

BOARD GENDER DIVERSITY AND FIRM PERFORMANCE: AN EMPIRICAL STUDY OF LISTED COMPANIES IN MAURITIUS

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Abstract: *The Code of Corporate Governance 2016 of Mauritius has made it compulsory for some entities to achieve gender diversity on their respective boards. In this male-dominated society, it, therefore, becomes vital to assess the contribution of female representation on corporate boards. In this respect, this study aims to investigate the relationship between gender diversity and financial performance of firms. A panel data analysis and time series approaches are employed to measure the financial performance of firms listed on the Official Market of the Stock Exchange of Mauritius over a 4-year period that is from 2014 to 2018. Regression analysis is used to figure out the impact of gender diversity represented by the number of women on boards and the proportion of women on boards on three performance indicators being the return on assets, the return on equity and leverage. The findings show that gender diversity has a positive impact on ROA by 28.6% whereas no significant results are found for the effect of gender diversity on ROE and leverage. This may be explained due to the low level of female representation on boards which has not helped the researcher assess accurately the impact on other financial indicators. This paper has focused on Mauritius companies and findings contribute to the growing knowledge on the relationship between board gender diversity and corporate financial performance. The findings are of interest to the government, investors, management and other researchers*

Keywords: Gender Diversity, Female Representation, Corporate Governance, Firm's Performance, Mauritius

Research Area: Social Sciences

Paper Type: Research Paper

1. BACKGROUND

The new Mauritius Code of Corporate Governance 2016 (Code) has introduced a broader concept of board diversity than the previous Code of Corporate Governance 2004 to the effect that firms in Mauritius are now expected to include directors from both genders as members of their respective boards. In other words, the board of directors of organisations in Mauritius must comprise of at least one male and one female member (Principle 2 of the Code).

In addition, this requirement is further highlighted in Principle 3 of the Code which advocates that a formal rigorous process has to be conducted to appoint directors based on objective criteria such as skills, knowledge, experience, independence and with due regard for the benefits of diversity on the board including gender. The idea behind the inclusion of gender diversity in the Code is first to reduce or eliminate the disparity between male and female representation on corporate boards that currently exists (Hay Group, 2015). Secondly, it is believed that firm's performance is likely to be improved and enhanced if more females occupy upper managerial positions such as directors on corporate boards ((Mumba, 2017) and (Khan et al., 2018)). In this respect, various studies conducted reveal that gender diversity on corporate boards leads to the better financial performance of firms ((Klein, 2017), (Lenard et al., 2018) and (Madhani et al., 2019)).

Accordingly, some countries such as Norway and France have imposed mandatory quotas for corporate boards of all companies to include members of both genders such that this gender balance will encourage board decisions with more diverse opinions and will entail a greater understanding of clients' needs (EgonZehnder, 2016). Nevertheless, the imposition of mandatory quotas have several implications such as costs and availability of resources consequences and as such, these factors have to be considered before legislation that will require gender quotas on all organisations, can be enacted (Ishmael, 2018).

In the context of Mauritius, the Code has to be mandatorily followed by all "Public Interest Entities", a term that is defined under the Financial Reporting Act 2004 of Mauritius as inter alia, entities that are licensed by the Bank of Mauritius or the Mauritius Financial Services Commission, organisations that are listed on the Stock Exchange of Mauritius (SEM) and governmental or parastatal bodies. Therefore, the purpose of this study is to investigate whether the new gender diversity provision in the Code is effective in improving firm's performance and hence, this study intends to research on the relationship between gender diversity on corporate boards and performance of firms that apply the Code's principles in Mauritius. While it is impractical to consider all companies that are mandatorily required to abide by the Code due to time and resource constraints, this research has targeted only Mauritius companies that are listed on the Official Market of the SEM. As of September 2019, 40 Mauritius companies are listed and are used as the target population. Gender diversity is measured by the number of women on corporate boards and the proportion of women on corporate boards. Financial performance of firms is measured by the return on total assets, return on equity and leverage. Also, in terms of research methodology, this research makes use of data sets with a time-series and a cross-sectional dimension. Information is gathered from secondary sources that are, from annual reports of each targeted companies and are collected for a four year period of 2014-2015, 2015-2016, 2016-2017 and 2017-2018. However, this study does not consider some other corporate governance factors that may affect a firm's performance and only concerns companies listed on the official market of the SEM.

In light of the above, the following research hypotheses are formulated:

- H₀: There is a positive relationship between the number of women on boards and return on assets
- H₁: There is a positive relationship between the number of women on boards and return on assets
- H₂: There is a positive relationship between the proportion of women on boards and return on assets
- H₃: There is a positive relationship between the number of women on boards and return on equity
- H₄: There is a positive relationship between the proportion of women on boards and return on equity
- H₅: There is a positive relationship between the number of women on boards and leverage
- H₆: There is a positive relationship between the proportion of women on boards and leverage.

