



Does Gender Representation at Decision Making Levels Matter for Better Financial Performance of Local Licensed Commercial Banks in Sri Lanka?

S. T. D. Sandanayaka¹ and E. A. G. Sumanasiri^{1*}

¹Department of Commerce, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, Sri Lanka.

Authors' contributions

This work was carried out in collaboration between both authors. Author STDS and EAGS equally contributed to design the study, managed the literature, wrote the protocol, collected data, performed the statistical analysis and wrote the first draft of the manuscript. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2021/v21i730400

Editor(s):

(1) Prof. Chun-Chien Kuo, National Taipei University of Business, Taiwan.

Reviewers:

(1) Edwins Edson Otero, University of Namibia, Namibia.

(2) Chinelo Jenevive Obiekwe, Michael Okpara University of Agriculture, Nigeria.

(3) Nana Kwame Nkrumah, Global Academy of Finance and Management, USA.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/68963>

Original Research Article

Received 20 March 2021

Accepted 25 May 2021

Published 31 May 2021

ABSTRACT

Aim: Female representation in top corporate positions has been discussed widely around the world over the last decade, mainly due to the significant gap observed between the number of females with higher educational qualifications and the number of females in employment. Accordingly, this study aims to identify the relationship between the female presence within boardrooms and top management teams of local licensed commercial banks and the financial performance of those banks, which is a timely concern.

Place and Duration of Study: Amana Bank PLC, Commercial Bank of Ceylon PLC, DFCC Bank PLC, Hatton National Bank PLC, National Development Bank PLC, Nations Trust Bank PLC, Pan Asia Banking Corporation PLC, Sampath Bank PLC, Seylan Bank PLC, and Union Bank of Colombo PLC were studied during the time period 2011 to 2019.

Methodology: The time series data analysis method has been used for 10 local licensed commercial banks in Sri Lanka, excluding one bank which was not a PLC. The annual reports of the

*Corresponding author: E-mail: ayoma@sjp.ac.lk;

respective banks were used to gather the secondary data required for the study.

Results: The regression analysis explained that female presence within boardrooms is positive and significant with respect to ROE and positive and insignificant with respect to ROA, whereas females in top management has a positive but insignificant relationship to ROA and a negative but insignificant relationship to ROE. The percentage changes in ROE and ROA explained by the two independent variables are relatively low. Accordingly, no significant relationships between female presence within boardrooms and top management teams and firm financial performance were identified.

Conclusion: The insignificant relationships between the variables indicate that it is not necessary for these banks to employ females in order to prosper in their financial performance. However, the banks could still consider employing females in the boardroom to empower gender equality since such a presence does not have a negative impact on financial performance.

Keywords: Female representation; boardroom; top management team; financial performance; banking sector; CSE.

1. INTRODUCTION

Rapid globalization has led to severe competition among business organizations. In order to outdo competitors, to secure a good market position and to ensure that the interests of their shareholders and other stakeholders are satisfied, organizations have always striven to maximize their profits. Sustaining a strong and healthy financial performance is crucial to achieving higher profits and even to achieving the goals of not for profit organizations. The financial performance of an organization depicts the effectiveness of management in utilizing organizational resources. The financial performance of firms can be analyzed with the use of different techniques.

Women's under representation in the boardroom and in top management teams, in relation to the process of achieving better financial performance levels, has been widely discussed over the last decade. Even though the number of females pursuing higher education worldwide has increased over the years, the gender gap in employment between highly educated males and females tends to remain significant due to the cultural and structural barriers encountered by women. The percentage of women in global workplaces in 2019 stood at only 39% in one of the most recent research studies carried out [1]. However, the inclusion of females in top corporate positions has become a global trend in the recent past, where some countries have moved a step beyond by making it a law.

In the Sri Lankan context, only around 8.5% female board director representation was identified in companies listed on the CSE [2]. Among these, the highest percentage of females

in top corporate positions in Sri Lanka is seen in the banking and finance sector, which accounts for 27.3% female representation [3].

Although many research studies have been carried out on this topic in different parts of the world, a dearth of studies was found in the Sri Lanka context. Also, the findings at global level are not directly generalizable to the Sri Lankan context due to the dissimilarities observed in the cultural, societal and other structural viewpoints on females working in top corporate positions. Moreover, the findings of the relevant previous literature on this research area provides mixed results, namely, positive relationships [4,5], negative relationships [6,7] as well as no relationships [8,9] between the variables.

1.1 The Research Gap

The situation in Sri Lanka is not very different to the current global situation. Even though the number of females engaged in higher education at the undergraduate level is high and at postgraduate levels almost equal to that of males, female participation in the workforce tends to be much lower, especially at the top corporate level.

In the year 2015, 68% of university graduates were females and the male – female ratio among undergraduates was recorded as 40:60 for the same year. However, the unemployment rates tend to be higher among females (8.5%), whereas only 3.4% men were unemployed by 2016.

Accordingly, to minimize this gap between the number of educated women and women holding top corporate positions, it is necessary and timely

to identify whether there is a relationship between firm financial performance and gender diversity.

The limited number of research studies carried out on and the inadequate consideration of this matter in Sri Lanka was a major reason to carry out this research study. Accordingly, the research problem of this study will focus on identifying whether there is a relationship between the financial performance of firms and their practice of including females in corporate boards and top management teams.

1.2 Significance of the Study

Though there are many studies carried out on the relationship between gender diversity and firm financial performance around the world, only a limited number of studies have been conducted on this topic in the Sri Lankan context, especially in the context of local licensed commercial banks in Sri Lanka. Accordingly, the contributions from this study could be used by banking and finance sector companies to decide whether their board compositions and top management teams should be further empowered with more female representation or not in order to enhance financial performance. The findings could be generalized, to a certain extent at least, to companies in other sectors as well to obtain evidence on whether it is beneficial to have gender diversified boards and top management teams to ensure better financial performance. Moreover, most studies conducted worldwide and in Sri Lanka have concentrated on gender diversity within boardrooms, whereas only a very limited number of studies have been carried out on gender diversity in top management. It is expected that the results of this study will support organizations and the government in their policy-level attempts to encourage female participation in corporate decision-making.

1.3 Research Objectives

The general objective of this study is to examine the relationship between gender diversity at corporate decision-making levels and firm financial performance in local licensed commercial banks in Sri Lanka.

