper evaluated the relationship between chief executive officers' gender and firm performance. Therefore, the specific objectives of the paper were: 1) to evaluate the relationship between the CEO's gender and company turnover; 2) to assess the relationship, the CEO's gender and share price; 3) to examine the relationship between the CEO's gender and net profit. The paper applied the positivist research method, which is a quantitative approach as it sought to measure the relationship between variables. Secondary Data on CEO gender, turnover, share price and net profit were collected from the archives of integrated report of 16 JSE SRI Companies that had a complete disclosure of the research variables. The paper used the Chi-square statistics (Phi and Cramer's V tests) to test the relationship between CEO gender, turnover, share price and net profit. Findings from the statistical results showed that the Phi and Cramer's V test gave a P value greater than 0.05 (P>0.05), which shows that within the sample of companies, there is no significant relationship between CEO's gender, net profit, share price and turnover. The research concludes and recommends that gender might not necessarily affect performance, at least within the sample of companies, therefore, there should be no gender discrimination on CEO's position. Women should, therefore, receive support to assume the position of CEO. This finding provides an agenda for further research to use broader sample across industry sectors to examine this relationship further, as gender is an important component of sustainable development goals.

Keywords: CEO Gender, Firm Performance, Sales Turnover, Share Price, Net Profit

1. INTRODUCTION

There is a growing campaign for the corporate to accommodate more women on the corporate top echelon. Gender equality in the workplace encourages equality between men and women and should be considered from the lower level right to the top level of the organisation. There is, therefore, a growing advocacy for hiring and supporting women to the CEO level as part of the strategies to enhance sustainable development (Bear et al., 2010).

Whilst there is a global campaign of gender equality, corporate across the world are still hesitant to consider women in the CEOs' positions unless there is probable evidence that such transition will benefit the organisation.

Contemporary research has proven that women representation on the top-level management can affect the corporate social responsibility ratings, which influence corporate reputation, and which also impacts on corporate performance. Aspects such as financial performance, institutional investment and share price can be affected by the positive reputation of the company. This is because investment decisions made by the board of directors are influenced among others by environmental, social and corporate governance factors (Bear et al., 2010).

Previous literature such as Smith and Villa (2010) has indicated that participation of women CEOs may have a significant effect on corporate performance. Some recent studies have shown that gender equality has an impact on the firm's turnover (Faccio et al. 2015; Mkhize et al., 2011).

For instance, it has been recognised that female directors make acquisition decisions that influence shareholder value leading to macroeconomic implications that affect the long-term economic growth of the company (Faccio et al., 2015). Women are reported to contribute to the implementation of unique skills to the corporates that affect the net profit of the organisation (Mkhize et al., 2011). Since the gender equity campaign is ongoing, research in this important area is also progressing; this research hopes to contribute to the ongoing research by studying the socially responsible investing firms to see if gender has a relationship with firm performances such as turnover, share price and net profit.

Drawing from the preceding introduction, this research attempted to answer the following research questions within the JSE SRI sample of companies:

1. What is the relationship between CEOs' gender and corporate turnover?

2. What relationship exists between the CEOs' gender and the share price?

3. How is the CEO's gender related to a net profit of the company?

In congruence with the above research questions, the objectives of this research are: to evaluate the relationship between the CEO's gender and company turnover; to assess the relationship between the CEO's gender and share price and to examine the relationship between the CEO's gender and net profit.

This research is structured as follows: the next section following the introduction presents the related literature; this is followed by a detailed description of research methodology. The next section after methodology is the data analysis and results; this is followed by the discussion section. The last section presents the conclusion and recommendations.

2. LITERATURE REVIEW

In their panel study, Khan and Vieito (2013) used USA companies to investigate if companies under the headship of women CEOs are at the same level of operational and financial performance with companies under the management of male CEOs. They also evaluated the extent to which gender affects the firm risk level of the panel of companies. Their results showed that indeed the gender of company CEO does affect the performance outcome of the companies within their sample. In addition, Khan and Vieito (2013) also found that the risk level of firms is greater in companies with male CEOs but smaller in companies with female CEOs. Khan and Vieito's research, therefore, indicated that gender at the CEO level has both performance and risk implications.

