Do Women in Top Management Affect Firm Performances? Analysis of Public Quoted Companies in Sri Lanka

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Abstract

There are many studies in the linkage between women's participation in director board and its impact on firm's financial performance in the setting of developed economies. Conversely, the shortfall of literature and the lack of knowledge regarding this issue in developing economies motivated to undertake the current study. Hence this study makes contribution to the literature by addressing the nature in a developing economy with reference to the Sri Lankan context. The main objective of the study is to examine the relation between women's participation in director board and its impacts on the financial performance of firms in Sri Lanka.

The quantitative research approach, using panel data regression analysis was employed for the study. The sample was thirty Sri Lankan firms which are listed in the Colombo Stock Exchange from 2011-2015. The quantitative data were taken from the annual reports of the sample firms and it was analyzed using E-views 07 under pooled OLS method and Fixed Effect model. The agency theory, stewardship theory and resource dependence theory were used to explain the relationship between gender diversity in the board room and firm's financial performances. The return on assets was the proxy for firm's financial performances and proportion of female directors in the director board and board size were explanatory variables. The control variables were firm size denoted by the total assets, market value denoted by the Tobin's Q ratio and the market price per share.

The results of the Pooled OLS reflected that there is a significant positive relationship between gender diversity of the director board and firm's financial performances. The fixed effect model also revealed the positive association between gender diversity of the director board and firm's financial performances, but it is not significant.

Keywords: Gender Diversity, Firm's Financial Performance, Panel Data Regression.

INTRODUCTION

Background of the study

A recent report by the International Labor Organization (ILO) (2014) shows a trend that workforce diversity has been increasing all over the world. The global employment-to-population ratio stood at 59.6% in 2013, unchanged from 2012. The male employment-to-population ratio stood at 72.2 per cent and the female ratio at 47.1 per cent, both essentially unchanged from the previous year. The global male unemployment rate edged up to 5.8 per cent in 2013 from 5.7 per cent in 2012, while the rate for women remained unchanged at 6.4 per cent.

Interestingly, the Department of Census and Statistics, Sri Lanka found that in Sri Lanka the percentage of women in the workforce had increased from 31.2% in 2010 to 34.7% in 2014. In the context of women's participation in top management, the latest census conducted by Catalyst (2014), reflects several developed countries have higher female participation rate. As an example, Norway – 40.5%, Sweden – 27%, United Kingdom – 20.7% and United States - 16.9%. In Fortune 500's companies, women held 15.7% of board seats in 2010 and increased to 16.9% in 2013 by achieving a growth of 7.6%. It has become a global trend to appoint female members to the companies' director boards.

Even though numerous empirical studies on this issue with respect to many countries exist, a lesser amount of researches have been done in the Sri Lankan context. On the other hand, it is unjustifiable to generalize evidences and findings of those countries to the Sri Lanka since every country engages with their own cultural and social perspectives on the issue of female labor force participation.

So, this study provided empirical analysis on the issue and expand the current literature by studying impact of the presence of women board members on firm's financial performance in Sri Lankan context. Thus, the study's purpose was to explore the relationship between the presence of Sri Lankan women on boards and firm's financial performance.

Research Problem

In Contradictory to the present global trend, Sri Lanka faces the issue of higher unemployment and underemployment among educated women. Even though the women enrollment to the universities is 58.5%, unemployment of educated female is still higher in the Sri Lanka.

Table 1: Female labor force participation

Indicator	Male	Female
University enrollment	41.5%	58.5%
Labor force participation	66.6%	32.8%
Unemployment rate	4.3%	86%

Source: Gender Profiling of Sri Lankan universities: Chandra Gunawardane

In order to empowering the women participation to the top-level positions, it was very essential to promote the significance of the women presence in director board on firm's performances. To do so it should have substantial studies on this nature.

However, the shortfall of literature on the effects of female participation to the director board on firm's financial performances and little attention of the responsible parties and the lack of knowledge of this issue in the Sri Lankan context motivated to undertake the current study. In order to fill this research gap, the study was added immensely to the existing literature of Sri Lankan economy. Therefore, the research problem of this study was to find out whether there is any relationship between female presences in director board and firm's financial performances. The primary objective of the study was identifying the impact of female presence in director board on firm's financial performances.