This study focuses on the following specific objectives.

1. To identify the extent to which gender diversity within the boardroom affects the

financial performance of local licensed commercial banks in Sri Lanka.

2. To identify the extent to which gender diversity within top management teams affects the financial performance of local licensed commercial banks in Sri Lanka.

1.4 Literature Review

1.4.1 Dependent variable-financial performance

Financial performance reflects the effectiveness of the organization in terms of its resource usage when deriving maximum benefits and profitability for its shareholders during a specific period of time. This will facilitate shareholders and stakeholders of a company to obtain accurate information needed for decision-making. These measurements will also guide users in comparing performances among companies as well. Though there are many measures of financial performance, financial ratios are the most widely used measurement [10].

This study has utilized Return on Assets (ROA) and Return on Equity (ROE) in measuring financial performance to determine the relationship between gender diversity and firm financial performance, as was used by most previous studies.

1.4.2 Return on assets

The ROA has been used as an accounting based measurement of firm financial performance in terms of profitability. ROA has been used in most previous studies which have focused on the relationship between females employed at the decision making level and firm financial performance [5,7,11-14].

ROA measures how effectively and efficiently the asset inputs of the organization have been used to generate returns for shareholders [12,14,15]. A high ROA rate indicates that the management of the company has been capable of generating a higher return on less investment, whereas a falling ROA signals that the company is in a trouble. ROA expresses the association between the net income of an organization and the assets owned by that firm, and is formulated below for the purpose of this study, based on the calculations used by previous scholars.

$$ROA = \frac{\text{Net profit before interest and taxation}}{\text{Total Assets}}$$

1.4.3 Return on equity

Next to ROA, ROE has been the accounting-based measure in the evaluation of financial performance most widely used by many scholars [16,17,18]. This measures the effectiveness of the organization in making profits from the investments made by its shareholders [19].

ROE = Net Profit / Shareholders' Equity

Past studies identify differences in market-based performance items such as Tobin's Q and accounting-based measurement items such as ROA and ROE. Accordingly, ROA and ROE are items that are based on events that have already happened, and as such, they provide an explanation of past performances, whereas Tobin's Q provides insights on expected future performance [20,21,22], making Tobin's Q a very popular measurement item in many studies. Moreover, Tobin's Q is not subjected to distortions that could occur in accounting-based measurements due to accounting conventions and tax laws [23].

1.4.4 Independent variable-female representation within boardrooms

The board of directors of an organization are supposed to perform the major functions of monitoring managers' activities, monitoring the organization's level of compliance with relevant laws, building up connections with the external environment [11], and contributing their knowledge towards building the corporate strategy of the organization [24]. It was also expressed in previous studies that the above-mentioned functions are affected by board composition [11].

In the analysis of gender diversity implementation worldwide, several approaches were identified, namely, the enabling approach, the voluntary approach and quotas [25,26].

In the application of the enabling approach, which is also referred to as the comply or explain model, companies are required by regulation to include females within their boardrooms or to explain why they do not. Under the voluntary approach, companies are given the freedom to decide whether to appoint females to their boards or not [25]. The quota method, which refers to the introduction of legislature to ensure that a given level of females are appointed to company boards [25,26], is an effort taken to

solve the ethical problem of the under-representation of women, despite their being as competent as men [22].

Many developed countries have focused much attention on these policies for several years. Norway, being a pioneer in the implementation of gender quotas, passed a law in 2003 requiring companies to have at least 40% females in their boardrooms [5]. In 2011, legislation was passed by the French government requiring 40% inclusion of women in boards in French listed companies by 2017 [15]. Similarly, in 2011, the Italian parliament passed a law that one third of boards in state owned businesses should comprise females by 2015, which led to a considerable increase in the proportion of women in boardrooms from 7.4% in 2011 to 22.7% in 2014 and in 2015 Spain enacted a law to ensure that 30% of directors in Spanish listed firms are women by 2020 [22]. Even though the number of female directors in Spain rose over the years, it only reached 23.1% by the year 2019, which is still far from the recommended 30% to be achieved by 2020 [27]. However, some scholars [22,28,29] have argued that such forced compliance under gender quotas might lead to the appointment of less competent females solely for the purpose of adhering to government regulations, and that eventually, shareholders are likely to suffer if such women turn out not to be the best candidates.

Previous scholars have presented both positive and negative findings with regard to the manner in which female presence within boards will affect the financial performance of organizations.

Many scholars have argued in favor of female representation within boards due to the variety of unique skills, attitudes, competencies and capabilities brought by females to these boards. Monitoring is one of the five major pillars which leads to proper management and to better financial management. To this end, females are supposed to enhance monitoring activities within boards more than do males, and are seen to express preference for participating in monitoring committees [4,7,30]. Such behavior has helped to reduce agency problems [31] since it ensures that shareholder value is protected through the prevention of the misuse of funds.

Women are generally more risk averse than men [32], are more serious and tend to bring up matters that would not be questioned by male directors [4], ensuring that women's involvement

in boards provides the organization a safety net beyond that which male directors provide, against financial losses.

These different thinking patterns possessed by women when compared to men [7] have helped to bring new ideas to companies and have facilitated innovation and enhanced creativity [21,33]. This adds new color to organizations and thereby increases their market share, since successful innovations could easily attract a huge customer base [34].

Females, for the most part, tend to maintain better relationships with others than do men and tend to be more supportive by focusing on others' needs [35]. Thus, when the requirements of every stakeholder is ensured without pursuing the needs of only one or a few stakeholders, such positive relationships will contribute towards the better survival of the organization [18]. Such diversity will also lead to a better understanding of markets to enhance organizational opportunities to penetrate these markets [21], since customers are better understood by females during decision making at corporate levels [9,31]. Capturing markets with a good understanding of customers and the environment is extremely important for an organization under the current, highly dynamic business environment, and this will lead to new cash inflows and an assured, sustainable customer base, probably generating healthy financial statistics. Similarly, the stability of stock prices, which is a good indicator of the financial stability of organizations, tends to be lower in boards with a lower female presence, indicating the importance of women on boards for financial stability [7].

However, in contrast to the above-mentioned favorable aspects, some scholars have revealed the ways in which female presence within boards could negatively affect the performance of firms.