In another closely related research, the CEO gender was found to have an indirect effect on market growth and financial performance (Davis, Babakus, Englis, and Pett, 2010). This effect was found to emanate from strong market orientation imbued in women female CEOs; hence the research found that given that female CEOs command stronger market orientation than their female ceounterpart, the sample of companies led by female CEOs showed better market growth and financial performance than the sample of companies led by male CEOs (Davis et al. 2010).

An interesting study conducted by Dezso and Ross (2012) reveal that companies that managed by female CEOs perform better and attracts more investors than those run by male CEOs. Dezso's and Ross's study revealed that 80 women CEOs during 12 years of observation produced equity returns 226 percent more than those managed by male CEOs.

Investment decisions made by the board of directors are influenced among others by

environmental, social and corporate governance factors (Bear et al., 2010). Since gender consideration is part of governance issues, it thus means that women CEOs are likely to have an impact on investment decisions and therefore on firm performance.

Whilst the preceding researchers have found a relationship between gender and firm performance, on the contrary, other genres of research show that the issue of gender on top management and firm performance is still inconclusive. For instance, Alm and Winberg (2016) found no relationship between gender in the board, return on asset (ROA) and Tobin's Q. This, therefore, suggests the need to continue the search for a relationship between gender in top management and firm performance. Accordingly, this research is an attempt to contribute to this important current research debate by examining this relationship within the SRI firms in the South African Johannesburg Stock Exchange (JSE).

3. METHODOLOGY

This research adopted a quantitative approach and this became necessary because the researchers sought to measure the relationship between independent and dependent variables. This therefore aligned with the positivist research phenomenology (Cohen, Manion and Morrison, 2013). The population of this research constituted all the JSE Socially Responsibility investing (SRI) Index, however, a purposive sample of sixteen companies was used as companies the best-performing these were companies in the 2015 JSE SRI Index. Data collection method was archival or documentary because the genders and company performance ed in the companies' financial CEOs' are reported and sustainability reports. Therefore, the data collected were CEO Gender, share price, corporate turnover and net profit.

The data analysis technique used in this research is the Chi-Square test because part of the data was categorical therefore their association was best measured by using the Chi-Square approach because it measures the relationship between categorical variables.

In this research CEOs' gender, which is categorised as men or women is assessed against aspects of company performance, which are corporate turnover, share price and net profit as the categorical variables.

4. DATA ANALYSIS AND RESULTS

Using Excel descriptive statistics, the authors computed the mean performance of the 16 companies' sales turnover, share price and net profit. Subsequently, the mean score from the descriptive statistics (See Appendix 1) was used to categorise individual companies' performance as high (H) or low (L) performance as below:

• Performance Categorisation: sales turnover, share price and net profit

• High performance (H): a company meets the sample mean performance

• Low performance (L): a company performs below the sample mean performance

• Gender Categorisation: M (company with male CEO), F (company with female CEO)

• Statistical Analysis used: Chi-square

Table 1. Data from 16 sampled companies with mean performance (see appendix for descriptive statistics)

COMPANY NAME	CEO GENDER	Sales TO*	ShrPrice	Net profit	Sales TO*	ShrPrice	Net profit
Company A	MALE	9 270	336	8 854	L	Н	Н
Company B	MALE	48 193	47	13 009	Н	L	Н
Company C	MALE	25 446	229	4 794	L	Н	L
Company D	MALE	22 474	15	1 460	L	L	L
Company E	MALE	38 704	425	6 759	Н	Н	Н
Company F	MALE	53 438	125	2 262	Н	L	L
Company G	MALE	18 020	14	2 557	L	L	L
Company H	MALE	34 975	106	4 660	Н	L	L
Company I	MALE	23 663	25	1 268	L	L	L
Company J	MALE	114 686	131	16 827	Н	L	Н
Company K	MALE	58 535	75	4 200	Н	L	L
Company L	MALE	38 817	19	10 674	Н	L	Н
Company M	MALE	10 146	94	1 978	L	L	L
Company N	MALE	27 998	389	3 952	L	Н	L
Company O	FEMALE	20 035	140	4 563	L	Н	L
Company P	FEMALE	2 106	67	3 168	L	L	L
Mean Performance (from Appendix 1)	Rm 34156.625	R 139.76	Rm 5686.56				

*Company names replaced with alphabets for commercial confidence *Sales TO = Sales Turnover*

4.1. Research questions

Research question 1: What is the relationship between CEO's gender and corporate turnover?

Research question 2: What relationship exists between the CEO's gender and the share price?

Research question 3: How is the CEO's gender related to a net profit of the company?

