

IMPACT OF BOARD DIVERSITY ON FIRM PERFORMANCE: EVIDENCE FROM SRI LANKA

HH Dedunu^{1*}, PANS Anuradha²

¹Department of Accountancy & Finance, Faculty of Management Studies, Rajarata University of Sri Lanka, Sri Lanka,

²Department of Finance, Faculty of Management Studies, University of Sri Jayewardenepura, Sri Lanka.

Email: ^{1*}dedunuharshani100@gmail.com, ²anuradha@sjp.ac.lk

Article History: Received on 21st February 2020, Revised on 10th March 2020, Published on 18th March 2020

Abstract

Purpose of the study: The study is focused to investigate the impact of board diversity on firm performance through board meetings based on listed manufacturing companies listed at the Colombo Stock Exchange in Sri Lanka.

Methodology: Bio-demographic diversity of Board measured by gender, age and race, and job-related diversity measured on functional, education and organizational tenure. Firm performance measured through Tobin Q and Return on Sales. The number of board meetings conducted per year was taken as a mediating variable. Listed manufacturing companies at Colombo Stock Exchange from 1985 to 2019 were the population from which twenty-eight firms that have been operating from 2013 to 2017 were filtered as the sample. Required data was collected by annual reports, published financial documents, and on which gender index, age index, race index, functional index, education index, and organization tenure index were calculated separately. Multiple regression analysis was used to measure the direct and indirect impact of board diversities on firm performance.

Main findings: The regression result indicated a significant positive impact of gender diversity on firm performance; however age and race diversities had an insignificant impact. Further, the impacts of functional, education and organizational tenure diversities to firm performance were negative. Finally, the study found a significant indirect impact of bio-demographic and job-related diversities on firm performance through board meetings confirming the mediating effect of the board meeting.

Implications: Policymakers and authorizes listed manufacturing firms should identify the escalating trend of women participation, educational improvement in the director board and ought to take necessary actions to maintain appropriate diversity levels in terms of bio demographic and job-related to enhance the firm performance.

The novelty of the study: There is a lack of research literature discussing the impact of board diversity on firm performance with the mediating effect of the board meeting.

Keywords: *Bio Demographic Diversity, Job-related Diversity, Board Meeting, Firm Performance.*

INTRODUCTION

Over the last decade, it seems that the female labor force has been increasing in both developed and developing countries. According to the World Bank statistic, the female labor force in Australia, Belgium, Bhutan, and Indonesia increased by 22%, 33%, 36%, 18% and 14% respectively from 1990 to 2018. In many countries, it was noted that the female entrance to higher education has also increased significantly than that of in 2000. Resulting, women have joined to both public and private sector organization as employees irrespective of the position and field of the organization. The trend has spread those women to represent now top management and the Director Board ([Rupawaththa, 2016](#)). This movement has been slowly but steadily increasing globally ([Pathan, 2013](#)). The director board is the backbone of the organization as it holds the responsibility for leading, directing and managing the firm protecting shareholders' interest; hence, it is deemed as an important mechanism of the company ([Abdullah, 2004](#)). The director board, its composition, and behavior are imperative for an organization to succeed ([Abdullah, 2004](#)). Therefore, today most of the organizations restructured their board composition based on different diversification basis. Accordingly, the director board, its composition, and its behaviors are imperative for an organization to succeed ([Abdullah, 2004](#)). Diversified director board reflects the right mix of skills, knowledge, and experience to manage firms even in the turbulent environment ([Wellalage, 2013](#)).

Diversification involves differences among people in terms of age, gender, knowledge, experience, attitude, values, and personality that are visible and invisible in human life. This heterogeneity can be scientifically grouped as job-related diversity and bio-demographic diversity ([Simons, 2011](#)). Job-related diversity means diversification of employees with the jobs he/she involves that covers job experience, functional expertise, intelligence, values, competence and organization tenure whereas bio-demographic diversity covers demographic differences among people such as gender, age, a race that are relatively stable and visible therefore demographic diversity is known as observable diversity ([Kilic, 2016](#)). According to the socially constructed myths, organizations apprehension to recruit educated and experienced females for managerial positions. Therefore, the balanced diversity of the board of directors still questions in Sri Lanka. Hence it is essential to investigate the

impact of female participation in the director board on firm performance. To fill the existing literature gap, this study focused to explore the impact of board diversity on firm performance concerning listed manufacturing organizations in Sri Lanka.