As per a previous scholar [7], when an organizational board that already maintains sufficient monitoring procedures includes a considerable number of female directors, there is a possibility that the entity could be subject to over-monitoring. Similarly, it was recognized that female board members take time to make decisions [11,36] and the board being more diversified will cause disagreements within the entity, while adversely affecting collectiveness. Moreover, one researcher [32] pointed out that

frequent resignations and higher absenteeism among females has made firms' costs escalate.

With regard to approaches used to implement gender diversity, it was found that [25] only a voluntary approach to include women will create positive impacts on firm financial performance, whereas the enabling approach will have a negative effect on financial performance. Accordingly, this study suggests that females be introduced to boards gradually rather than hastily to avoid board compositions that will prevent organizations from achieving their potential.

A study carried out on 151 German listed companies over the period 2000-2005 indicated that gender diversity will impact positively on financial performance only when there is a critical mass, which refers to the inclusion of a certain critical number of females within the board which will make a real impact on board decisions [37]. Based on the U-shaped relationship identified in that study, it was revealed that firm financial performance tends to be negative when there are less than 30% females on the board and that this financial performance will gradually improve when the number of female board members are increased. In an analysis of 99 Dutch companies, a similar viewpoint was advanced, that inclusion of at least three females within the boardroom will help the board to perform better [18]. Similarly, studies performed on 317 Norwegian companies [38] and on firms in several countries in Europe [39] arrived at the same conclusion with regard to the critical mass theory of females and firm financial performance. The above ideas are further supported [40] through the conclusion that the impact created on financial performance will be strong when there are three or more women within a board, unless the female presence is mere window dressing and a surface representation of gender diversity and the women have no opportunities to raise their voices.

The relationships identified between female representation within boards and financial performance tends to be mixed and no firm conclusion has been reached in previous studies conducted in different countries around the world.

In the context of developed nations, a negative relationship was identified between board gender diversity and Tobin's Q, whereas a positive relationship was identified with return on assets in the study conducted in France [41]. The study

carried out on 262 listed companies in Italy [42] revealed no relationship between financial performance and female presence on boards. Even though such a relationship was not identified, the above scholars concluded that female presence on boards will lead to enhanced corporate governance due to improvements in monitoring activities by females, which minimize the chances of organizations being exposed to risk.

With reference to the USA, previous scholars [11] identified that as far as ROA is concerned, female board representation is positively related to firm financial performance but negatively related to Tobin's Q. Accordingly, the above scholars concluded that there was no association between the aforesaid two variables. However, a positive relationship between the variables was found in one study which was based on the ROA ratio measure [13]. Similar results were obtained in a study carried out on 112 US companies [43].

An analysis of 68 Spanish firms [44] and a study conducted on European firms [30] both revealed a positive relationship between female representation within boards and financial performance. In contrast, a study conducted in Denmark and the Netherlands determined that that there was no relation between the variables concerned [45].

In the context of developing countries, a study performed on Indonesian listed firms identified negative relationships with both accounting-based and market-based measurement items [6], whereas the study conducted on Kuwaiti listed firms for the period of 2009-2011 concluded that female representation on boards does not improve firm financial performance in Kuwait [46]. A study performed in Turkey, a country which also falls into the category of emerging economies, covered Istanbul listed companies during 2008-2012 and used the measurement items of return on assets, return on sales and return on equity in arriving at the conclusion that Turkish companies show better financial performances when there is female inclusion within boardrooms [5].

Of the very limited number of studies carried out on this topic in Sri Lanka, a study carried out on 30 Sri Lankan listed firms in the period of 2011-2015 concluded that it is favorable for firms to empower female representation and thereby enhance financial performance due to the positive relationship observed between female

board representation and firm financial performance [14].

Extant research has mainly used the proportion of female directors in boardrooms [14,15,22] when studying the topic. The proportion of female directors is obtained by dividing the number of female board members by the total number of board members.

Accordingly, the following hypotheses are advanced.

H1: There is a positive relationship between female participation in boards and ROA.

H2: There is a positive relationship between female participation in boards and ROE.

1.4.5 Independent variable-female participation in top management

Top management of an organization consists of a smaller group of executives who perform at the peak level of the organization [47], while being highly and directly influential in the process of designing the strategies of the organization [48].

The performance levels of organizations are directly affected by the composition of the top management team [49], while the composition in terms of gender of top management is considered to be a highly important aspect among the different features that characterize top management [50].

The inclusion of females in top management can be beneficial to the organizations in several ways. Females working in top management team are expected to bring creative and innovative ideas to the organization and to effectively engage in problem solving [51]. Moreover, it is believed that women in top management are better capable of understanding female customers' preferences which vary from that of male customers [52].

Previous studies have identified that when gender diversity within top management teams is high, the level of risk encountered by the organizations will be low and will lead to better financial performance [53]. Moreover, it was observed that female executives are paid less when compared to males, and this disparity in compensation will dilute when gender diversity in top management is improved.

At present, society exerts some pressure on organizations to include more females within their top management and boards [54]. Accordingly, the inclusion of females in top management teams will popularize the organization among external stakeholders and enhance the opportunities available to the organization to obtain more support from these stakeholders. Furthermore, females in top management will provide a signal to employees that there is a female friendly environment in the organization [51].

However, some scholars have revealed that excessive levels of gender diversity within top management might gradually cause dissatisfaction among employees and thereby reduce performance levels [55,56,57].

In Europe, an analysis was performed on 2500 Danish companies during the period 1993 to 2001, and it was found that firm performance is positively impacted by female presence within the top management of a firm and that that positive relationship is highly affected by the qualifications possessed by such females [58].

In the context of developing economies, in a study carried out on 54 public organizations in Colombia in the period 2008 to 2015 [17], it was observed that privately-owned Chinese companies [54] and Colombian firms provide evidence for a positive relationship between firm financial performance and female representation in top management.

Previous scholars have mainly used the proportion of female top management team members [12,17,54] to measure female representation within top management. The proportion of females on top management teams will be obtained by dividing the number of females in the top management team by the total number of team members.

Accordingly, the following hypotheses are advanced.

H3: There is a positive relationship between female participation in top management and ROA.

H4: There is a positive relationship between female participation in top management and ROE.