Test Significance Level: The significance level for this analysis is 5% alpha level or *P*=0.05, therefore the relationship is deemed significant if the output statistics gave a significance level of $P \le 0.05$

4.1.1. Test 1: CEO's Gender and Sales Turnover

Research question 1: What is the relationship between CEO's gender and company turnover? Statistical analysis = Chi-Square: E-O

Table 2a. Test 1 Case processing summary

	Cases							
		Valid	1	Missing	Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
CEOGender * SalesTO	16	100.0%	0	0.0%	16	100.0%		

 Table 2b. Test 1 CEOs gender * sales turnover cross tabulation

			Sale	sTO	Total
			Н	L	Totai
		Count	0	2	2
	F	% within CEOGender	0.0%	100.0%	100.0%
CEOGender	г	% within SalesTO	0.0%	16.7%	12.5%
en		% of Total	0.0%	12.5%	12.5%
ЭG		Count	4	10	14
CE(М	% within CEOGender	28.6%	71.4%	100.0%
Ŭ	IVI	% within SalesTO	100.0%	83.3%	87.5%
		% of Total	25.0%	62.5%	87.5%
		Count	4	12	16
tal		% within CEOGender	25.0%	75.0%	100.0%
To	tet% within CEOGender% within SalesTO		100.0%	100.0%	100.0%
		% of Total	25.0%	75.0%	100.0%

Table 2c. Test 1 Chi-square tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi- Square	.762*	1	.383		
Continuity Correction**	.000	1	1.000		
Likelihood Ratio	1.243	1	.265		
Fisher's Exact Test				1.000	.550
N of Valid Cases	16				

*3 cells (75.0%) have expected count less than 5. The minimum expected count is .50

**Computed only for a 2x2 table

Table 2d. Test 1 Symmetric measures

		Value	Approximate Significance
Nominal by Nominal	Phi	218	.383
	Cramer's V	.218	.383
N of Valid Cases		16	

Interpretation of Significance: Test 1 Question 1: The Chi-Square significance test is: P = 0.550, the Phi and Cramer's V test is: P = 0.383. Therefore, the significance level for test 1 is greater than 5%. Therefore, within the sampled companies, there is no significant relationship between sales turnover of companies CEO's gender. The results are similar to previous research findings that revealed that there is no significant relationship between CEO's gender and sales turnover (Talmud and Izraeli, 1999). However, these research results are contrary to previous research studies that revealed that a relationship was found between the CEO's gender and sales turnover (Dezso and Ross, 2012; Maccio et al., 2015; Khan and Vieito, 2013; and Huselid, 1995).

4.1.2. Test 2: CEO's Gender and Share Price

Research question 2: What relationship exists between CEO's gender and share price? Statistical analysis = Chi-Square: E-O

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Table 3a. Test 2 Case processing summary

	Cases						
	Valid		Missing		Total		
	Ν	Percent	Ν	Percent	Ν	Percent	
CEOGender * Sharprice	16	100.0%	0	0.0%	16	100.0%	

Table 3b. Test 2 CEOs gender * share price cross tabulation

			Share	price	Total
			Н	L	10101
		Count	1	1	2
	F	% within CEOGender	50.0%	50.0%	100.0%
CEOGender	г	% within Share price	20.0%	9.1%	12.5%
en		% of Total	6.3%	6.3%	12.5%
ЭG		Count	4	10	14
CE(М	% within CEOGender	28.6%	71.4%	100.0%
Ū	IVI	% within Share price	80.0%	90.9%	87.5%
		% of Total	25.0%	62.5%	87.5%
		Count	5	11	16
Total		% within CEOGender	31.3%	68.8%	100.0%
To		% within Share price	100.0%	100.0%	100.0%
		% of Total	31.3%	68.8%	100.0%

Table 3c. Test 2 Chi-square tests

Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
.374*	1	.541		
.000	1	1.000		
.351	1	.554		
			1.000	.542
16				
	.374* .000 .351	.374* 1 .000 1 .351 1	Value df Significance (2-sided) .374* 1 .541 .000 1 1.000 .351 1 .554	Value df Significance (2-sided) Sig. (2- sided) .374* 1 .541

*3 cells (75.0%) have expected count less than 5. The minimum expected count is .63

**Computed only for a 2x2 table

		Value	Approximate Significance
Nominal by Nominal	Phi	.153	.541
	Cramer's V	.153	.541
N of Valid Cases	16		