The rest of the sections is structured as follows: Section two provides a theoretical framework, section three illustrates the conceptual model study used, while section four assesses the impact of board diversity on firm performance through a board meeting. The last section contains concluding remarks.

LITERATURE REVIEW

In the past, business organizations did not pay their attention to board diversity; consequently, the concept had not been discussed and explored well by academics. With behavioral finance, the concept of board diversity came to space and from which it has been receiving increasing attention of academic and even business professionals. Now, people competitively define it and explore every single bit of the diversity without a common consent, resulting, scholars have defined board diversity differently in terms of meaning and context.

The organization's performance directly connects to the board functioning ([Zahra, 1989](#)), as it significantly uplifts the firm's creativity, innovations, and quality of decisions ([Erhardt et al., 2003](#)). Not only that, strategic direction, monitoring of shareholders, use of firms' wealth, recruitment and top management activities significantly affect firm performance Finkelstein et al (1996). Many previous studies on board diversity have confirmed the impact of the demographic diversity of board to firm's strategy designing and performance, consequently, later, most of the studies touched demographic diversity of director board rather than other diversity categories ([Hambrick, 2007](#)). Generally, at a discussion, female directors are willing to ask many questions than male directors ([Konrad et al., 2008](#)), however, they are more corporative in the board discussion ([Tajfel, 1986](#)). In terms of cost, women increase organization humanity cost being more selfish than men ([Andreoni, 2001](#)). Further, they add cost to the firm by maintaining higher absenteeism and turnover ([Cox, 1991](#)).

As firms' performance is influenced resource pool of the firm, directors should have to pay more attention to develop lucrative connections between external constitutes to confirm business survival in a volatile market ([Hillman et al., 2007](#)). Board of directors is the strategic connecting tool of a firm; hence, a greater board diversity may add more benefits to the firm than homogeneous groups ([Hillman et al., 2007](#)), therefore better-performing organizations usually diversify director board adding more females into the board ([Farrell, 2005](#)).

The structural diversity of the board is very weak ([Ararat et al., 2015](#)), in emerging countries. [Fernandez, \(2018\)](#) investigated board diversity and stakeholder management. The result of the study emphasized that board gender, nationality, and race/ethnicity diversities effect to effective stakeholder management, the further study identified that gender and nationality impact to stakeholder management is moderated by board experience. [Anazonwu, et al., \(2018\)](#) identified that board member nationality, the proportion of women directors and proportion of non-executive directors do not have a significant positive relationship with environmental social governance, through a study which measured the impact of corporate board diversity on sustainability reporting at manufacturing firms in Nigeria. However multiple directorships had a significant relationship with environmental social governance. Consequently, the following hypotheses are posited to investigate the impact of board diversity on firm performance.

H1: Bio-Demographic diversity has a direct impact on firm performance of listed manufacturing firms in Sri Lanka.

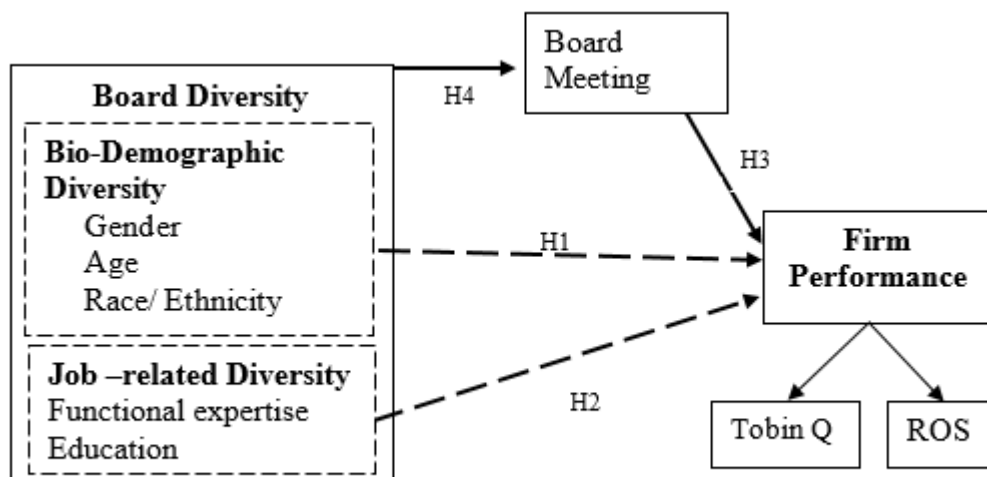
H2: Job-related diversity has a direct impact on the firm performance of listed manufacturing firms in Sri Lanka.