Research Question:

Does female participation in the firm's director board influence the financial performance of Sri Lankan publicly-listed firms?

Objectives of the Study

The primary objective of this study is to examine the link between women's participation in director board and its impacts on the financial performance of firms in the Sri Lankan context. The secondary objectives are;

- Identify board composition of Sri Lankan public quoted companies.

- Provide guidelines to introduce gender equality practices in boardroom by looking into the implications of this study.

LITERATURE REVIEW

Theoretical Reviews

The roles of board members, as well as the effect of gender diversity of board members on firm performance, are described in the theories. The agency theory, stewardship theory and resource dependence theory are mostly used to explain the relationship between gender diversity in the boardroom and a firm's financial performance.

Agency Theory:

Agency theory addresses the relationship where in a contract 'one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent (Jensen & Meckling 1976).

Jensen and Meckling (1976) and Diepen (2015) identified that the board of directors is an important mechanism for controlling and monitoring managers and for resolving the agency problems between managers and shareholders. Thus, relying on this theory, board diversity can affect firm performance and increase board independence because members from different experiences, ages, backgrounds, and genders might control firms' managers and impact firm performance. (Al-Shammari & Al-Saidi 2014)

In this theoretical framework, board characteristics such as size, independence and diversity can affect the value creation process. That means, diversity increases board independence because people with a different gender, ethnicity or cultural background might ask questions that would not have come from directors with more traditional backgrounds, bringing benefits in firm performance. (Schwizer et al. 2012)

Stewardship Theory:

According to (Lazzaretti et al. 2014) the stewardship theory indicates that higher level management also has non-financial motives that include the demand for achievement and recognition, the intrinsic satisfaction of successful performance, respect for authority and the work ethic.

Based on the stewardship theory, gender diversity in the boardroom may affect firm performance through the assumption that women on boards may act as the stewards or guardians of the firm's assets, have other than economical needs, and tend to be more involved in management (Prihatiningtias 2012).

Several prior studies that investigated the connection between women board members and firm performance, have used the stewardship theory as one of their theoretical foundations (Terjesen & Singh 2008; Prihatiningtias 2012).

Resource Dependence Theory:

Resource dependence theory (RDT) is the study of how the external resources of organizations affect the behavior of the organization. The procurement of external resources is an important ideology of both the strategic and tactical management of any company (Pfeffer & Salancik 1978).

According to Diepen (2015) a more diverse board might have more access to different types of resources. For example, a more diverse board is better able to understand the customer group, because a more diverse board has different insights.

In addition to that Diepen (2015) states following also, "*Boards that are diverse in ethnicity, gender, experience, education and background possess a considerable range of different knowledge and skills. Directors on diverse boards have greater insights into markets, customers, employees and business opportunities. This leads to a better understanding of business conditions, and in turn to better company performance*". Therefore, a positive relationship between board diversity and firm performance is expected.

EMPIRICAL EVIDENCES

Evidences from Developed Economies

As per the Catalyst Organization a greater proportion of companies in South Africa (59.3%), the UK (60.0%), Canada (65.6%) and the United States (85.2%) had at least one female executive manager. But when compare to the situation in Australia it fell behind each of its peers. Between 1994 and 2008, a period of record economic growth for Australia, the percentage of women CEOs and direct reports in the ASX 200 increased

from 8% to just 10.7%. Bridge (2009) said that the issue isn't the level of workforce participation or education.

Women make up around half of all workforce entrants. Moreover, they are graduating in equal or greater numbers to men in economics, commerce, business and law faculties. By the time they reach senior executive level, however, their proportion has fallen to 10.7%, while only 2% get to sit in the CEO's chair.

In favor to that Australian situation Clift & Wang (2009) conclude that gender and racial diversity do not have significant influence on Australian corporate sector performance.

In the context of Canada, Board independence is positively related to social performance but shareholder orientation is not. In addition, a positive relationship between social performance with both financial performance and debt is found (Sainty 2009; Burke 2003).