1.5 Conceptual Framework

The conceptual framework was developed based on the literature review to identify the relationship between gender diversity at the decision making level of an organization and the financial performance of local licensed commercial banks in Sri Lanka. This framework is presented in Fig. 1.

Accordingly, the variables of this study will include the independent variables of gender diversity in boardrooms and gender diversity in top management and the dependent variable firm financial performance.

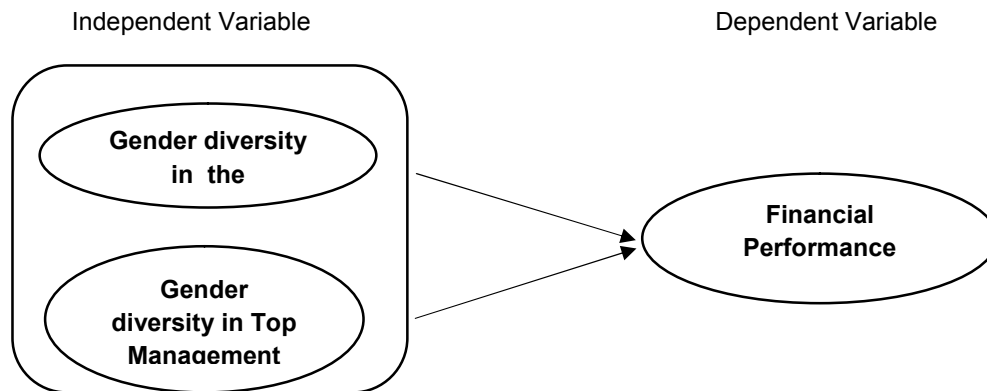


Fig. 1. Conceptual Framework

2. METHODOLOGY

2.1 Study Design

This study uses a deductive research approach to test the hypotheses developed to identify the relationship between gender diversity at the decision-making levels of an organization and the financial performance of local licensed commercial banks.

The banking sector was specifically selected since the highest number of female board representation was recorded in the banking sector of Sri Lanka. The reason for limiting the study to local licensed commercial banks, excluding the foreign banks, was due to similarities in the policies, procedures and culture of such banks. Among the population of 11 local licensed commercial banks in Sri Lanka, 10 banks were included in the sample of the study. Cargills Bank was excluded from the sample due to the fact that it was not a publicly listed company in the year 2019.

2.2 Data Collection

The data relevant for the study were collected through secondary sources. Accordingly, all the variables mentioned within the study were measured through the data gathered from the annual reports of the banks that make up the sample for the time period 2011 to 2019.

2.3 Data Analysis

The data were analyzed using the SPSS statistical package. The frequency and descriptive analysis which include the mean, standard deviation, minimum and maximum values will be used to express the behavior of Return on Assets (ROA), Return on Equity(ROE), Proportion of female directors in the Boardroom (PB) and the Proportion of females in Top Management (PT) for the period 2011 to 2019. Correlation analysis was performed to test the relationship between ROA, ROE and female representation on company boards and top management teams. Then, panel data regression analysis was used to test the impact of female representation on firm financial performance.

3. RESULTS AND DISCUSSION

3.1 Descriptive Statistics

Appendix 1 shows the descriptive statistics, the mean, standard deviation, and the minimum and maximum values of the measurement items for the period 2011 to 2019.

When the whole sample of banks was considered, the mean proportion of female directors on a Board (PB) is 16.73 and the standard deviation of 10.7% expresses that the above mean can deviate to both directions by that amount. The mean proportion of females within top management (PT) in banks is 19.7%

and it can deviate by 7.83% in either positive or negative directions. The mean ROA of the 9 banks is 2.74% with a standard deviation of 0.77%, while the mean ROE is 12.94%, and the value for any bank can deviate from the mean by 7.12%.

3.2 Correlation Analysis

The correlation of a study will lie between -1 to +1, indicating a perfect positive correlation at +1 and a perfect negative correlation at -1. A value which is closer to 1 depicts a strong relationship between the variables whereas a value closer to 0 represents a weak correlation between the variables. As shown in Table 1, PB shows a positive relationship with both ROA and ROE whereas PT revealed a positive relationship with ROA and a negative relationship with ROE. None of the correlation coefficients of the corresponding inter-construct correlations were above 0.85, indicating that there is no multicollinearity issue in the model.

3.3 Panel Data Regression Analysis

3.3.1 Regression analysis -ROA

A panel data regression analysis was performed to identify the impact of gender diversity in the boardroom and in top management teams on return on assets. Table 2 indicates that only 8.7% of variation in return on assets is caused by female representation within boardrooms and females in top management. The remaining 91.3% of variations in ROA is caused by factors other than the above two independent variables.

As per Table 2, since the p values are greater than 0.05, the B value is insignificant. Accordingly, the above panel data regression depicts an insignificant positive relationship between the independent variables female representation in boardrooms and females in top management positions and ROA of the banks under consideration in the study. Between the two independent variables, the relationship between female presence in top management and ROA showed a slightly more positive value than that between female representation in boardrooms and ROA.

The independent variables were checked for multicollinearity using tolerance and its reciprocal, the Variance Inflation Factor (VIF). Since the VIF of all the independent variables are below 10 and the tolerance is more than 0.1, as per Table 2, it can be concluded that there are no

Table 1. Correlation analysis

			PB	PT	ROA	ROE
Spearman's rho	PB	Correlation Coefficient	1.000	.407**	.340**	.310**
		Sig. (2-tailed)	.	.000	.001	.003
	PT	Correlation Coefficient	.407**	1.000	.064	-.076
		Sig. (2-tailed)	.000	.	.548	.477
	ROA	Correlation Coefficient	.340**	.064	1.000	.677**
		Sig. (2-tailed)	.001	.548	.	.000
	ROE	Correlation Coefficient	.310**	-.076	.677**	1.000
		Sig. (2-tailed)	.003	.477	.000	.

** . Correlation is significant at the 0.01 level (2-tailed).

multicollinearity issues among the independent variables of the regression model, as they are not significantly correlated with one another.

3.3.2 Regression analysis – ROE

The impact of female representation in boardrooms and females in top management positions on ROE is identified through the panel data regression analysis carried out. The R square value of Table 5 indicates that 10.6% of the variation in ROE can be explained by the independent variables female representation in boardrooms and females in top management positions. However, 89.4% of the variation in ROE is explained by variables other than the above independent variables.