H3: Board Meeting has a direct impact on firm performance of listed manufacturing firms in Sri Lanka.

H4: Bio Demographic and Job-related Diversity has an indirect impact on Firm Performance through the board meeting.

METHODOLOGY

The study was a basic, explanatory and quantitative type one followed by the deductive research method. The dependent variable of the study was firm performance. There are a variety of financial measures that researchers often use to measure performances of the firm such as Tobin Q, ROI, ROE, and ROS. However, in this study ROS and Tobin Q that represented both accounting and financial-based performance measures, measured firm performance listed manufacturing companies. Bio demographic diversity and job-related diversity of the director board were considered as the independent variable. Board monitoring was considered as mediating variable of the study. The relationships among variables well represent the following conceptual framework.



Source: Literature Survey 2019

Figure 1: Conceptual Framework

Bio-demographic diversity of director board measured by gender, age and race, and job-related diversity measured on functional, education and organizational tenure. Firm performance measured through Tobin Q and Return on Sales. A number of the board meeting, the mediating variable was measured by the number of board meetings conducted firms per financial year. All listed manufacturing companies at Colombo Stock Exchange from 1985 to up to date were identified as the population from which twenty-eight firms that have been operating from 2013 to 2017 were filtered as the sample of the study purposefully. Required data were collected on company annual reports, published financial documents, and calculated separate Blau Indexes on them, to have accurate test results. Accordingly, the study developed gender index, age index, race index, functional index, education index and organization tenure index for the study. Multiple regression analysis was used to measure the direct and indirect impact of board diversities to the firm.

ANALYSIS AND DISCUSSION

Table 1: Average Firm Performance Data during the Sample Period

Financial Year	ROS (Average)	Tobin Q (Average)
2013/2014	1.415	1.199
2014/2015	1.305	1.284
2015/2016	1.216	1.130
2016/2017	1.219	0.942
2017/2018	0.856	0.974

ROS: Return on sales

As per table 01, Return on Sales (ROS) of manufacturing firms in Sri Lanka from the 2013/2014 financial year to 2017/2018 financial year has declined drastically. In 2013 the average value was 1.415 and it declined to 1.216 in 2015/2016 in the sector and shown a very little insignificant improvement in the following year by 0.03 decimals. Finally, ROS dropped severely and settled around 0.856 in 2017. The overall behavior of Tobin Q statistics also followed similar behavior except for a few insignificant fluctuations. This decline in the sector performance has been largely caused by many economic and political instability of the country.

Table 2: Blau index of variables

Financial Year	GI	AI	RI	FI	EI	OTI
2013/2014	.1355	.4079	.1838	.3611	.4051	.3059
2014/2015	.1404	.4191	.1961	.3567	.4258	.3112
2015/2016	.1341	.4102	.2031	.3435	.4332	.3131
2016/2017	.1416	.3930	.2224	.3686	.4531	.2967
2017/2018	.1310	.4197	.2154	.3616	.4525	.3111

Overall mean	.1366	.4100	.2042	.3583	.4339	.3076
Minimum	.0000	.0000	.0000	.0000	.0000	.0000
Maximum	.4898	.7755	.6420	.6939	.7813	.6667

GI: Blau index of gender; AI: Blau index of age; RI: Blau index of race; FI: Blau index of function; EI: Blau index of education; OTI: Blau index of Organisation Tenure

Blau's index of gender is varying between .0000 and .4898. As gender has two groups as male and female, then the index would range from zero to 0.5. According to the mean statistics of gender index, the values are always around the .13 and .14 that is very close to zero. This highlights that averagely, gender index has a squid distribution towards zero indicating that one group of gender is dominating the board over the period. The study-grouped board members' age into five categories, hence, the Blau index of age would range from zero to 0.8. As per the statistics, the overall mean value of the Blau index of age is 0.4100. It indicates that board members not fully diversified in terms of age. Moreover, the value of the Blau index of the race would range from zero to 0.75 as it contains four categories as Sinhala, Muslim, Tamil and other. When the board equally represents all four categories of the race the value would take 0.75. The overall mean value of the Blau index of race is 0.204. It says that the board of directors is not fully diverse in terms of race of manufacturing firms of Sri Lanka from 2013 to 2017 financial years.