In the context of France, it reflects somewhat ambiguous relationship between female presence in the top management and firm financial performances. The study found that board gender diversity affects negatively the Tobin's Q and positively the return on asset (Danga & Nguyen 2014).

Schwizer et al., (2012) analyzed a sample of Italian listed companies during the period 2006-2008. The results show no statistically significant relationship between the number of female directors on boards and firm financial performance. The same results emerge with regard to the link between gender diversity and firm risk.

Diepen (2015) examined the relationship between board diversity and company performance in the Netherlands. Company performance is measured with return on assets (ROA), return on equity (ROE), Tobin's Q and total shareholder return (TSR) and there were no relationships found between the percentage of women directors and performance measurements.

According to the Ferreira & Adams, (2009), female directors have a significant impact on board inputs and firm outcomes. In a sample of US firms, they found that female directors have better attendance records than male directors and women are more likely to join monitoring committees. These results suggested that gender-diverse boards allocate more effort to monitoring. Accordingly, the study concluded that chief executive officer turnover is more sensitive to stock performance and directors receive more equity-based

compensation in firms with more gender-diverse boards.

By considering such fundamental relationship between female presence of director board and firm's performances the most of the developed countries already introduced advanced policies regarding favorable action in corporate governance that supports more women representation in the boardrooms. For example, Norway, Spain, Italy and France created laws on the presence of women on listed firm boards. Most of these legislative initiatives are based on the idea that the presence of women on boards could significantly affect the quality of the corporate governance system.

Evidences from Developing Economies

Even though the plethora of studies are conducted in favor of developed economies there were less studies carry out for the developing economies in relevant to the women in top management and firm financial performances.

The empirical analysis supports a positive relationship between the degree of female participation and firm financial performance in Chinese privately owned companies. The positive relationship is further strengthened by female top executives' human capital and social capital, consistent with the hypotheses (Ren & Wang 2011).

Situation in Hong Kong was examined by Man & Kong, (2011) in order to define the association between gender diversity in boardroom and firm financial performances. Tobin's Q ratio used as a proxy for firm financial performance for a sample of 138 companies listed on Hong Kong Stock Exchange for the financial year 2009. Contrary to results from a number of empirical studies, a significantly negative relationship and no causal relationship in between women in top management and financial performances are obtained.

Darmadi, (2011) examined the associations between diversity of board members and financial performance of the firms listed on the Indonesia Stock Exchange (IDX). The study found that both accounting and market performance have significant negative associations with gender diversity. However, result of the quantitative analysis carried out by Prihatiningtias, (2012) based on the Indonesian firms showed that gender diversity has both positive and negative influence on firm financial performance, which was measured by using ROA and Tobin's Q respectively.

Al-Shammari & Al-Saidi, (2014) investigated the link between Kuwait women serving as board directors and firms' performance in Kuwait as listed on the Kuwait Stock Exchange from 2009 to 2011. Overall, the study found that the presence of Kuwait women is not an effective mechanism for improving firm performance.

Wellalage & Locke, (2013) investigated demographic diversity of board members in the Sri Lankan boardroom and their effect on the firm financial performance. Board diversity is measured by gender, ethnicity, age, education and occupational diversity. After controlling for potential endogeneity, this study found that though board ethnicity and age diversity increase firm financial performance, board gender, education and occupational diversity reduce firm financial performance. Further, this study's results indicated Sri Lankan corporate boards are not fully diversified.

Even though there were many studies carried out for plethora of countries only few empirical evidences investigate the relationship based on Asian data. At the same time there is a shortage of similar studies focusing on Sri Lanka, hence, the situation in Sri Lanka is unclear.

METHODOLOGY

This study investigates the impact of female presence in director board on firm's financial performances in Sri Lanka using public quoted companies in the Colombo Stock Exchange (CSE). The study uses the quantitative approach because the research aims to examine the relationship between variables. Since this is the correlational research which involves the systematic investigation of relationship between two or more variables, the panel multiple regressions analysis technique and method of Ordinary Least Square will be used to estimate the parameters of the model.