While this first part of the research paper has introduced gender diversity as the subject matter of the study and the research objectives and hypotheses, the other parts of the paper are structured as follows. The second part focuses on the literature review which discusses existing researches conducted on the relationship between board diversity and

financial performance. The third part elaborates further on the research methodology adopted for this study and the fourth part presents the findings of the research. The final part will conclude the paper and set out recommendations as applicable.

2. LITERATURE REVIEW

2.1 Definition of Corporate Governance

Corporate governance is defined as a system in which companies are directed and controlled (Cadbury Committee, 1992). It is often viewed as the establishment of mechanisms and relationships which determine corporate direction and performance (McRitchie, 2019). Essentially, the responsibility of steering, guiding and piloting the corporate governance framework rests with the board who in turn has a duty of accountability to the providers of the capital of an organisation. In a nutshell, corporate governance refers to the exercise of control by management in the best interests of the company including accountability to shareholders who elect directors and auditors and to other stakeholders as well.

Indeed, the manner in which a corporation is managed and controlled directly impacts on the company's performance and in turn, on the return on shareholders' investment (Matiesen., 2018). Additionally, nowadays various countries are either implementing a new code of corporate governance or updating their existing codes to encompass the direct or indirect effects that an organisation's activities have on parties that are external to the organisation such as the society in general or the government. This new approach is known as the stakeholder's theory and the reasoning behind the emergence of this theory is mainly attributed to the scandals arising from poor governance which emphasized initially on improving shareholder's value only. Ancillary impacts from economies activities such as human rights abuses or environmental degradation were not considered under previous codes which provided for measures to boost profitability only and the result was the downfall of several institutions. Consequently, the stakeholders' theory advocates for the exercise of ethical and effective leadership to achieve good governance outcomes (South Africa King Report IV, 2016). From there result the various theories of corporate governance. In addition to the stakeholders' theory, there exist some other principles which are the underlying basis of corporate governance.

2.2 Theoretical Framework of Corporate Governance

Kristie (2019) construes corporate governance as the gathering of a group of smart, accomplished people around a board table in order to make good decisions on behalf of the company and its stakeholders. In this light, although differing theories exist to explain corporate governance mechanisms, it is still difficult to fully explain the entire decision making process of the board regarding corporate governance principles. Nevertheless, this research paper will discuss four main theories in this connection namely, the agency theory, stewardship theory, resource dependency theory and transaction cost theory.

In simple terms, agency theory refers to the principal-agent relationship whereby the owner of a company is not the same person who manages or controls it (Andersson, 2018). Basically, the agency theory concerns the behaviour of managers who are considered as agents of shareholders and are supposed to act in the best interest of owners although this is not always the case. Along the same lines, Anh and Khanl (2017) argue that the agents (directors) may be self-interested in the affairs of a company and consequently, may make decisions that are advantageous for themselves rather than for the shareholders. Accordingly, the codes of corporate governance have attempted to reduce this agency problem by providing for a

system of accountability and transparency to the stakeholders concerned. In other words, directors have to report on the conduct and outcome of their managerial activities and demonstrate how these actions will positively affect shareholders and other external parties.

Another theory of corporate governance pertains to the stewardship theory which states that a steward (director) needs to protect and maximise shareholder's wealth through a firm's performance. In achieving this objective, the stewards are satisfied and motivated once organisational success is attained. In this respect, corporate governance recommends for a reward system for directors to encourage them to act more autonomously such that shareholders' returns are maximized. In this manner, directors take ownership of their decisions and implement the necessary actions diligently.

Closely linked to the principle of a scarcity of resources is the resource dependency theory which focuses on the role of directors to provide access to resources needed by the company. This theory emphasizes that directors need to consider the allocation of resources with due respect to the organisational functioning, a firm's performance and its survival. Lastly, the transaction cost theory suggests that if the transaction cost of using external parties to supply raw materials or other assistance to the company is very high, then it is preferable that the company undertake that transaction itself. This is because for each contract entered into by the company, there are costs associated per transaction.