The Blau index for functional expertise would range from zero to 0.83. According to the Blau index of functional expertise, the overall mean value of the expertise is 0.3583. The value near to zero implies that the diversity of the director board in terms of functional area is not fair. The overall mean value of the education Blau index is 0.4339. The value could take 0.833 when the board of directors represents all types of education categories otherwise value would close to zero. The overall mean value is about half of the ideal diversification level. It signals that directors neither fully nor zero diversity in terms of education. The overall mean value of tenure Blau index is 0.307 and it is close to zero indicating the level of diversification of the director board in terms of organization tenure. It reflects that directors are not fully diversified in terms of organization tenure of manufacturing firms of Sri Lanka during the sample period.

CORRELATION ANALYSIS

Table 3: Correlation Analysis

	Tobin Q	ROS	GI	AI	RI	FI	EI	OTI
GI	.049	.053						
AI	-.139	-.068	.203*					
RI	-.032	-.117	-.369**	-.163*				
FI	-.135	-.319**	.331**	.200*	-.035			
EI	-.312**	-.017	.403**	.192*	-.317**	.119		
OTI	-.259**	-.357**	.155	-.097	.171*	.348*	-.007	
BM	.120	.143	.100	.215*	.152	-.141	.038	.107

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

* . Correlation is significant at the 0.05 level (2-tailed).

ROS: Return on sales; GI: Blau index of gender; AI: Blau index of age; RI: Blau index of race; FI: Blau index of function; EI: Blau index of education; OTI: Blau index of Organisation Tenure; BM: Number of the board meeting held during the financial period.

According to the correlation test statistics, except board monitoring and gender, all other variables are having a negative association with Tobin Q, however out of which only education and organization tenure of the director board were statistically significant. Similar to the Tobin Q, all independent variables have a negative association with ROS except the level of education and board monitoring, out of which functional diversification and organization diversity were statistically significant.

REGRESSION ANALYSIS

The study conducted a few regression analyses to find outs solutions for the research problems. Accordingly, first, two regression analysis was performed to find out the impact of the independent variable on the dependent variables (Tobin Q and ROS) without mediating effect. Model 1 explains the statistics relate to Tobin Q and model 2 contain information pertain to ROS.

The power of the regression is explained by the R square value of the test. According to the model summary table, the R square value of model 1 is 0.247. It confirms that about 24% variation of Tobin Q is explained by the independent variables

(gender, age, race, functional expertise, education and organization tenure). The R square value of regression two is somewhat lower than the previous one. The amount is 0.214; accordingly, six independent variables of the study have the power to explain 21% variation of Return on Sales (ROS) of manufacturing firms in Sri Lanka. The model one has a little bit more power than model two.

Table 4: Regression Coefficient Table of Model 01 and 02

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 Tobin Q	(Constant)	3.077	.392	7.853	.000		
	GI	2.678	.828	.296	.002	.674	1.483
	AI	-1.014	.563	-.144	.074	.890	1.123
	RI	-.174	.553	-.027	.753	.780	1.281
	FI	-.329	.528	-.053	.535	.768	1.302
	EI	-2.840	.587	-.408	.000	.795	1.257
	OTI	-1.740	.489	-.298	.001	.807	1.239
2 ROS	(Constant)	3.311	.631	5.244	.000		
	GI	3.145	1.334	.221	.020	.674	1.483
	AI	-.902	.906	-.081	.321	.890	1.123
	RI	-.294	.891	-.029	.742	.780	1.281
	FI	-2.553	.851	-.263	.003	.768	1.302
	EI	-.772	.945	-.070	.415	.795	1.257
	OTI	-2.787	.787	-.303	.001	.807	1.239

Dependent Variable: Tobin Q (Model 01)

Dependent Variable: ROS (Model 02)

Model 01 : a: Dependent Variable: Tobin Q ;

pendent Variable: ROS ;

ROS: Return on Sale; GI: Blau index of gender; AI: Blau index of age; RI: Blau index of race; FI: Blau index of function; EI: Blau index of education; OTI: Organisation Tenure Index;

According to model 01, the regression coefficient of gender, age, and race are 2.678, -.014 and -0.174 respectively with Tobin Q. The sig values of these three indexes are 0.002, 0.074 and 0.753. Accordingly, as per the model one, gender has a significant impact on firm performance (Tobin Q) however, the impact of age and race to the Tobin Q, are not statistically significant. As per model 02, the regression coefficient of the gender, age, and race are 3.145, -.902 and -.0294 respectively with ROS. The respective sig values are 0.020, 0.321 and 0.742. According to the above result (Model 02), gender diversity has a positive impact on ROS of manufacturing companies in Sri Lanka, however similar to the above result, the negative impact of age and race has on ROS were statistically insignificant. The impact of gender to firm performance has confirmed both models, however, both models rejected the impact of age and race have on firm performance, therefore study did not accept hypothesis one.