As per Table 7, since the p value of 0.002 of female representation within boards (PB) is lower than 0.005, its B value is of significance, whereas the B value of females in top management (PT) is insignificant since its p value is higher than 0.005. Accordingly, the above panel data regression model depicts a moderate positive relationship of 0.229 between female representation within boardrooms and ROE. A weak, negative relationship of -0.062 is identified between females in top management positions and ROE. The independent variables were checked for multicollinearity, and no multicollinearity issues were identified in the two independent variables of the regression model since their VIF values are below 10 and the tolerance is 0.1, as per Table 7.

Table 2. Model Summary - ROA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.295 ^a	.087	.066	.0074069

a. Predictors: (Constant), PT, PB

Table 3. ANOVA – ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.000	2	.000	4.149	.019 ^b
	Residual	.005	87	.000		
	Total	.005	89			

a. Dependent Variable: ROA

b. Predictors: (Constant), PT, PB

Table 4. Coefficient – ROA

Model		Unstandardized coefficients		Standardized Coefficients	t	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.006	.002		2.966	.004		
	PB	.013	.008	.189	1.696	.093	.845	1.183
	PT	.016	.011	.164	1.474	.144	.845	1.183

a. Dependent Variable: ROA

Table 5. Model summary- ROE

Model	R	R Square	Adjusted R square	Std. Error of the estimate
1	.326 ^a	.106	.085	.0680570

a. Predictors: (Constant), PT, PB

b.

Table 6. ANOVA – ROE

Model		Sum of Squares	df	Mean square	F	Sig.
1	Regression	.048	2	.024	5.159	.008 ^b
	Residual	.403	87	.005		
	Total	.451	89			

a. Dependent Variable: ROE

b. Predictors: (Constant), PT, PB

Table 7. Coefficient - ROE

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.103	.020		5.159	.000		
	PB	.229	.073	.346	3.141	.002	.845	1.183
	PT	-.062	.100	-.068	-.616	.539	.845	1.183

a. Dependent Variable: ROE

Table 8. Hypothesis testing results

Hypothesis	Result
H ₁ : There is a positive relationship between the female participation on board and ROA.	Accepted
H ₂ : There is a positive relationship between the female participation on board and ROE.	Accepted
H ₃ : There is a positive relationship between female participation in top management and ROA.	Accepted
H ₄ : There is a positive relationship between female participation in top management and ROE.	Rejected

3.4 Discussion

The general objective of the study, as mentioned above, is to examine the relationship between gender diversity at corporate decision-making levels and firm financial performance in local licensed commercial banks in Sri Lanka. Based on the above general objective, the following specific objectives were addressed through the study.

Objective 1: To identify the extent to which gender diversity within the boardroom affects the financial performance of local licensed commercial banks in Sri Lanka.

3.4.1 The relationship between boardroom gender diversity and return on assets

This study found that boardroom gender diversity tends to have an insignificant positive relationship with ROA of local licensed commercial banks in Sri Lanka in the period 2011 to 2019. The study performed during the time frame 2008-2012 on Istanbul listed companies in Turkey also came to the same conclusions as the current study, that those companies' financial performance shows a positive relationship with ROA when there is female inclusion within boardrooms [5]. Corroborating these findings, a positive but insignificant relationship was found between ROA and having a female in the board of Fortune 1,000 firms [59]. Confirming the above findings, the proportion of female directors and ROA were observed to be positively related, though not significant in the study conducted for Istanbul companies during the period 2002 to 2006 [60]. Similar results of a positive but insignificant relationship between the aforesaid two variables were identified in several other studies [11,17,43]. However, contrary to the above findings, several studies [7,12] have identified a negative relationship between female presence within the boardroom and financial performance as measured by ROA.

3.4.2 The relationship between boardroom gender diversity and Return on Equity

This study identifies a positive and significant relationship between the two variables boardroom gender diversity and return on equity. Supporting the above finding, the outcomes of the studies conducted on 54 Colombian public businesses for the period 2008-2015, revealed a positive and significant relationship, similar to

that of the current study, between the two variables [12, 17]. The above result is also consistent with the studies carried out on companies in some developed economies [44] and developing economies [5,13,61].

Objective 2: To identify the extent to which gender diversity in top management teams affects the financial performance of local licensed commercial banks in Sri Lanka.

3.4.3 The relationship between top management gender diversity and Return on Assets

During the analysis of the data, it was identified that the data support an insignificant positive relationship between the two variables mentioned in the above research question. This conclusion is supported by conclusions of studies carried out on Istanbul listed firms for the period 2002 to 2006 [60] and on China's listed firms for the period 1999 to 2011 [31], which also identified a positive but insignificant relationship between top management gender diversity and ROE. A positive relationship between the above two variables was also revealed by several previous scholars [12,17,26,62]. However, these findings were slightly different to those of the current study since the former supported a significant relationship between the variables.

3.4.4 The relationship between top management gender diversity and Return on Equity

This study identified an insignificant negative relationship between top management gender diversity and Return on Equity. The above results were supported by the research conducted on German companies on the stock exchange [37] and by a study on Spanish firms listed on the Madrid stock exchange [63], which concluded that gender diversified teams have a negative impact on ROE. However, there are past studies that did not identify a significant relationship between ROE and top management team gender diversity [60], whereas some studies [12,17] provided evidence that the presence of females in top management positively and significantly related to ROE.

4. CONCLUSION AND RECOMMENDATIONS

This study suggests several managerial level contributions which can be implemented at the

organizational level to ensure better financial performance within the organization.

As revealed in this study, since female representation in corporate boards has a positive relationship with both ROE and ROA, the local licensed commercial banks considered in the study and banks in general, should not doubt the impact of board gender diversity (brought about through an appointment of women) on financial performance.

In a situation where the organization is concerned with making top management teams more gender diversified in order to achieve better financial performance, it is advised that they should take into account other facts that could make a better impact on financial performance, since the study identifies a positive relationship between top management female presence and ROA and a negative relationship between the presence of females in top management and ROE, though both are insignificant.