CONCEPTUAL FRAMEWORK

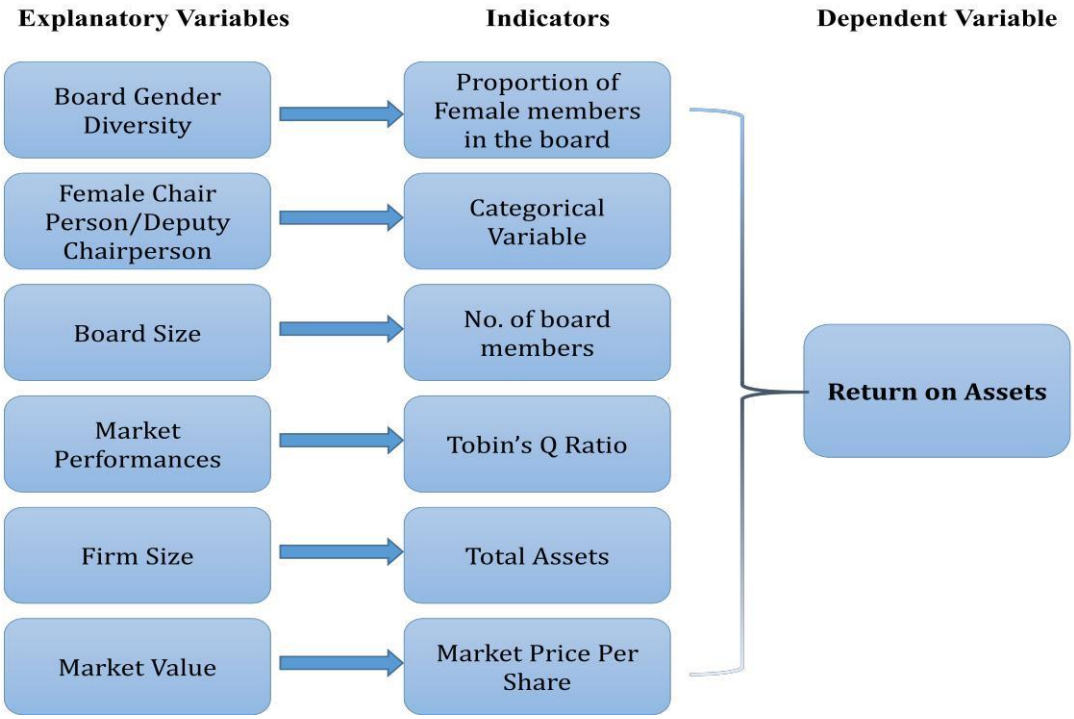

Figure 1: Conceptual Framework

Sample selection and data collection

The study uses a random sample of 30 companies from different industries listed in Colombo Stock Exchange. The data consist of companies in the years 2011 to 2015 (five years in a row). Because of this, the research is referred to as a panel or longitudinal study, since the data collect over a period of time, and summarize statistically (Hair et al. 1998). The years 2011 to 2015 will be selected due to the latest data available for the study and the financial and directorship data related to the study are mainly collected from two sources—namely, annual reports and financial statements attached to annual reports which are available in the Colombo Stock Exchange web site (www.cse.com).

Dependent Variables

The dependent variable use in the current study is firm's financial performances. The Return on Assets (ROA) used as the proxy for accounting based performance measure of the firm. Return on assets (ROA) is the basic measure of firm financial performance that represents the association between the net profit before interest and taxation earned and the assets owned by the firm. ROA is used in order to measure both the efficiency and the effectiveness in using the assets (the inputs) to earn income (the outputs). And also ROA is

a measure of the quality of corporate governance implementation in securing and motivating higher management efficiency (Heenetigala 2011). The ROA has been used widely as a variable in prior research which attempt to examine the relationship between women in top management and its influence on firm financial performance. (Ferreira & Adams 2009; Chapple & Humphrey 2013; Brammer et al. 2009).