2.3 Relationship between Gender Diversity and Firm Performance

Existing literature has also put forward some other corporate governance theories that emphasize on board gender diversity and corporate performance. For instance, Noland, Moran and Kotschwar (2016) advance that firms are likely to benefit from value maximisation if the relevant boards comprise of a mixture of skills and gender. The authors position that such representation will imply that the respective firms do not discriminate and also reflects the dynamic functioning of the board of directors, which gives rise to an environment conducive for superior performance. Along the same lines, Bilimoria (2000a) makes a strong case for gender diversity on corporate boards. He found out that in the Fortune 500 listed companies, overall financial status was higher in the most profitable 50 of the 500 companies which have female directors on their boards. The author argued that women have a good view on market, environmental and ethical issues and this has a good impact on the decision-making process by board. For instance, it was a female director from Nike who had suggested the designation of shoes and sportswear for women.

In addition, corporate reputations are enhanced by the presence of women on board and some major investors prefer to invest in enterprises showing diversity in board appointments. To support this argument, Brammer, Millington and Pavelin (2008) have found that there is a reputational effect with a female presence at the board's level from a customer perspective. This implies that people favourably view gender diversity on corporate boards especially in those sectors that operate close to final consumers.

Furthermore, Post and Byron (2016) have made use of various corporate governance theories such as the agency theory, social identity theory, social categorisation theory and the upper echelons theory to invoke the link between gender diversity on corporate boards and firm's performance. The authors have statistically combined the results from 140 studies and examined whether these results vary by firm's legal or regulatory and socio-cultural context. They concluded that gender diversity has a positive effect on firms' financial outcomes and this impact is more flagrant in countries that have stronger shareholder protections. Along similar lines, Alazanni et al. (2017) conducted an empirical study that concluded the

existence of a positive relationship between social performance and the presence of female directors on the board of directors of Malaysian firms. Also, Kilic and Kuzey (2019) investigated the relationship between board gender diversity and firm performance of listed entities in Istanbul and found that there is a positive impact from female directors involvement on firm's financial performance, which was measured in terms of return on assets, return on equity and return on sales.

Yet, there are past studies conducted on the subject matter of this research which argue that there is no or little relationship between gender diversity and firm's performance. For example, Pletzer et al. (2015) analysed data of 20 studies that were based on 3097 companies and this empirical study demonstrated that the overall weighted correlation between the proportion of females on corporate boards and firm performance was small and relatively insignificant. A more in-depth study was conducted by Jeong and Harrison (2016) to assess the impact of gender diversity on both short-term and long-term financial position of companies. The authors made use of a sample of 146 primary studies conducted in 33 different countries and the results concluded that female representation in the upper echelons such as top management teams and Chief Executive Officer positions may affect firm performance. Nevertheless, the study illustrated that female involvement in upper managerial roles is positively and weakly related to forms of long-term financial performance whereas negatively and weakly related to short-term stock market returns. In contrast, Anh and Khanh (2017) assessed data for 880 listed companies in developed countries over a nine-year period and the results showed that gender diversity has a negative effect on firm's market performance.

Due to the differing findings from existing literature, it is incumbent to conduct an empirical analysis to find the relationship between gender diversity on corporate boards in Mauritius and companies financial performance. This study is also important because as of date, there is no research that has been carried out to show cause and effect of gender balance especially that the new Code emphasizes on this particular criteria as being part of good governance principles.

3. RESEARCH METHODOLOGY

3.1 Research Statement and Hypotheses

The research under this paper intends to assess the relationship between gender diversity on corporate boards and firm's performance. While gender diversity is measured by the number of female members on boards of directors and the proportion of women on these boards, financial performance of the companies is measured by the return on total assets, return on equity and leverage each. In particular, as mentioned earlier, the following hypotheses are to be tested:

H₁: There is a positive relationship between the number of women on boards and return on assets

H₂: There is a positive relationship between the proportion of women on boards and return on assets

H₃: There is a positive relationship between the number of women on boards and return on equity

H₄: There is a positive relationship between the proportion of women on boards and return on equity

H₅: There is a positive relationship between the number of women on boards and leverage

H₆: There is a positive relationship between the proportion of women on boards and leverage

3.2 Research Design

A panel data from 40 companies that are listed on the Official Market of the SEM covering a four-year period 2014 to 2018 was used for this empirical study. In essence, it is common for studies of this nature to use data sets with a time-series and a cross-sectional dimension to assess financial performance (Noland, Moran and Kotschwar (2016), Brammer, Millington and Pavelin (2008) and Pletzer et al. (2015)). In addition, data is obtained from the annual reports of each entity concerned that are publicly made available or that are obtained upon request from the company itself.

3.3 Data Analysis and Limitation of the Research Method

The data collected from the annual reports of companies are used to calculate some ratios that are representative of the financial status of the entities involved. Basically, Return on Assets (ROA) is defined as the ratio operating profit to total assets, Return on Equity (ROE) is the ratio operating profit to total equity and Leverage is the ratio total liabilities to total equity.