Consequently, even though the study results find that the inclusion of females at decision making levels does not have a significant impact on financial performance, it causes no harm to the entity's financial surface, and therefore, the banks considered in the current study and banks in general should encourage female inclusion at the decision making level. That will ensure that the organization is appraised in a positive manner by both local and global stakeholders since the organization is seen to be taking action to empower females and to minimize gender equality issues which are worldwide concerns. Similarly, such action will assure stakeholders that the organization is taking measures to help the nation achieve sustainable development goals, which would provide additional recognition for the organization.

This study also has implications for the government policy-making process. Several local finance companies have collapsed during the past few years due to abysmal financial performances. Since the collapse of financial institutions could affect the economy of a country severely, the government should take action to ensure strong financial performance. Based on the findings of this study, the government can pass laws or regulations regarding the recruitment of a minimum number of females to the decision making levels of banks which are under the supervision of the Central Bank of Sri Lanka, to ensure financial stability.

The current female unemployment rate and the female labour turnover rate in Sri Lanka are high compared to those of males. That is mainly because the opportunity cost of females engaging in lower paid jobs tends to be higher, especially in a country like Sri Lanka where females play a major role in the family. However, if women are provided opportunities to enter top decision-making positions with good pay, they might consider continuing in employment. Accordingly, the government can design policies to provide relief in terms of taxes, loan interest levels and other facilities for any organization that employs a required number of females at the decision-making level.

In the Sri Lankan context, the number of females employed in the job market is at a lower level when compared to the number of females who have higher educational qualifications, suggesting that the Sri Lankan economy is lacking a considerable number of knowledgeable people in the job market. Since the presence of females in management, especially in the boardroom, is identified to have a positive relationship with the financial performance of the banks concerned, the government could establish policies to ensure that bank recruitments include a considerable number of qualified females at the decision making level of state banks which are purely under government control.

Based on the findings of the study, since the female presence at decision making levels in banks, especially in boardrooms, has a positive impact on financial performance, the government could take steps to ensure that training opportunities and other facilitating programmes are provided within these organizations for females, in order to ensure that women armed with the required skills, competencies and qualities are available to hold such positions and contribute their maximum to the organization.

5. LIMITATIONS AND FUTURE RESEARCH

First, this study considers only the percentage of female directors and women in top management positions when drawing conclusions about gender diversity at decision making levels. Accordingly, further studies should also examine other dimensions of females such as education level, experience in the sector, age and other demographic factors that affect financial performance, in addition to the percentage of

female directors and women in top management positions. Second, this study is performed specifically using local licensed commercial banks in Sri Lanka, and thus, the conclusions are strictly applicable only to the banking industry. Therefore, it would be desirable for future studies to be carried out on another or other significant industries other than the banking industry. Third, only the accounting - based measures of ROA and ROE have been used to measure the dependent variable, financial performance, in the current study. The current authors recommend that future researchers use several other measures of financial performance, including market-based performance measures such as Tobin's Q and share price, in addition to accounting-based measures. This suggestion is made because the same independent variable tends to have both positive and negative relationships with the dependent variable, based on the manner in which financial performance is measured. Future researchers could examine the influence of the independent variables on the dependent variable through introducing new mediating and moderating variables. Fourth, the scope of the research has been limited due to time constraints and the COVID - 19 pandemic. Therefore, future researchers could examine how the existence of females at decision making levels affects other aspects of the organization such as the impact of female presence on better perceptions of women and on motivation among young women to reach their highest potential in their careers. Finally, this study is entirely based on data gathered from annual reports, which limits the opportunity to understand the behavioral patterns of females at decision making levels. Therefore, it is suggested that future studies use different methodologies by collecting primary data through methods such as surveys, interviews and case studies in order to obtain more comprehensive information on the impact of gender diversity on financial performance.

DISCLAIMER

The products used for this research are commonly and predominantly used products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Catalyst. Quick Take: Women in the Workforce- Global. 2020;30:1. Accessed 20 February 2020. Available: <https://www.catalyst.org/research/women-in-the-workforce-global/>
2. De Silva C. Marginal increase in women representation at board level in listed companies: Research. Daily FT. 2019;03:11. Accessed 20 February 2020. Available: <http://www.ft.lk/hr/Marginal-increase-in-women-representation-at-board-level-in-listed-companies--Research/47-674375>
3. International Finance Corporation. 2019. Accessed 20 February 2020. Available: https://www.ifc.org/wps/wcm/connect/382daf0e-82e8-40f7-9f046beaab5a8872/Women_on_Boards_of_Companies_Listed_on_the_Colombo_Stock_Exchange_2nd_edition.pdf.
4. Carter DA, Simkins BJ, Simpson WG. Corporate governance, board diversity, and firm value. *The Financial Review*. 2003;38(1):33–53. DOI: <https://doi.org/10.1111/1540-6288.00034>
5. Kılıç M, Kuzey C. The effect of board gender diversity on firm performance: Evidence from Turkey. *Gender in Management: An International Journal*. 2016;31(7):434–455. <https://doi.org/10.1108/GM-10-2015-0088>
6. Darmadi S. Board diversity and firm performance: The Indonesian evidence. *Corporate Ownership and Control*. 2011;8(2):450–466. <https://doi.org/10.22495/cocv8i2c4p4>
7. Adams R, Ferreira D. Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*. 2009;94(2):291–309.
8. Matsa DA, Miller AR. A Female Style in Corporate Leadership? Evidence from Quotas. *American Economic Journal: Applied Economics*. 2013;5(3):136–169.
9. Miller T, Triana MDC. Demographic Diversity in the Boardroom: Mediators of the Board Diversity–Firm Performance Relationship. *Journal of Management Studies*. 2009;46(5):755–786.