Explanatory Variables

The independent variable use in this study is gender diversity (female presence) in the boardroom which measured by the proportion of female in director board and the total board size. (Al-Shammari & Al-Saidi 2014; Darmadi 2011; Man & Kong 2011). The percentage or proportion of female presence in the director board was utilized to measure gender diversity in the board room.

$$\text{Proportion of female in director board} = \frac{\text{Number of females in the board x}}{\text{Total Number of board members}}$$

The other explanatory variable uses in the study was board size which measured by the natural logarithm total number of board members. The purpose of using the natural logarithm value of the board size is to eliminate the dispersion of board sizes among the firms. Generally, suggest that the board size has relationship with firm performance. (Bathula 2008; Campbell & Mínguez-Vera 2008; Prihatiningtias 2012). In terms of board size, agency theory argued that small boards allow for effective controlling and monitoring as well as reducing the domination of the CEOs (Al-Shammari & Al-Saidi 2014).

Further, there is a categorical variable that measures the presence of a female chairman or a female deputy chairman. (Bjarnadottir 2013). The aim of using the above variable is to examine the impact of being a female in the highest position over the financial performances of the firm.

Control Variables

The study introduced some control variables namely, Tobin's q ratio, total assets and market price per share.

Many prior studies have used Tobin's Q ratio to measure firm efficiency. (Prihatiningtias 2012; Darmadi 2011; Al-Shammari & Al-Saidi 2014). This measure is commonly defined as firm value or market value of the firm and it can be calculated by summing the book value of total debt and value of total outstanding shares dividing by the book value of the total assets.

Firm size, proxies by total assets, is commonly used as a control variable in many prior research (Campbell & Mínguez-Vera 2008; Prihatiningtias 2012; Heenetigala 2011). These studies have found that firm size positively affects firm financial performance. In the present study, firm size was measured by the natural logarithm of total assets of the firm. The natural logarithm was used to normalize the data and minimize the value of standard deviation (Prihatiningtias 2012).

The market price per share is another control variable for the study and it reflects the price that the stock can be readily bought or sold in the current market place. Market price reveals what investors think the company is worth and how much they will pay to buy stock in the firm. The natural logarithm of MPS was used in order to normalize and minimize the value of standard deviation.

Hypotheses development

Based on the above comprehensive review of literature, the following hypotheses are formulated:

H_0: Gender diversity in the boardroom has no relationship with firm financial performance (as measured by Return on Assets).

H_1: Gender diversity in the boardroom has a relationship with firm financial performance (as measured by Return on Assets).

Model Formulation

In this analysis, the method of panel ordinary least squares (OLS) will be used to estimate the parameters of the multiple regression model. Many prior researches also used multiple regression analysis to identify the impact of women in top management on firm financial

performances. (Storvik & Teigen 2010; Bjarnadottir 2013; Al-Shammari & Al-Saidi 2014). Based on those studies the estimated OLS equation is written in a similar form to the general regression equation:

$$ROA = \beta_0 + \beta_1 * PROPOTION + \beta_2 * LOG\_SIZE + \beta_3 * LOG\_TOBQ + \beta_4 * LOG\_TA + \beta_5 * LOG\_MPS + \beta_6 * (FM\_CP=0) + u_i$$

Where;

ROA	= Return on Assets
β_0	= Intercept of the model
β	= Coefficient values associated with variables
PROPOTION	= Proportion of Female members in the board
LOG_SIZE	= Natural logarithm of actual board size
LOG_TOBQ	= Natural logarithm of Tobin's Q ratio
LOG_TA	= Natural logarithm of total assets
LOG_MPS	= Natural logarithm of market price per share
FM_CP	= Whether there is a female chairman or a female deputy chairman
u_i	= Error Term

Data Analysis Method

The panel multiple regression analysis was employed to test hypotheses and it is a statistical analysis to examine relationship between several independent variables with a single dependent variable under panel data sample (Gujarati & Porter 2009b). Both pooled Ordinary leased squares and fixed or random effects method should be employed in order to estimate the regression equation. The study should be carried out the Hausman test to identify whether to use fixed or random effects to run the multiple regression analysis. The statistical software used to run the analysis was E-views 07 because it was able to analyze panel data which is collected from different cross sections through a multiple time series.