Interpretation of Significance: Test 2 Question 2: The Chi-Square significance test is: P = 0.54, the Phi and Cramer's V test is: P = 0.54. Therefore, the significance level for test 2 is greater than 5%. Therefore, within the sampled companies, there is no significant difference between the share price of companies and CEOs gender. The findings of this study are similar to previous research findings which revealed that there is no significant relationship between CEO's gender and company share price (Gregory et al., 2013; Taljaard et al., 2015; Mohan and Chen, 2004; and Cook and Glass, 2011). These results are in contrast with the findings from previous research results which showed that the relationship exists between the CEO's gender and company share price (Dezso and Ross, 2012; Bear et al., 2010; Filatotchev and Bishop, 2002).

4.1.3. Test 3: CEO's Gender and Net Profit

Research question 3: How is the CEO's gender related to a net profit of the company? Statistical analysis = Chi-Square: E-O

Table 4a. Test 3 Case processing summary

	Cases							
		Valid	Ν	lissing	Total			
	Ν	Percent	Ν	Percent	Ν	Percent		
CEOGender * Net profit	16	100.0%	0	0.0%	16	100.0%		

Table 4b. Test 3 CEOs gender * net profit cross tabulation

			Net p	profit	Total
			Н	L	10101
		Count	0	2	2
	F	% within CEOGender	0.0%	100.0%	100.0%
CEOGender	г	% within Net profit	0.0%	18.2%	12.5%
en		% of Total	0.0%	12.5%	12.5%
g		Count	5	9	14
Ĕ	М	% within CEOGender	35.7%	64.3%	100.0%
-	IVI	% within Net profit	100.0%	81.8%	87.5%
		% of Total	31.3%	56.3%	87.5%
		Count	5	11	16
Total		% within CEOGender	31.3%	68.8%	100.0%
To	🛱 🛛 % within Net profit		100.0%	100.0%	100.0%
		% of Total	31.3%	68.8%	100.0%

Table 4c. Test 3 Chi-square tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	1.039*	1	.308		
Continuity Correction**	.042	1	.838		
Likelihood Ratio	1.626	1	.202		
Fisher's Exact Test				1.000	.458
N of Valid Cases	16				

*3 cells (75.0%) have expected count less than 5. The minimum expected count is .63

**Computed only for a 2x2 table

Table 4d. Test 3 Symmetric measures

		Value	Approximate Significance
Nominal by Nominal	Phi	255	.308
Nominal by Nominal	Cramer's V	.255	.308
N of Valid Cases		16	

Interpretation of Significance: Test 3 Question 3: The Chi-Square significance test is: P = 0.45, the Phi and Cramer's V test is: P = 0.30. Therefore, the significance level for test 3 is greater than 5%. Therefore, within the sampled companies, there is no significant relationship between a net profit of companies and CEOs gender. These findings are similar to previous research findings that revealed that there is no significant relationship between CEO's gender and the net profit of the company (Mkhize et al., 2011; and Lam et al., 2013). However, these findings are contrary to previous research findings which revealed that there is a relationship between CEO's gender and the net profit of the company (Lehobo, 2011; Jurkus et al., 2011; Gregory et al., 2013).

4.2. Discussion

The preceding data analysis section presented the data in which the authors computed the mean performance of the sixteen (16) best SRI performing companies that were listed in the JSE/FTSE of 2015 socially investing rating. Three (3) variables were used as proxies for firm performance, namely sales



turnover, share price and net profit. Using the Chi-Square statistics, the relationship between CEOs gender and firm performance were tested and the Pvalue of more than 5 percent was observed in all the three (3) variables representing firm performance. Therefore, the researchers concluded that within the sixteen (16) best SRI performing companies there is not enough statistical evidence to conclude that there is a significant relationship between CEOs' gender, sales turnover, share price and net profit.

The results of this study, which showed no relationship between CEO gender and turnover are similar to previous research findings, which revealed that there is no significant relationship between CEOs' gender and sales turnover (Talmud and Izraeli, 1999). However, these research results are contrary to previous research studies that found a relationship between the CEOs' gender and sales turnover (Dezso and Ross, 2012; Khan and Vieito, 2013; Huselid, 1995).