10. DOI:<https://doi.org/10.1111/j.1467-6486.2009.00839.x>
11. Naz F, Ijaz F, Naqvi F. Financial performance of firms: evidence from Pakistan cement industry. 2016;5(1):81–94.
12. Carter DA, D’Souza F, Simkins BJ, Simpson WG. The gender and ethnic diversity of US Boards and Board Committees and Firm Financial Performance. *Corporate Governance: An International Review*. 2010;18(5):396–414.
DOI:<https://doi.org/10.1111/j.1467-8683.2010.00809.x>
13. Moreno-Gómez J, Calleja-Blanco J. The relationship between women’s presence in corporate positions and firm performance: The case of Colombia. *International Journal of Gender and Entrepreneurship*. 2018;10(1):83–100.
DOI:<https://doi.org/10.1108/IJGE-10-2017-0071>
14. Mahadeo J, Soobaroyen T, Oogarah-Hanuman V. Board Composition and Financial Performance:Uncovering the Effects of Diversity in an Emerging Economy. *Journal of Business Ethics*. 2011;105(3):375–388.
DOI:<https://doi.org/10.1007/s10551-011-0973-z>
15. Rupawaththa RGMN. Do women in top management affect firm performances? Analysis of Public Quoted Companies in Sri Lanka. *SSRN Electronic Journal*; 2016
DOI:<https://doi.org/10.2139/ssrn.2908791>
16. Ben SR, Ajina A, Lakhali F. Board gender diversity and Firm Financial Performance in France Empirical Evidence using quantile difference-in-differences and dose-response models. *Cogent Economics & Finance*. 2019;7(1).
DOI:<https://doi.org/10.1080/23322039.2019.1626526>
17. Low DCM, Roberts H, Whiting RH. Board gender diversity and firm performance: Empirical evidence from Hong Kong, South Korea, Malaysia and Singapore. *Pacific-Basin Finance Journal*. 2015;35(Part A):381–401.
DOI:<https://doi.org/10.1016/j.pacfin.2015.02.008>
18. Moreno-Gómez J, Lafuente E, Vaillant Y. Gender diversity in the board, women’s leadership and business performance. *Gender in Management: An International Journal*. 2018;33(2):104–122.
19. Lücknerath-Rovers M. Women on boards and firm performance. *Journal of Management & Governance*. 2013;17(2):491–509.
20. Ellinger AD, Ellinger AE, Yang B, Howton SW. The relationship between the learning organization concept and firms’ financial performance:An empirical assessment. *Human Resource Development Quarterly*. 2002;13(1):5–22.
DOI:<https://doi.org/10.1002/hrdq.1010>
21. Demsetz H, Villalonga B. Ownership structure and corporate performance. *Journal of Corporate Finance*. 2001; 7(3):209–233.
DOI:[https://doi.org/10.1016/S0929-1199\(01\)00020-7](https://doi.org/10.1016/S0929-1199(01)00020-7)
22. Gordini N, Rancati E. Gender diversity in the Italian boardroom and firm financial performance. *Management Research Review*. 2017;40(1):75–94.
DOI:<https://doi.org/10.1108/MRR-02-2016-0039>
23. Martín-Ugedo JF, Mínguez-Vera A, Rossi F. Female directors and firm performance in Italian and Spanish listed firms:Does masculinity matter? *Academia Revista Latinoamericana de Administración*. 2019;32(3):411–436.
DOI:<https://doi.org/10.1108/ARLA-06-2018-0124>
24. Lindenberg EB, Ross SA. Tobin’s q Ratio and Industrial Organization. *The Journal of Business*. 1981;54(1):1–32.
25. Rose C. Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*. 2007;15(2):404–413.
DOI:<https://doi.org/10.1111/j.1467-8683.2007.00570.x>
26. Labelle R, Francoeur C, Lakhali F. To Regulate Or Not To Regulate? Early Evidence on the Means Used Around the World to Promote Gender Diversity in the Boardroom. *Gender, Work & Organization*. 2015;22(4):339–363.
DOI:<https://doi.org/10.1111/gwao.12091>
27. Terjesen S, Aguilera RV, Lorenz R. Legislating a woman’s seat on the board: Institutional factors driving gender quotas for boards of directors. *Journal of Business Ethics*. 2015;128(2):233–251.
DOI:<https://doi.org/10.1007/s10551-014-2083-1>

28. Female board members wanted: Spain is still far from gender parity. Insight IESE. 2020. Accessed 20 February 2020. Available:<https://09deac183ff04ae9922674f381d8168d.pages.ubembed.com/ecaa7a32-58ab-4ca4-8716-ac6faaa2368e/a.html?id=2286&ar=3&idoma=2&closedAt=0>
29. Ahern KR, Dittmar AK. The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*. 2012;127(1):137–197. DOI:<https://doi.org/10.1093/qje/qjr049>
30. Casey C, Skibnes R, Pringle JK. Gender equality and corporate governance: Policy strategies in Norway and New Zealand. *Gender, Work & Organization*. 2011;18(6):613–630. <https://doi.org/10.1111/j.1468-0432.2010.00514.x>
31. Isidro H, Sobral M. The Effects of Women on Corporate Boards on Firm Value, Financial Performance, and Ethical and Social Compliance. *Journal of Business Ethics*. 2015;132(1):1–19.
32. Liu Y, Wei Z, Xie F. Do women directors improve firm performance in China? *Journal of Corporate Finance*. 2014; 28(C):169–184.
33. Cox TH, Blake S. Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Perspectives*. 1991;5(3):45–56. DOI:<https://doi.org/10.5465/ame.1991.4274465>
34. Galia, F, Zenou E. Board composition and forms of innovation: Does diversity make a difference? *European J. of International Management*. 2012;6(6):630. DOI:<https://doi.org/10.1504/EJIM.2012.050425>
35. Julizaerma MK, Sori, ZM. Gender Diversity in the Boardroom and Firm Performance of Malaysian Public Listed Companies. *Procedia - Social and Behavioral Sciences*. 2012;65:1077–1085. DOI:<https://doi.org/10.1016/j.sbspro.2012.11.374>
36. Vinkenburg CJ, van Engen ML, Eagly AH, Johannesen-Schmidt MC. An exploration of stereotypical beliefs about leadership styles: Is transformational leadership a route to women's promotion? *The Leadership Quarterly*. 2011;22(1):10–21. DOI:<https://doi.org/10.1016/j.leaqua.2010.12.003>
37. Hambrick DC, Cho TS, Chen MJ. The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly*. 1996;41(4):659–684. <https://doi.org/10.2307/2393871>
38. Joecks J, Pull K, Vetter K. Gender diversity in the boardroom and firm performance: What exactly constitutes a "Critical Mass?" *Journal of Business Ethics*. 2013;118(1):61–72. DOI:<https://doi.org/10.1007/s10551-012-1553-6>
39. Torchia M, Calabrò A, Huse M. Women directors on corporate Boards: From Tokenism to Critical Mass. *Journal of Business Ethics*. 2012;102(2):299–317. DOI:<https://doi.org/10.1007/s10551-011-0815-z>
40. Arena C, Cirillo A, Mussolino D, Pulcinelli I, Saggese S, Sarto F. Women on board: Evidence from a masculine industry. *Corporate Governance. The International Journal of Business in Society*. 2015; 15(3):339–356. DOI:<https://doi.org/10.1108/CG-02-2014-0015>
41. Schwartz-Ziv M. Gender and board activeness: The Role of a Critical Mass. *Journal of Financial and Quantitative Analysis*. 2017;52(2):1–30. DOI:<https://doi.org/10.1017/S002210901700059>
42. Dang R, Nguyen DK. Does Board Gender Diversity Make a Difference? New Evidence from Quantile Regression Analysis. *Management International*. 2018; 20(2):95–106. <https://doi.org/10.7202/1046565ar>
43. Bianco M, Ciavarella A, Signoretti R. Women on corporate boards in Italy: The role of family connections. *Corporate Governance: An International Review*. 2015;23(2):129–144. <https://doi.org/10.1111/corg.12097>
44. Erhardt NL, Werbel, JD, Shrader CB. Board of director diversity and firm financial performance. *Corporate Governance: An International Review*. 2003; 11(2):102–111. DOI:<https://doi.org/10.1111/1467-8683.00011>
45. Campbell K, Mínguez-Vera A. Gender Diversity in the Boardroom and Firm Financial Performance. *Journal of Business Ethics*. 2008;83(3):435–451.