In this study, parameters of the regression model are estimated using the Ordinary Least Squares method (OLS). There are few conditions that need to be fulfilled in order for the

output from the OLS regression to be a good estimation. The ideal condition consists of five assumptions, called the Gauss-Markov assumptions (Gujarati & Porter 2009b).

The Gauss-Markov theorem states that the regression model should have Best Linear Unbiased Estimators (BLUE). So, the Gauss-Markov assumptions were tested before carry out the final regression model according to the Gujarati & Porter (2009).

DATA ANALYSIS

Data Presentation

The study was able to identify the behavior and trend of female presence in the director board in the Sri Lankan publicly listed firms from 2011 to 2015 and results represent in the figure 02, figure 03 and figure 04.

Figure 02 reflects the development of the proportion of women in director board from 2011 to 2015 for Sri Lankan publicly listed firms with reference to the selected sample. In 2011 female participation to the director board was stood at 9% and it marginally increased up to 13% in 2015. The 4% growth rate of female presence in the director board within the 5-year period reflects positive sign for the Sri Lankan educated female's labor force participation. But Sri Lanka still far from having full gender equality in the boardrooms.

Even though the women hold approximately 13% of the total board seats, 70% of the firms have one or more female directors. (Figure 03) It means many firms were tending to higher females for their director boards in recent years.

According to figure 04, out of 30 firms in the sample, 04 of them (13%) had a female chairperson or a female deputy chairperson in 2011.That proportion has shown a substantial increase up to 20% in 2011 to 2012 and then the share of companies that presence female chairperson or deputy chairperson remain constant at 17% from 2012 to 2015. The above identified behavior and trend of female director board participation of Sri Lankan publicly listed firms create an interesting platform for the further analysis of this study.

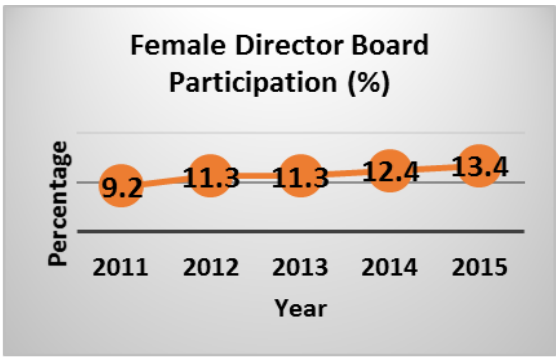

Figure 2 : Trend of female director board participation

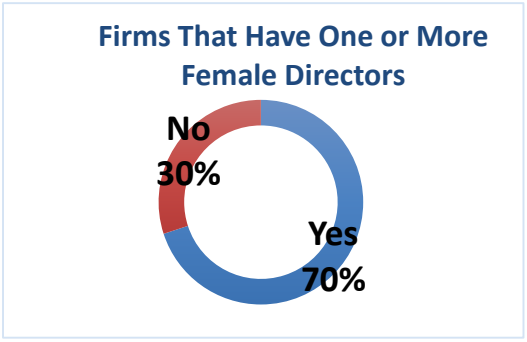

Figure 3: Firms that have one or more female directors

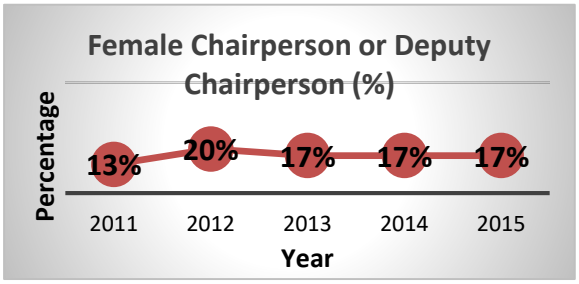

Figure 4: Presence of female chairperson or female deputy chairperson

Source: Developed by author based on survey data

EMPIRICAL ANALYSIS

Regression analysis for test hypotheses

In this study, hypotheses were tested using longitudinal or panel study analysis provided by E-views version 07. To have an effective result from the regression analysis, the assumptions of the Ordinary Least Squares were tested.