Gender diversity in the board room appears to positively impact on firm performance and age and race diversity impact on firm performance statistically insignificant, which is measured by the Tobin Q and ROS. Result of the study in line with previous studies (Kilic, 2016). Previous studies presented several reasons to favor this positive and insignificant relationship. For example female directors bringing new ideas, perspectives, and different skills to board (Rose 2007). Besides, female directors in the director board can fulfill the board's fiduciary responsibility to shareholders. According to statistic female participation enhanced during the period therefore above mentioned changes occurred within the boardroom. Kagzi, (2018) mentioned that older directors are cautious, risk-averse and use their depth of experience in the decision-making process. When the director board diversifies more in terms of age, many practical limitations may arise, in particular, more the age diversity the group conflict and more the internal politics. Ibarra (1995) found that minority ethnic groups have completely heterogeneous views at board discussion than majority counterparts but their level of influence is very low to the board decisions. In Sri Lanka, the majority of employees and customers are Sinhalese, therefore minorities influencing bargaining power is very low, and resulting in race diversity is not significantly affecting the firm performance.

According to model 01, the regression coefficient of the functional expertise, education and organization tenure are -0.329, -2.840 and -1.740 respectively with Tobin Q and its respective Sig values are 0.535, 0.000 and 0.001. Accordingly, the level of education and organizational tenure of the director board have a statistically significant impact on the performance of manufacturing firms in Sri Lanka. According to the regression model 02, the regression coefficient of functional expertise, level of education and organization tenure are -2.553, -0.772 and -2.787 respectively concerning ROS. The sig value of these

variables is 0.003, 0.415 and 0.001. According, the study confirmed the significant impact of functional expertise, organizational tenure on firm performance and rejected the impact of education on firm performance. As two out of three dimensions support to hypotheses, the study accepts the hypothesis: Job-related diversity of director board has an impact on firm performance.

Previous studies presented several reasons to favor this negative and insignificant relationship. [Golden, \(2001\)](#) reported that occupationally diversified boards often understand industry issues differently therefore, it is very difficult to reach a common conclusion in the decision making process. When directors have different levels of education, the low educated guy would not be able to understand the concepts presented by the high educated guy. Further, when the board of directors has similar years of experience as directors, their corporation, collaboration, level of mutual understanding are very high. Then any matter may be solved quickly and diplomatically than the low experienced director. However current board composition diversified in terms of education, functional expertise and organization tenure, these diversifications lead to misunderstanding between board members and may create internal politics and encouraging small-group culture within the board. Accordingly, education, functional expertise and organization tenure diversity has a negative significant relationship with firm performance.

To test the direct impact of the board meeting to the firm performance, a new regression test was conducted considering board meeting as an independent variable and Tobin Q, ROS as dependent variables. Accordingly, regression coefficients of the board meeting were 0.057, 0.108 with Tobin Q and ROS respectively. The sig values of both coefficients were above 0.05, therefore, the study did not accept hypothesis three, and accordingly, the study confirmed that there is no statistically significant direct impact of the board meeting on the performance of manufacturing firms in Sri Lanka.

To assess the mediating role of the board meeting, the study included the number of board meetings conducted per year to the model. Regression model 3 illustrates the mediating effect of a board meeting with Tobin Q whereas model 4 explains with ROS.

According to the table, the R square value of model 3 is 0.281. It confirms that about 28% variation of Tobin Q is explained by the independent variables including mediating variable (Gender, age, race, functional expertise, education and organization tenure, board meeting). After adding the mediating variable to the model, the R square value increased by 4%. It evident the power that the number of board meetings has, to strengthen the relationships. The R square value of model 4 is 0.238. It too swelled when adding a board meeting to the regression model. Accordingly, now six independent variables with mediating variables have the power to explain 23% variation of ROS of manufacturing firms in Sri Lanka and both two models are statistically significant.