- DOI:<https://doi.org/10.1007/s10551-007-9630-y>
46. Marinova J, Plantenga J, Remery C. Gender diversity and firm performance: Evidence from Dutch and Danish boardrooms. *The International Journal of Human Resource Management*. 2016;27(15):1777–1790. DOI:<https://doi.org/10.1080/09585192.2015.1079229>
 47. Al-shammari B, Al-saidi M. Kuwaiti Women and Firm Performance. *International Journal of Business and Management*. 2014;9(8):51–60.
 48. Finkelstein S, Hambrick DC. Donaldson Reviews Finkelstein and Hambrick review: Strategic leadership: Top executives and their effects on organizations. 2nd ed. West Publishing Company; 1996.
 49. Nielsen S. Top management team internationalization and firm performance. *Management International Review*. 2010; 50(2):185–206. <https://doi.org/10.1007/s11575-010-0029-0>
 50. Waldman D, Javidan M, Varella P. Charismatic leadership at the strategic level: A new application of upper echelons theory. *The Leadership Quarterly*. 2004; 15(3):355–380. DOI:<https://doi.org/10.1016/j.leaqua.2004.02.013>
 51. Nishii LH, Gotte A, Raver JL. Upper echelon theory revisited: The relationship between upper echelon diversity, the adoption of diversity practices, and Organizational Performance. 2007;1–16.
 52. Hillman AJ, Shropshire C, Cannella AA. Organizational predictors of women on corporate boards. *Academy of Management Journal*. 2007;50(4):941–952. DOI:<https://doi.org/10.5465/amj.2007.26279222>
 53. Mensi-Klarbach H. Gender in top management research: Towards a comprehensive research framework. *Management Research Review*. 2014; 37(6):538–552. DOI:<https://doi.org/10.1108/MRR-03-2013-0066>
 54. Perryman AA, Fernando GD, Tripathy A. Do gender differences persist? An examination of gender diversity on firm performance, risk, and executive compensation. *Journal of Business Research*. 2016;69(2):579–586.
 55. Ren T, Wang Z. Female participation in TMT and firm performance: Evidence from Chinese private enterprises. *Nankai Business Review International*. 2011; 2(2):140–157. DOI:<https://doi.org/10.1108/20408741111139918>
 56. Homberg F, Bui HTM. Top Management Team Diversity: A Systematic Review. *Group and Organization Management*. 2013;38(4):455–479. DOI:<https://doi.org/10.1177/1059601113493925>
 57. Tsui AS, Egan TD, O'Reilly CA. Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*. 1992;37(4):549–579. DOI:<https://doi.org/10.2307/2393472>
 58. Wiersema MF, Bantel KA. Top management team demography and corporate strategic change. *Academy of Management Journal*. 1992;35(1):91–121. DOI:<https://doi.org/10.5465/256474>
 59. Smith N, Smith V, Verner M. Do women in top management affect firm performance? A panel study of 2,500 Danish firms. *International Journal of Productivity and Performance Management*. 2006; 55(7):569–593. DOI:<https://doi.org/10.1108/17410400610702160>
 60. Farrell KA, Hersch PL. Additions to corporate boards: The effect of gender. *Journal of Corporate Finance*. 2005;11(1–2):85–106. DOI:<https://doi.org/10.1016/j.jcorpfin.2003.12.001>
 61. Solakoglu MN, Demir N. The role of firm characteristics on the relationship between gender diversity and firm performance. *Management Decision*. 2016;54(6):1407–1419. DOI:<https://doi.org/10.1108/MD-02-2015-0075>
 62. Ararat M, Aksu M, Tansel CA. How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms: Board Diversity in Emerging Markets. *Corporate Governance: An International Review*. 2015;23(2):83–103. DOI:<https://doi.org/10.1111/corg.12103>
 63. Dwyer S, Richard OC, Chadwick K. Gender diversity in management and firm performance: The influence of growth orientation and organizational culture.

- Journal of Business Research. 2003; 56(12):1009–1019.
DOI:[https://doi.org/10.1016/S0148-2963\(01\)00329-0](https://doi.org/10.1016/S0148-2963(01)00329-0)
64. Gallego-Álvarez I, García-Sánchez IM, Rodríguez-Dominguez L. The influence of gender diversity on corporate performance: Revista de Contabilidad - Spanish Accounting Review. 2010; 13(1):53–88.
DOI:[https://doi.org/10.1016/S1138-4891\(10\)70012-1](https://doi.org/10.1016/S1138-4891(10)70012-1)

APPENDIX 1

Table A1. Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
PB	.0000	.4167	.167342	.1076672
PT	.0294	.3800	.197036	.0782585
ROA	-.0187	.0274	.011882	.0076645
ROE	-.0540	.2681	.129421	.0711666

© 2021 Sandanayaka and Sumanasiri; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://www.sdiarticle4.com/review-history/68963>