In order to examine the relationship between the gender diversity and firm performance variables, it is imperative to conduct a test of independence which is a method used to examine the differences between independent groups. The techniques used vary depending on whether the factor in question follows a normal distribution or not. Thus, a test of normality is carried out on the data collected on the SPSS software, and for this purpose, the skewness and kurtosis values of each variable are calculated to see if they fall within the acceptable range for the data to be considered as being normally distributed. In principle, according to Hair et al. (1998), George and Mallery (2010) and Gravetter and Wallnau (2014), if the skewness and kurtosis values fall between -2 and +2, then data is deemed to be normally distributed. Consequently, if the data collected follows a normal distribution, then the independent sample t-test and ANOVA (F-test) can be used, otherwise, non-parametric tests such as Mann-Whitney U-test and Kruskal-Wallis test are applied.

Furthermore, to examine the interdependence between the variables, the correlation test is used. The method to be applied differs as to whether data is normally distributed or not. If the data collected follows a normal distribution, the Pearson's correlation coefficient is applied, otherwise, Spearman's correlation coefficient is used. A correlation coefficient is the main result of a correlation and it ranges from -1 to +1. **Zou et al. (2003)** have interpreted the correlation coefficient value derived as follows:

Correlation Coefficient Between:	Description:
-0.2 and +0.2	Little or No Correlation
+0.2 and +0.4 or -0.4 and -0.2	Very Weak Correlation
+0.4 and +0.6 or -0.6 and -0.4	Weak Correlation
+0.6 and +0.8 or -0.8 and -0.6	Moderate Correlation
+0.8 and +1 or -0.8 and -1	High Correlation

Table 1: Description of Correlation Coefficients

However, one limitation remains with this methodology due to the fact that this research relies heavily on the availability of annual reports of the target population and there is the risk that these reports may not be shared for some years. Hence, the findings of this study relate only to companies whose annual reports are made available.

4. FINDINGS AND ANALYSIS

4.1 Descriptive Statistics

4.1.1 Population Data

Out of the 40 companies listed on the Official Market of the SEM, the annual reports of only 29 of them were made available for all the four years under the study. The other 11 companies were contacted by phone and email but either no reply was received from them or the annual reports of only one or two years were provided but not the complete set of the four year period. As such, these 11 companies were omitted from the population size. The sample size, therefore, accounts for 72.5% of the target population, which Mugenda and Mugenda (2003) considers to be “very good” to proceed with the study.

Industry

In total, there were 29 companies used in this study and these are spread across 6 industries. The below Table 1 provides a classification of the companies according to their respective sectors in which they operate:

Industry	Number of Companies	Percentage
Financial Services	7	24.1%
Banking	2	7%
Tourism	2	7%
Food and Restauration	3	10.3%
Transport	1	2.9%
Manufacturing, Construction, Wholesale Trade and Retail Trade	14	48.7%
Total	29	100%

Table 2: Classification of respondents as per Industry

It is noted that the sample is largely dominated by entities that are engaged in the manufacturing, construction, wholesale trade and retail trade industry which account for 48.7% of the sample size. Conversely, only one entity listed on the Official Market of the SEM that is involved in the transport sector has provided us with their annual reports for all the four year period under the study, which corresponds to 2.9% of the sample population.

4.1.2 Summary Statistics

The means and standard deviations of all the 29 entities under the study are calculated over the four-year period from 2014 to 2018 and the results are illustrated in Table 2 below.

Details	Means	Standard Deviations	Skewness	Kurtosis
ROA	0.465	0.076	1.458	0.31
ROE	0.078	0.123	0.394	1.819
Leverage	0.507	2.101	1.378	1.695
Number of Women Directors on Board	0.983	0.796	0.659	0.25
Proportion of Women on Board	0.104	0.094	0.812	-0.163
Total Number of Directors on Board	10.491	2.428	0.241	1.282

Table 3: Descriptive Statistics of Entities under the Study

From the information collected from the 116 annual reports covering the years 2014 to 2018, the average mean calculated for the ROA is 46.5%, ROE is 7.8%, leverage is 50.7%, proportion of women on board is 10.4%. In addition, the average board size is 10.5, the average number of women on board is 0.9 while the average proportion of women on board is 0.1. These figures depict a low level of women participation on corporate boards in Mauritius.

4.2 Findings of the Study

In order to investigate whether there is a relationship between gender diversity and firm performance, some further statistical analysis tests are carried out on the SPSS Software. As explained earlier, gender diversity is measured by the number of women on boards and the proportion of women on boards while firm performance is measured by ROA, ROE and leverage.