Table 5: Regression Coefficient with mediating variable

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
3	(Constant)	2.637	.424		6.227	.000		
	GI	2.310	.826	.256	2.797	.006	.652	1.533
	AI	-1.429	.577	-.203	-2.477	.015	.815	1.227
	RI	-.487	.557	-.075	-.874	.384	.740	1.351
	FI	.070	.542	.011	.129	.897	.701	1.427
	EI	-2.863	.576	-.412	-4.971	.000	.795	1.258
	OTI	-1.946	.487	-.334	-3.999	.000	.783	1.277
	BM	.097	.039	.202	2.478	.014	.817	1.225
4	(Constant)	2.719	.687		3.958	.000		
	GI	2.651	1.340	.186	1.979	.050	.652	1.533
	AI	-1.461	.936	-.131	-1.560	.121	.815	1.227
	RI	-.714	.904	-.070	-.790	.431	.740	1.351
	FI	-2.017	.880	-.208	-2.292	.023	.701	1.427
	EI	-.802	.934	-.073	-.859	.392	.795	1.258
	OTI	-3.065	.789	-.333	-3.882	.000	.783	1.277
	BM	.130	.063	.173	2.052	.042	.817	1.225

Dependent Variable: Tobin Q

Dependent Variable: ROS

a: Dependent Variable: Tobin Q ;

pendent Variable: ROS

ROS: Return on sales; GI: Blau index of gender; AI: Blau index of age; RI: Blau index of race; FI: Blau index of function; EI: Blau index of education; OTI: Organisation Tenure Index; BM: Number of the board meeting held during the financial period.

Source: Survey Data 2019

As indicated in model 3, gender, age, education, and organizational tenure have statistically significant impacts on the performance of manufacturing firms (Tobin Q). However, age had no significant impact on firm performance earlier but this insignificant effect of age converted to significant with a board meeting. Further, the direct impact of gender, age, education and organization tenure to firm performance also decreased because of the mediating variable. However, before and after the mediating effect, the impact of race and functional expertise diversity on firm performance did not change with Tobin Q.

According to model 4, gender, functional expertise, education, organizational tenure have a statistically significant impact on firm performance (ROS) of manufacturing companies in Sri Lanka. However, the direct explanatory power of gender, age, race, education and organization tenure have significantly lowered after adding board meeting variables to the model, therefore it confirms the mediating power of board meeting to firm performance.

To test the mediating impact of the board meeting on firm performance, the Researcher tested the explanatory power of board meetings to firm performance through developed models. According to the regression models 3&4, the impacts of the board meeting to the performance of manufacturing firms are statistically significant and it lowered the explanatory power of some bio-demographic and job-related factors too. This statistical evidence is strong enough to confirm the mediating effect of the board meeting to firm performance. Hence, the study accepted hypothesis four: Board Diversification has an impact on firm performance through the board meeting. Accordingly, gender, age, functional expertise, education, and organizational tenure have an indirect impact on the firm performance of manufacturing companies through board meetings in Sri Lanka.

The result support to conclude that when the number of the board meeting in the organization increase no party take dominance over others in decision-making. This finding confirmed the quorum of the board's effect on the decision-making process. The quorum effect states that when the majority of boards belong to one particular gender group, minority voice is not valued much in the decision-making process, resulting in final decisions that are largely affected by the majority of the board. The impact increased with the number of board meetings. Accordingly, when the number of the board meeting high, diversity of gender work minimum (Ararat et al; 2015). Further, more age diversity encourages vivid perspectives in the decision process, and it may lead to unnecessary discussions at board meetings. This negative relationship may exist because of the communication errors and a long decision-making process of the organization. If the organization facilitates more board meetings, this negative impact could be mitigated (Ararat et al; 2015). This may be because if an organization facilitates board gathering they can discuss everything and board can decrease limitations arise from personal interest, and further high educated members can facilitate their ideas to the board accurately, therefore negative relationships can be decreased when compared with before mediating effect. Milliken and Martins (1996) mentioned that educationally diversify board has the problem-solving ability; therefore they manage available information efficiently for the decision-making process.

