

BOARD INTERLOCKING AND FIRM PERFORMANCE: MODERATING ROLE OF BOARD DIVERSITY IN PAKISTAN

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Abstract

The research study aims to identify the Board interlocks impact on firm performance and board diversity role affecting their relationship. For data collection Probability sampling technique has been used. Data of 93 firms from different sectors registered on Pakistan stock exchange has been collected for the time period 2011- 2017. Firm Performance has been measured using return on asset. Board interlocking has been measured using number of interlocks and Board diversity has been measured through board size. Regression and correlation methods have been used for data analysis. Findings of the present study suggests that interlocking directorates have negative and significant effect on firm performance and these interlocks negatively contribute in the operational and managerial performance of the firms. Results also suggest negative association amongst board diversity in turning around board interlocks. Results of the research study can be advantageous and valuable for security exchange commission of Pakistan to upgrade the corporate governance laws and to take necessary measures regarding regulations to empower board of director's role as supervisor in Pakistanifirms. According to the findings of this research study, Necessary measures can be taken by regulatory Authorities towards maximum number of seats a person can hold as a board of director and formulate policies which can regulate board interlocks among organizations.

Keywords: Corporate governance, Firm Performance, Board interlocking, Board diversity

Introduction

Corporate governance, the most discussed topic by the financial researchers. Corporate governance classifies the directions and guidelines which help firms in the decision making and smooth functioning of the organization (Gill, 2008). Corporate governance is a framework which serves to identify the relationship of manager, shareholders and directors of the board to overcome the agency issues. Due to complex business environment, role of corporate governance also extends beyond the traditional view like accountability, reporting, disclosure and board of director's role. Organizations have undertaken their assurance to honest and fair corporate governance application in their operations. Board of directors plays an important part in monitoring, execution of policies and strategic decisions within the organization. Corporate governance codes are formulized to ensure that board of directors will make unbiased and fair decision making. When board of director of one organization serve as director of other organization and establish a connection or a tie this is called board interlock (Fich and White, 2001). Board interlock is a widely researched topic in finance (Allen, 1974; Dooley, 1969).

In developed countries board interlocking is a common practice. In united states of America 90% of the firms have at least one board interlock in each firm till 1930(Dooley,1969).Au et al,(2000) surveyed 200 firms and findings revealed that64% board interlocks exists in United States of America,69% in United Kingdom and61% in HongKong.Mandojana and Correa(2015) documented that directorate networks exert positive influence on the environmental company performance. Another study documented that directorate networks played important role in new product development (Perrone &Kamuriwo, 2016).Brauna et al. (2017) argued that firm linked with banks through directorate interlocks has greater access to the credit and overcome their financial constraints due to the linkage of the firms with the banks.

Researchers havetwo different schools of thoughts about board interlocking. one school of thought believes that board interlocking is beneficial for the organization because thesenetworks are important source of sharinginformation, resources and overall helps in improving the relationships among the

organizations (Schoorman et al.,1981).Board interlocking is common practice in management through which board of directors have easy and timely access to the reliable information (Beckman &Haunschild, 2002) and it is purely based on the market competition that each company compete to have professional and experienced director on their board (Mizruchi 1996;Fich and White, 2001).Whenboards of directors are serving on multiple boards, they are unable to perform their duties because of scarcity of time.Some studies supported that argument by busyness hypothesis that directors are unable to safeguard the shareholder's interest.Other argument is that the board of directors safeguard their own interest by taking privileges and utilizing the resources for their own personal benefits by ignoring the benefits of the shareholders. Conversely there are some researchers who documented the negative relationship amongst firm performance and board interlocks. Fich and Shivdasani (2006)analyzed500 firms of US for the time period 1989-1995anddocumented that directorate networks negatively impacted the firm performance.Another argument is that boards of directors safeguard their own interest by taking privileges and utilizing the resources of the organization for their personal benefits instead of shareholder's benefit.Board diversity states differences among board members and has been characterized between cognitive dimensions and demographic dimensions(Erhardt, 2003; Mahadeo et al., 2012).Grosvold et al. (2017) suggested that in complex business environment board Diversity has gained a strategic importance in organizations for several reasons. Firstly, investors implement diversity as a screen for best investment practices and in some organizations, it is mandatory for socially responsible investment indices. Secondly, board diversity is the requirement of employees, investors and other stakeholders to the overcome the concerns and safeguard the shareholder's interest. Thirdly, Board diversity is important topic of discussion in the corporate governance. Some researchers believed that board size is linked with board diversity larger the board more diverse it will be. Larger board size also helps to overcome agency issues and supports resource dependence Perspective. Lehn et al. (2009) acclaimed that firms with larger boards of directors are more prone to get timely and valuable information; in case complexity increases, the board of director will hire a new director having relevant knowledge to compete and have better position in financial market. Therefore, firm performance is impacted by board size. Kaczmarek et al. (2014) and Filatotchev et al. (2006) laid stress on future researchers to collect datafor or different sectors and Asian countries for further exploration of board interlocking. This studyfills the gap of priorworkusing longitudinal data of different sectors for the analysis of board interlocking.Thecurrent study widens the scope of interlocking directorate's literature by analyzing important variables like firm performance. These are very important research variables to study. However, the association of those variables with board diversity as moderating variable is unique and significant contribution of this study to the present body of knowledge in cultural settings of Pakistan.