4.2.1 Relationship between Number of Women on Boards and ROA

Based on the results illustrated in Table 2 above, the skewness and kurtosis values obtained for each of the Number of Women on Boards and the ROA variable show that data is normally distributed since these values fall within the range of -2 and 2. Accordingly, the Pearson's correlation coefficient test is applied.

Correlation Coefficient

From the Pearson's correlation coefficient test, a correlation coefficient of 0.54 is obtained which indicates that there is a positive correlation between the number of women on boards and ROA. Nevertheless, since results from Pearson's correlation analysis do not show cause and effect, it is imperative to conduct some advanced tests to figure out the extent to which the independent variable being a proportion of women on corporate board impacts on the dependent variable being ROA.

Regression Analysis

A bivariate regression analysis is carried out and the results are displayed below.

Model	Adjusted R ²	R ² Change	F Change	Significant F Change
A	0.259	0.286	10.802	0.003

Table 4: Results of Regression Analysis for Proportion of Women on Boards on ROA

The coefficient of determination, r^2 , measures the percentage of variation in the dependent variable that is explained by the independent variable. Table 4 shows that the value of r^2 is 0.286 which indicates that 28.6% of the variation in ROA is explained by the number of women on boards. Moreover, the significance of the regression model is tested by the F-statistic which determines whether the regression model explains a significant proportion of the variation in ROA. Since the calculated F-statistic is 10.8 and the Significant F Change is 0.003 ($p < 0.05$), these results imply that Model A is statistically significant at 0.05 significance level. Also, the β value derived from the regression analysis ($\beta = 0.46$) suggests that the number of women on corporate boards has a direct positive impact on ROA. Hence, Hypothesis H₁ is supported and it is concluded that there is a positive relationship between the number of women on boards and ROA.

4.2.2 Relationship between the Proportion of Women on Boards and ROA

Table 2 illustrates that data is normally distributed since the skewness and kurtosis values obtained for each of the Proportion of Women on Boards and the ROA variable fall within the range of -2 and 2. Accordingly, the Pearson's correlation coefficient test is applied.

Correlation Coefficient

From the Pearson's correlation coefficient test, a correlation coefficient of 0.58 is obtained which indicates that there is a correlation between the proportion of women on boards and ROA. Nevertheless, since results from Pearson's correlation analysis do not show cause and effect, it is imperative to conduct some advanced tests to figure out the extent to which the independent variable being a proportion of women on corporate board impacts on the dependent variable being ROA.

Regression Analysis

A bivariate regression analysis is carried out and the results are displayed below.

Model	Adjusted R ²	R ² Change	F Change	Significant F Change
B	0.312	0.337	13.7	0.001

Table 5: Results of Regression Analysis for Proportion of Women on Boards on ROA

The coefficient of determination, r^2 , measures the percentage of variation in the dependent variable that is explained by the independent variable. Table 5 shows that the value of r^2 is 0.337 which indicates that 33.7% of the variation in ROA is explained by the proportion of women on boards. Moreover, the significance of the regression model is tested by the F-statistic which determines whether the regression model explains a significant proportion of the variation in ROA. Since the calculated F-statistic is 13.7 and the Significant F Change is 0.001 ($p < 0.05$), these results imply that Model B is statistically significant at

0.05 significance level. Also, the β value derived from the regression analysis ($\beta = 0.41$) suggests that the proportion of women on corporate boards has a direct positive impact on ROA. Hence, Hypothesis H₂ is supported and it is concluded that there is a positive relationship between the proportion of women on boards and ROA.

4.2.3 Relationship between Number of Women on Boards and ROE

As shown in Table 2 above, the skewness and kurtosis values obtained for each of the Number of Women on Boards and the ROE variable show that data is normally distributed since these values fall within the range of -2 and 2. Accordingly, the Pearson’s correlation coefficient test is applied.

Correlation Coefficient

From the Pearson’s correlation coefficient test, a correlation coefficient of 0.3 is obtained which indicates that there is a correlation between the proportion of women on boards and ROA. Nevertheless, since results from Pearson’s correlation analysis do not show cause and effect, it is imperative to conduct some advanced tests to figure out the extent to which the independent variable being proportion of women on corporate board impacts on the dependent variable being ROE.

Regression Analysis

A bivariate regression analysis is carried out and the results are displayed below.