Additionally, within the sampled sixteen (16) companies, the results revealed that there was no relationship between CEOs' gender and company share price. The findings of this study are similar to the previous research findings, which revealed that there is no significant relationship between CEOs' gender and company share price (Gregory, 2013; Taljaard et al., 2015; Mohan and Chen, 2004; Cook and Glass, 2011). These results are in contrast with the findings from previous research results which showed a relationship between the CEOs' gender and company share price (Dezso and Ross, 2012; Bear et al., 2010; Filatotchev and Bishop, 2002).

Similarly, it was evident that within the sixteen (16) sampled companies, no significant relationship exists between CEOs' gender and a net profit of the sample of companies.

These findings are consistent with previous research findings that revealed lack of significant relationship between CEOs' gender and net profit (Mkhize et al., 2011; Lam et al., 2013). However, these findings are contrary to previous research findings, which revealed that there is a relationship between CEOs' gender and a net profit of the companies (Lehobo, 2011; Jurkus et al., 2011; Gregory et al., 2013).

5. CONCLUSION

This research set out to examine the relationship between CEO gender and firm performance represented by (share price, turnover and net profit. Therefore, the objectives of this paper were: to evaluate the relationship between the CEO's gender and company turnover; to assess the relationship between the CEO's gender and share price and to examine the relationship between the CEO's gender and net profit.

Within the sampled sixteen (16) companies, there is no significant relationship in sales turnover of companies with male CEOs and companies with female CEOs where P = 0.550 for Chi-Square test and P = 0.383 for Phi and Cramer's test. Additionally, within the sampled sixteen (16) companies, the results revealed that there is no relationship between CEO's gender and company share price where P = 0.54 for Chi-Square test and P = 0.54 for Phi and Cramer's test.

Similarly, it was evident that within the sixteen (16) sampled companies the relationship does not exist between CEO gender and a net profit of the company where P = 0.45 for Chi-Square test and P = 0.30 for Phi and Cramer's test.

However, there is a difference between the previous research studies and this study; possible reasons for the difference may be that this study was conducted within a short period of time. The sample size might also play a role as in this research only sixteen (16) companies were evaluated therefore the results might be different when using a larger sample size. The study was conducted in the JSE/FTSE listed companies where only the evaluation was conducted on the performance of South African companies, which might reveal different results when comparing the performance of companies across other countries. Based on the findings of this research, the paper concludes that within the sample of companies examined, there is not enough statistical evidence to conclude that CEO's gender might affect firms' performance.

6. RECOMMENDATIONS

The research concludes and recommends that gender might not necessarily affect performance, at least within the sample of companies; therefore, there should be no gender discrimination on CEO's position. Women should, therefore, receive support to assume the position of CEO. This finding provides an agenda for further research to use broader sample across industry sectors to examine this relationship further, as gender is an important component of sustainable development goals. The research limitation includes few (16) companies which limit the findings to the sample of companies. In addition, among the corporate socially responsible factors that can affect company performance only the gender of CEOs was used, therefore further research can be conducted to evaluate other factors that can affect company performance.

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APPENDICES

Appendix 1. Combined descriptive statistics of the performance of all sampled companies

Descriptive Statistics								
Sales Turnover		Share Price		Net Profit				
Mean	34156.625	Mean	139.76125	Mean	5686.5625			
Standard Error	6687.81709	Standard Error	33.59015706	Standard Error	1120.122999			
Median	26722	Median	100.05	Median	4381.5			
Mode	#N/A	Mode	#N/A	Mode	#N/A			
Standard Deviation	26751.26836	Standard Deviation	134.3606283	Standard Deviation	4480.491996			
Sample Variance	715630358.9	Sample Variance	18052.77843	Sample Variance	20074808.53			
Kurtosis	4.949178283	Kurtosis	0.276985922	Kurtosis	1.280131154			
Skewness	1.886480895	Skewness	1.197891547	Skewness	1.373147854			
Range	112580	Range	411.5	Range	15559			
Minimum	2106	Minimum	13.63	Minimum	1268			
Maximum	114686	Maximum	425.13	Maximum	16827			
Sum	546506	Sum	2236.18	Sum	90985			
Count	16	Count	16	Count	16			
Largest (1)	114686	Largest (1)	425.13	Largest (1)	16827			
Smallest (1)	2106	Smallest (1)	13.63	Smallest (1)	1268			
Confidence Level (95.0%)	14254.7447	Confidence Level (95.0%)	71.59572501	Confidence Level (95.0%)	2387.485657			

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