CONCLUSION

In a competitive business environment, achieving business performance is a challenging task, therefore firms are thinking of different ways and means to keep its current success and uplift the performance if possible. In this background, the board diversity of firms has received increasing attention of business philosophers as a strategic solution to the problem. The director board often represents the top executive layer of a firm where all strategic movements are confirmed. When the director board diversity on a different basis, the same issues could be observed differently and could use different solutions. Resulting, the study focused to measure the impact of board diversity on firm performance. This objective was achieved on listed manufacturing firms at the Colombo Stock Exchange in Sri Lanka. The current study considered bio demographic diversity and job-related diversity of directors as diversity categories.

The first objective of the study was to identify director board diversity in terms of Bio-demographic and jobs related to listed manufacturing firms in Sri Lanka. As per the descriptive statistic, board members represented both gender groups however female participation at the director board has been continuously increasing. Further, the majorities of board members are Sinhalese and belongs to 56-65 age groups. Under job-related diversity, descriptive statistics emphasized that board members have specialized in different functional areas and the majority of the director board specialized in the management discipline.

The second objective of the study was to identify the impact of bio-demographic and job-related diversity of director board to firm performance of listed manufacturing companies in Sri Lanka. According to the test result, gender diversity has a statistically significant positive impact on firm performance but the impact of age and race to the firm performance was

statistically insignificant. Relating to the Job-related diversity, functional, educational and organizational tenure diversities have a statistically significant negative impact on the performance of manufacturing firms in Sri Lanka. Third, the study observed the impact of board meeting mechanism on firm performance, and it found that the board meeting has an insignificant impact on firm performance.

Finally, the study tried to find out the indirect impact of bio-demographic diversity and job-related diversity on the firm performance of manufacturing companies through a board meeting. According to the regression analysis result, the direct impact of job-related diversity to firm performance decreased and its indirect effect on the firm performance through board meeting increased confirming the mediating effect of the board meeting to the firm performance

LIMITATION AND STUDY FORWARD

The study has a few limitations. One, the study investigated the impact of board diversity on firm performance of listed manufacturing companies only, therefore the findings would not be generalized to all listed firms in the Colombo Stock Exchange. Second, only selected bio-demographic and job-related diversities considered in the study, albeit theoretically many diversity bases are visible in the business environment and are affecting the performance of business firms in Sri Lanka. Hence, a room is vacant for future studies to discuss the impact of another diversity basis on the firm performance. Further, there are still unfilled literature gaps in the board diversity and firm performance area in emerging countries in different industries, therefore, future research could be more focused on service industries such as banking, insurance...etc.

ACKNOWLEDGMENT

All corporate delegates of listed manufacturing companies at Colombo Stock Exchange in Sri Lanka, and the academic staff of Rajarata University and especially my academic supervisors should be thanked for extending their invaluable support to get this research work success.

AUTHOR CONTRIBUTION

HH Dedunu: Principle investigator, contributed to the introduction, literature review, methodology, data analysis and the conclusion sections of the study.

PANS Anuradha: Supervisor of the study, contributed to the literature review, methodology, data analysis sections and ensuring the overall quality of the study directing me when necessary.

REFERENCES

1. Abdullah, S. (2004). Board composition, CEO duality, and performance among Malaysian listed companies. *Corporate Governance*, 4(4), 47-61. <https://doi.org/10.1108/14720700410558871>
2. Anazonwu, H., Egbunike, F., & Gunardi, A. (2018). Corporate Board Diversity and Sustainability Reporting: A Study of Selected Listed Manufacturing Firms in Nigeria. *Journal of Sustainability Accounting and Management*, 2(1), 65-78. <https://doi.org/10.28992/ijssam.v2i1.52>
3. Andreoni, J., & Vesterlund, L. (2001). Which is the Fair Sex? Gender Differences in Altruism. *The Quarterly Journal of Economics*, Volume 116, 293-312. <https://doi.org/10.1162/003355301556419>
4. Ararat, M., Aksu, M., & Tansel, C. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance. An International Review*, 23(2), 83-103. <https://doi.org/10.1111/corg.12103>
5. Brown-Kruse, J., & Hummels, D., (1993). Gender Differences in Laboratory Public Goods Contribution: Do Individuals Put Their Money Where Their Mouth is? *Journal of Economic Behavior and Organization*, Volume 22, 255-267. [https://doi.org/10.1016/0167-2681\(93\)90001-6](https://doi.org/10.1016/0167-2681(93)90001-6)
6. Cox, T., & Blake, S. (1991). Managing Cultural Diversity: Implication for Organizational Competitiveness. *Academy of Management Executive*, Volume 5, 45- 56. <https://doi.org/10.5465/ame.1991.4274465>
7. Erhardt, N., Werbel, J., & Shrader, C. (2003). Board of Directors Diversity and Firm Financial Performance. *Corporate Governance: An International Review*, 11(2), 102-111. <https://doi.org/10.1111/1467-8683.00011>
8. Fama, E., E., & Jensen, M. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, Volume 26, 301-325. <https://doi.org/10.1086/467037>
9. Farrell, K., & Hersch, P. (2005). Additions to corporate boards: The effect of gender. *Journal of Corporate Finance*, Volume 11, 85-106. <https://doi.org/10.1016/j.jcorpfin.2003.12.001>
10. Fernandez, W., & Thams, Y. (2018). Board diversity and stakeholder management: the moderating impact of boards' learning environment. *The Learning Organization*, 26(2), 160-175. <https://doi.org/10.1108/TLO-12-2017-0126>
11. Golden, B., & Zajac, E. (2001). , 2001. When will boards influence strategy? inclination × power = strategic change. *Strategic Management Journal*, 22(12), 1087-1111. <https://doi.org/10.1002/smj.202>