Model	Adjusted R²	R² Change	F Change	Significant F Change
C	0.058	0.091	2.713	0.111

Table 6: Results of Regression Analysis for Number of Women on Boards on ROE

The coefficient of determination, r^2 , measures the percentage of variation in the dependent variable that is explained by the independent variable. Table 6 shows that the value of r^2 is 0.091 which indicates that 9.1% of the variation in ROE is explained by the proportion of women on boards. Moreover, the significance of the regression model is tested by the F-statistic which determines whether the regression model explains a significant proportion of the variation in ROE. Since the calculated F-statistic is 2.713 and the Significant F Change is 0.111 ($p > 0.05$), these results imply that Model C is statistically not significant at 0.05 significance level. Hence, Hypothesis H₃ is rejected and it is concluded that there is no relationship between the number of women on boards and ROE.

4.2.4 Relationship between the Proportion of Women on Boards and ROE

Table 2 illustrates that data is normally distributed since the skewness and kurtosis values obtained for each of the Proportion of Women on Boards and the ROA variable fall within the range of -2 and 2. Accordingly, the Pearson’s correlation coefficient test is applied.

Correlation Coefficient

From the Pearson’s correlation coefficient test, a correlation coefficient of 0.4 is obtained which indicates that there is a correlation between the proportion of women on boards and ROA. Nevertheless, since results from Pearson’s correlation analysis do not show cause and effect, it is imperative to conduct some advanced tests to figure out the extent to

which the independent variable being proportion of women on corporate board impacts on the dependent variable being ROE.

Regression Analysis

A bivariate regression analysis is carried out and the results are displayed below.

Model	Adjusted R²	R² Change	F Change	Significant F Change
D	0.062	0.096	2.858	0.102

Table 7: Results of Regression Analysis for Proportion of Women on Boards on ROE

The coefficient of determination, r^2 , measures the percentage of variation in the dependent variable that is explained by the independent variable. Table 7 shows that the value of r^2 is 0.096 which indicates that 9.6% of the variation in ROE is explained by the proportion of women on boards. Moreover, the significance of the regression model is tested by the F-statistic which determines whether the regression model explains a significant proportion of the variation in ROE. Since the calculated F-statistic is 2.858 and the Significant F Change is 0.102 ($p > 0.05$), these results imply that Model D is statistically not significant at 0.05 significance level. Hence, Hypothesis H₄ is rejected and it is concluded that there is no relationship between the proportion of women on boards and ROE.

4.2.5 Relationship between Number of Women on Boards and Leverage

The skewness and kurtosis values obtained for each of the Number of Women on Boards and the leverage variable as set out in Table 2 above, show that data is normally distributed since these values fall within the range of -2 and 2. Accordingly, the Pearson’s correlation coefficient test is applied.

Correlation Coefficient

From the Pearson’s correlation coefficient test, a correlation coefficient of 0.5 is obtained which indicates that there is a correlation between the proportion of women on boards and leverage. Nevertheless, since results from Pearson’s correlation analysis do not show cause and effect, it is imperative to conduct some advanced tests to figure out the extent to which the independent variable being number of women on corporate board impacts on the dependent variable being leverage.

Regression Analysis

A bivariate regression analysis is carried out and the results are displayed below.

Model	Adjusted R²	R² Change	F Change	Significant F Change
E	0.025	0.011	0.311	0.582

Table 8: Results of Regression Analysis for Number of Women on Boards on Leverage

The coefficient of determination, r^2 , measures the percentage of variation in the dependent variable that is explained by the independent variable. Table 8 shows that the value of r^2 is 0.011 which indicates that 1.1% of the variation in leverage is explained by the

number of women on boards. Moreover, the significance of the regression model is tested by the F-statistic which determines whether the regression model explains a significant proportion of the variation in leverage. Since the calculated F-statistic is 0.311 and the Significant F Change is 0.582 ($p > 0.05$), these results imply that Model E is statistically not significant at 0.05 significance level. Hence, Hypothesis H₅ is rejected and it is concluded that there is no relationship between the number of women on boards and leverage.

4.2.6 Relationship between the Proportion of Women on Boards and Leverage

The skewness and kurtosis values obtained for each of the Proportion of Women on Boards and the leverage variable as set out in Table 2 above, show that data is normally distributed since these values fall within the range of -2 and 2. Accordingly, the Pearson's correlation coefficient test is applied.

Correlation Coefficient

From the Pearson's correlation coefficient test, a correlation coefficient of 0.4 is obtained which indicates that there is a correlation between the proportion of women on boards and leverage. Nevertheless, since results from Pearson's correlation analysis do not show cause and effect, it is imperative to conduct some advanced tests to figure out the extent to which the independent variable being number of women on corporate board impacts on the dependent variable being leverage.

Regression Analysis

A bivariate regression analysis is carried out and the results are displayed below.