Pooled OLS Method:

The results of the Pooled OLS method that carried out in order to verify the relationship between board diversity and financial performance is shown in Table 01 below. The results of the analysis reveal that ROA and Proportion of female director board participation had a significant positive relationship at the 5% significance level as suggested by previous studies (Wellalage & Locke 2012; Bjarnadottir 2013; Prihatiningtias 2012). It means when increased the women participation to the director board it would result to increase the return on assets of the firms. The board size also an important variable of the study and it

shows significantly negative effect with the return on asset. In terms of board size, agency theory argued that small boards allow for effective controlling and monitoring as well as reducing the domination of the CEOs. (Al-Shammari & Al-Saidi 2014).

The categorical variable; the presence of female chairperson or female deputy chairperson (FM_CP) affect the firm's financial performances also reflected a favorable result for the board gender diversity. According to the estimated model the significant positive impact can be identified in the existence of female chairperson or deputy chairperson.

Table 01: Regression Output - Pooled OLS method

Dependent Variable: ROA

Method: Panel Least Squares

Sample: 2011 2015

Periods included: 5

Cross-sections included: 30

Total panel (balanced) observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.910047	4.535095	1.303181	0.1946
PROPORTION	0.091153	0.032773	2.781377	0.0061
LOG_SIZE	-10.45052	1.545266	-6.762926	0.0000
LOG_TOBQ	4.658627	0.877545	5.308707	0.0000
LOG_TA	-0.367803	0.172666	-2.130137	0.0349
LOG_MPS	0.583487	0.322989	1.806521	0.0729
FM_CP=0	1.695269	0.850862	1.992415	0.0482
R-squared	0.350992			
Adjusted R-squared	0.323760			
S.E. of regression	3.185810			
F-statistic	12.88935			
Prob (F-statistic)	0.000000			
Durbin-Watson stat	0.840201			

Source: Developed by author based on survey data

The estimated model was;

$$ROA = 5.910 + 0.091 * PROPORTION – 10.451 * LOG\_SIZE + 4.658 * LOG\_TOBQ – 0.368 * LOG\_TA + 0.583 * LOG\_MPS + 1.695 * (FM\_CP=0)$$

The tested hypotheses for the study were;

H_0: Gender diversity in the boardroom has no relationship with firm financial performance (as measured by Return on Assets).

H_1: Gender diversity in the boardroom has a relationship with firm financial performance (as measured by Return on Assets).

Based on the results, H_o was rejected under pooled OLS method. This means that the more gender diversity in the boardroom has a positive relationship with firm's financial performances with reference to profitability of the company in the Sri Lankan context. However, the larger the size of a board, the lower the return on asset ratio.

The adjusted R-squared of the regression was 0.35, which specifies that the equation is reliable (Schwizer et al. 2012). This means regression line was 35% fitted to the sample data set. The model was significant as a whole since the p-value of the F statistics was less than 5% level of significance.

But the problem of this pooled OLS method was it does not distinguish between the various firms that the study has and it was assumed that all the companies were same, but normally it does not happen. Therefore, the researcher had to conduct Hausman test in order to remove this problem by utilizing fixed or random effect model to the study.

Hausman Test

The study employed Hausman test to select the suitable model to be applied in the study. The hypothesis for the Hausman test was;

H_o = Random effect model is appropriate

H_1 = Fixed effect model is appropriate

The results of the Hausman test shown in table 02 concluded that the appropriate model for this study was fixed effects model since the probability value (0.0008) less than the critical

value at the 5% of significance level. That means it had reject the null hypothesis and thus study should be used fixed effect model for further estimations.