12. Hambrick, D. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334–343. <https://doi.org/10.5465/amr.2007.24345254>
13. Hillman, A., Shropshire, C., & Cannella, A. (2007). Organizational predictors of women on corporate boards. *Academy of Management Journal*, Volume 50, 941-952. <https://doi.org/10.5465/amj.2007.26279222>
14. Julizaerna, M., & Sorib, Z. (2012). Gender Diversity in the Boardroom and Firm Performance of Malaysian Public Listed Companies. *Social and Behavioral Sciences*, Volume 65, 1077-1085. <https://doi.org/10.1016/j.sbspro.2012.11.374>
15. Kagzi, M., & Guha, M. (2018). Does board demographic diversity influence firm performance? Evidence from Indian-knowledge intensive firms. *Benchmarking An International Journal*, 25(3), 1028-1058. <https://doi.org/10.1108/BIJ-07-2017-0203>
16. Kilic, M., & Kuzey, C. (2016). The effect of board gender diversity on firm performance: evidence from Turkey. *Gender in Management An International Journal*, 31(7), 434-455. <https://doi.org/10.1108/GM-10-2015-0088>
17. Konrad, A., Kramer, V., & Erkut, S. (2008). Critical mass: the impact of three or more women on corporate boards. *Organizational Dynamics*, Volume 37, 145–164. <https://doi.org/10.1016/j.orgdyn.2008.02.005>
18. Milliken, F., & Martins, L. (1996). Searching for common threads: understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, Volume 21, 402–433. <https://doi.org/10.5465/amr.1996.9605060217>
19. Pathan, S., & Faff, R. (2013). Does the board structure in banks affect their performance?. *Journal of Banking & Finance*, 37(5), 1573-1589. <https://doi.org/10.1016/j.jbankfin.2012.12.016>
20. Rose, C. (2007). Does the female board representation influence firm performance? The Danish evidence. *Corporate Governance*, 15(2), 404-413. <https://doi.org/10.1111/j.1467-8683.2007.00570.x>
21. Rupawaththa, R., & Gunasekara, W. (2016). Do Women in Top Management Affect Firm Performances? Analysis of Public Quoted Companies in Sri Lanka. (pp. 53-73). Nugegoda: University of Sri Jayawardenepura. <https://doi.org/10.2139/ssrn.2908791>
22. Simons, S., & Rowland, K. (2011). Diversity and its Impact on Organizational Performance: The Influence of Diversity Constructions on Expectations and Outcomes. *Journal of Technology Management & Innovation*, 6(3), 171-183. <https://doi.org/10.4067/S0718-27242011000300013>
23. Tajfel, H., & Turner, J. (1986). The Social Identity of Inter-Group Behavior'. (pp. 7–24.). Nelson-Hall, Chicago: S. Worchel and W. Austin.
24. Wellalage, N., & Locke, S. (2013). Corporate governance, board diversity and firm financial performance: new evidence from Sri Lanka. *Int. J. Business Governance and Ethics*, 8(2), 116-136. <https://doi.org/10.1504/IJBGE.2013.054416>
25. Zahra, S., & Pearce, J. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15(2), 291–334. <https://doi.org/10.1177/014920638901500208>