Model	Adjusted R²	R² Change	F Change	Significant F Change
F	0.035	0.002	0.066	0.8

Table 9: Results of Regression Analysis for Proportion of Women on Boards on Leverage

The coefficient of determination, r^2 , measures the percentage of variation in the dependent variable that is explained by the independent variable. Table 9 shows that the value of r^2 is 0.002 which indicates that 0.2% of the variation in leverage is explained by the proportion of women on boards. Moreover, the significance of the regression model is tested by the F-statistic which determines whether the regression model explains a significant proportion of the variation in leverage. Since the calculated F-statistic is 0.066 and the Significant F Change is 0.8 ($p > 0.05$), these results imply that Model F is statistically not significant at 0.05 significance level. Hence, Hypothesis H₆ is rejected and it is concluded that there is no relationship between the proportion of women on boards and leverage.

4.3 Summary of Findings and Discussion

For the purpose of this study, 6 hypotheses were established. 2 independent variables being the number of women on boards and the proportion of women on boards were used to measure the impact of gender diversity on a firm's financial performance. The dependent variables were the ROA, ROE and leverage. In brief, this empirical study shows that:

- a unit increase in the number of women on boards increases ROA at a unit of 28.6%, and

- a unit increase in the proportion of women on boards increases ROA at a unit of 33.7%.

Consequently, the results of the hypothesis test are summarised in the below Table 10.

Hypothesis	Results
H ₁ : There is a positive relationship between the number of women on boards and return on assets	Supported
H ₂ : There is a positive relationship between the proportion of women on boards and return on assets	Supported
H ₃ : There is a positive relationship between the number of women on boards and return on equity	Rejected
H ₄ : There is a positive relationship between the proportion of women on boards and return on equity	Rejected
H ₅ : There is a positive relationship between the number of women on boards and leverage	Rejected
H ₆ : There is a positive relationship between the proportion of women on boards and leverage.	Rejected

Table 10: Summary of Results of Hypothesis Testing

Table 10 illustrates that out of the 6 hypotheses, only 2 are supported. This study has conducted a cross-sectional and time series analysis by firstly measuring the financial profitability of the target companies for 2 years prior to the coming into effect of the New Code of Corporate Governance which has made it compulsory for firms listed on the SEM to achieve gender diversity on their respective boards. Thereafter, the financial performance of the entities concerned is also calculated for a 2 year period after the new Code came into effect.

Nevertheless, while gathering data, it was remarkably noted that despite this new provision in the Code, several listed companies are not abiding by the gender diversity requirement. Various companies do not have female representation on their corporate boards which explains the low average mean value of 0.1 for the proportion of women on board (Table 3). A high average means ROA (46.5%) is obtained which suggests that the entities concerned are able to squeeze profits successfully from their respective assets whereas the other financial ratios such as ROE and leverage do not fairly represent encouraging results. Yet, while a positive effect has been found out on ROE and leverage from gender diversity on boards, the results demonstrate that these impacts are not statistically significant. On the other hand, the empirical study has shown that there is a positive significant relationship between gender diversity and ROA.

5. CONCLUSION AND RECOMMENDATIONS

This research paper aims at investigating the contribution of gender diversity to the financial profitability of firms. Three indicators are used to measure the financial performance of entities, mainly, ROA, ROE and leverage. Admittedly, it is concluded that gender diversity on corporate boards has a positive significant effect on ROA and hence, women's participation at board's level enhances the financial performance of firms and also improve the internal functioning of companies. Nevertheless, gender diversity on corporate boards in Mauritius is still at an infancy stage and this is evidenced by the unfortunate low level of female representation on boards of companies used in this study. Consequently, the impact of gender diversity on ROE and leverage could not be assessed with accuracy since no significant effect on these ratios has been noted.

This paper recommends that gender diversity needs to be promoted in firms to achieve greater performance. In addition, it is recommended that some future research needs to be conducted to extend the sample population to all public interest entities which have to mandatorily comply with the new Code. It would also be of interest to other researchers to conduct a multivariate regression analysis by using additional indicators of corporate governance such as the size of the board, qualifications and experience of board members, proportion of independent directors on boards or separation of leadership amongst others. These suggestions will help to analyse better and make a far productive decision when it comes to making a conclusion on the variables.