Table 02: Hausman test Statistics

Correlated Random Effects - Hausman Test Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	23.085352	6.0000	0.0008

Source: Developed by author based on survey data

Fixed Effect (LSDV) Method:

Fixed Effects Model or LSDV (Least Square Dummy Variables) Model allows for heterogeneity or individuality among firms by allowing having its own intercept value. The results of the model were shown in Table 03 below. Contrary to the pooled OLS method, the results from the fixed effect model have been different for some variables such as proportion of female presence in director board and total board size. Under fixed effect model it cannot be rejected the null hypothesis since the p-value (0.5906) of PROPORTION was greater than the critical value with 5% significance level. This means gender diversity of the board room does not significantly affect to the financial performance in Sri Lankan publicly listed firms. As well as total board size also does not significantly affect to the firm's financial performances since p-value (0.5615) greater than the critical value. All other control variables show same result as the pooled OLS method.

However, the categorical variable; the presence of female chairperson or female deputy chairperson (FM_CP) affect the firm's financial performances provided a dissimilar result than of the pooled OLS method. According to the estimated fixed effect model the significant negative impact can be identified in the existence of female chairperson or deputy chairperson.

Table 03: Regression Output - Fixed Effects Method

Dependent Variable: ROA

Method: Panel Least Squares

Sample: 2011 2015

Periods included: 5

Cross-sections included: 30

Total panel (balanced) observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.60909	12.11314	1.701383	0.0916
PROPOTION	0.030972	0.057409	0.539500	0.5906
LOG_SIZE	-1.359677	2.334725	-0.582371	0.5615
LOG_TOBQ	4.618488	0.988208	4.673601	0.0000
LOG_TA	-2.650712	0.873333	-3.035168	0.0030
LOG_MPS	-0.987177	0.727596	-1.356765	0.1775
FM_CP=0	-2.669219	1.037577	-2.57255	0.0114

Source: Developed by author based on survey data

Cross-section fixed (dummy variables)

R-squared	0.773989
Adjusted R-squared	0.704599
S.E. of regression	2.105598
F-statistic	11.15426
Prob(F-statistic)	0.000000
Durbin-Watson stat	1.881449

Source: Developed by author based on survey data

The estimated model under fixed effect method was;

ROA = 20.609 + 0.031 * PROPOTION – 1.359 * LOG_SIZE + 4.618 * LOG_TOBQ – 2.650 * LOG_TA – 0.987 * LOG_MPS – 2.669 * (FM_CP=0)

The adjusted R-squared of the regression model under fixed effects method was 0.77,

which specifies that the equation is reliable than the pooled OLS model. This means regression line was 77% fitted to the sample data set. The model was significant as a whole since the p-value of the F statistics was less than 5% level of significance. And also the model was free from the autocorrelation since the Durbin-Watson statistic was approximately close to 2(Gujarati & Porter 2009a).

CONCLUSION

The main objective of this study was to examine the link between women's participation in director board and its impacts on the financial performance of firms in the Sri Lankan context. A plethora of studies in this nature have been undertaken in the context of developed economies. Hence this study makes contribution to the literature by addressing the nature in a developing economy with reference to the Sri Lankan context.

The findings regarding the link between gender diversity in the board room and firm's financial performances based on the results of panel data analysis reflects favorable sign for women empowerment. That means positive relationship between female presence in the director board and financial performances says that firms should hire more females in order to enhance their profitability. The positive association between gender diversity in the director board and firm financial performance also supports by the agency theory, stewardship theory and resource dependent theory.

Furthermore, the study used categorical variable in order to examine the relationship between presence of female chairperson or deputy chairperson and the firm's financial performances. The results reflected that companies that have female chairperson or deputy chairperson on its board tend to have significantly higher return on assets under pooled OLS method. But the results were inconsistent in fixed effects method.

However, descriptive statistics of the study reveals that there was underrepresentation of females in director boards in the Sri Lankan context. Even though many researches present ambiguous results for the relationship between female presence in the director board and financial performances, more recent studies have reported favorable results towards the women's ability to lead. (Priya & Nimalathasan 2013; Prihatiningtias 2012; Bjarnadottir 2013; Ferreira & Adams 2009; Danga & Nguyen 2014; Ren & Wang 2011). This trend has been concluded that the reason for the underrepresentation of women in top level positions is not because women's lack managerial skills. They may possess greater leadership skills and their leadership style is more suitable in modern day organizations.

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