REFERENCES

- Alazanni, A., Hassanein, A and Aljanadi, Y. 2017. "Impact of gender diversity on social and environmental performance: evidence from Malaysia". *The International Journal of Business in Society*. Vol. 17, Issue 2.
- Andersson, K. 2018. "Impact of gender diversity on social and environmental performance: evidence from Malaysia". *Corporate Governance: The International Journal of Business in Society*. Vol. 17, Issue 2.
- Anh, V. T. and Khanh, B. P. 2017. "Impact of board gender diversity on firm value: International Evidence". *Journal of Economics and Development*. Vol. 19, No. 1.
- Bilimoria, D. 2000a. "Building the business case for women corporate directors". In Burke R. J. and Mattis, M. (Eds) (2000). *Women on Corporate Boards of Directors: International Challenges and Opportunities*. Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 25-40.
- Brammer, S., Millington, A. and Pavelin, S. 2008. "Corporate reputation and women on the board". *British Journal of Management*, Vol. 3, Issue 6.
- Cadbury Committee. 1992. "Report of the Committee on the Financial Aspects of Corporate Governance". Available at <https://ecgi.global/download/file/fid> [Accessed on 15 September 2019]
- EgonZehnder. 2016. "Global board diversity analysis 2016". Available at <https://www.egonzehnder.com/global-board-diversity/global-board-diversity-analysis-2016> [Accessed on 13 September 2019].
- George, D. and Mallery, M. 2010. *SPSS for Windows Step by Step: A simple guide and reference*. 10th Edition. Boston, MA: Pearson.
- Gravetter, F. and Wallnau, L. 2014. *Essentials of Statistics for the Behavioral Sciences*. 8th Edition. Belmont, CA: Wadsworth.
- Hair, J., Anderson, R., Tathman, R. and Black, W. 1998. *Multivariate Data Analysis*. 5th Edition. Upper Saddle River, NJ: Prentice Hall.
- Hay Group. 2015. "Board Remuneration and Practice in Mauritius". *ION News* [Online]. Available at <http://ionnews.mu/wp-content/uploads/2015/07/Survey-Directors-Remuneration-Summary-1.pdf> [Accessed 26 September 2019].
- Ishmael, O. 2018. "Good corporate governance and organisational performance: An empirical analysis". *International Journal of Humanities and Social Science*, Vol. 4, No 7(1).
- Jeong, S. and Harrison, D. A. 2016. "Glass breaking, strategy making and value creating: Meta-analytic outcomes of females as CEOs and TMT members". *Academy of Management Journal*, Vol. 2, Issue 3.

- Khan, H., Hassan, R. and Marimuthu, M. 2018. "Diversity on corporate boards and firm performance: An empirical evidence from Malaysia". *American Journal of Social Sciences and Humanities*. Vol. 2, Issue 1.
- Kilic, R. and Kuzey, Y. 2019. "How firm's performance is affected by gender diversity". *International Journal of Law and Management*. Vol. 5, Issue 2.
- King Report IV. 2016. "Report on Corporate Governance for South Africa". Available at <https://www.adams.africa/wp-content/uploads/2016/11/King-IV-Report.pdf> [Accessed on 15 September 2019]
- Klein, K. 2017. "Does gender diversity on boards really boost company performance?". *Social Impact*. Vol. 3, Issue 3.
- Kristie, J. 2019. "Rethinking corporate governance for the 21st Century". *African Journal of Legal Studies*. Vol. 8, Issue 2.
- Lenard, M. J., Yu, B. and Wu, S. 2018. "Impact of board gender diversity on firm risk". *Managerial Finance*. Vol. 40, Issue 8.
- Madhani, J and Pankaj, M. 2017. "Diverse roles of corporate board: A review of various corporate governance theories". *IUP Journal of Corporate Governance*. Vol. 16, Issue 2.
- Mathiesen, R. 2018. "Why corporate governance matters?". *Journal of Asian Corporate Governance*. Vol. 62, Issue 5.
- McRitchie, J. 2019. "Corporate governance defined: Not so Easily". *Corporate Governance*. Vol. 3, Issue 2.
- Mugenda, O. M. and Mugenda, A. G. 2003. "*Research Methods: Qualitative and quantitative approaches*". Nairobi: African Centre for Technology Studies.
- Mumba, B. 2017. "Board gender diversity and firm performance: An empirical evidence". *Journal of Legal Services*. Vol. 3, Issue 2.
- Noland, M., Moran, T. and Kotschwar, B. 2016. "*Is gender diversity profitable? Evidence from a global survey*". Peterson Institute for International Economics. Oxford Publishing: London.
- Pletzer, J. L., Nikolova, R., Kedzior, K. K and Voelpel, S. C. 2015. "Does gender matter? Female representation on corporate boards and firm financial performance". *PloS One*, Vol. 10, No. 6.
- Post, C. and Bryon, K. 2016. "Women on boards of directors and corporate social performance". *International Review*. Vol. 52, Issue 2.
- Zou, K. H., Tuncali, K. and Silverman, S. G. 2003. "Correlation and simple linear regression". *Radiology*. Vol. 3, Issue 227.