Board of director's agency role can be described as board of director's governance function in serving the shareholders / owners by monitoring management decisions and safeguarding the interest of shareholders. Mace (1971) and Mills (1956) stated that board interlocks create social links between upper class members and represent integration of capitalist class. Resource dependence theory provides justification for the view that board interlocks are linked with improved and bettercorporate performance. The mainidea is that board interlocks not only facilitate organizations to get required information and resources to enhance their financial performance (Casciaro &Piskorski, 2005;Pfeffer&Salancick, 1978; Westphal, Boivie, &Chng, 2006). Social capital theory describes board directoratesremarkably. As Pfeffer's (1973) and Pfeffer andSalancik's (1978)significant works on boards highlighted the importance of board networks as important job of a director which provide faster and earlier access of timely and valuable information and quick access to critical resources, resultant in improved financial performance(Carpenter and Westphal, 2001; Tian et al., 2011; Kor and Sundaramurthy, 2009).In board directorship Social capital theory fits very well. Directors are responsible for network building outside and inside the organization (Pfeffer's ,1973). Firms may benefit by director's personal contacts and experiences in social capital form.

Kaczmarek et al. (2014) studied relationship amongst corporate performance, board diversity and board interlock and documented that board diversity positivelyimpact firm performance.In Pakistani perspective board interlocking is not much researched topic.Most of the research has been done on the characteristics of board, gender diversity among board members andcorporate governance effect on performance of the firm. Most recent studies such asyasser, mamun and rodrigs (2017) documented the positive relationship amongst board composition and firm performance. Amin, Iftikhar and Yasir

(2013) investigated the relationship amongst characteristics of board structure and performance of firm. They found characteristics of board positively effect financial performance of company. The study aims to inspect the concept of board interlocking in Pakistan perspective. Pakistan is the rapidly growing economy in the world and foreign investment is also increasing. There are two major contribution of the study first contribution is the investigation of interlocks in Pakistani listed firms. Second important contribution of the current research is to inspect the moderation effect of Board Diversity. This study will be helpful for regulatory authorities to improve the corporate governance rules and processes in Pakistan in addition it will encourage the board diversity amongst Pakistani listed firms.

Literature review

Board interlocking is the presence of board of director of a firm on the other firm's board also. This corporate practice in literature is called "board interlocking"; i-e, when one company's member of board is also the board member of another company (Burt, 1979; Mizruchi, 1996). For Shropshire (2010), board interlock can be described as connection of director, which makes network structure that may effect managerial decisions by experiences sharing and knowledge. There is vast literature on the negative and positive board interlocking impact on the firm performance some literature states that these board interlock benefits the organization as director's expertise and their contacts and knowledge benefit the organization. As, Martin, Gözübüyük, and Becerra (2015) suggested a framework for exploring the link amongst interlocking directorates and firm performance undertaking the uncertainty role by taking the sample of 3745 united states firms for the time period 2001-2009 across manufacturing sector. The study findings proved that interlocking directorates has positively and significantly impact performance of the firm in uncertain time period.

Hagan (2017) investigated the female board members role in the context of directorate interlocks and their influence on the corporate performance. For female directors, the variables studied proportion of female directors to the total number of board directors. Performance measures earning per share were taken as profitability measure of the firm. Control variables of the study were firm industry where the firm belongs to and male board of directors participation. Sample of 32000 both male of female firms were selected from states of America for the year 2012. Regression analysis revealed that female participation as board of director that is female board directors and percentage of female directors to the male directors positively impact earnings per share and also the female board interlock has positive impact on the earning per share as the female board interlock higher the earning per share of the firms. For control variables industry found insignificant to the firm performance however the male interlocks were found significant for the firm performance.

Peng et al. (2015) studied the relationship amongst board interlocks as strategic networks and the corporate performance (which are listed abroad). Firms were classified on the basis of their ownership as main Chinese firms, Hong Kong Chinese firms, British colonial firms, and centrality and furthermore in centrality the variables studied were Closeness centrality, degree centrality, betweenness centrality. Because of high speculation accounting based measures were taken as a proxy of corporate performance. Firm size, on board family members and board size were studied as control variables. Qualitative and quantitative both techniques were used to analyses the data. Sample were taken for the period 1990 to 1997. The results of the study revealed that performance seemed to remain good in all type of firms and closeness centrality and betweenness centrality has strong impact on ROE and ROA. Numbers of directors and types of firms have no strong effect on financial performance. However, overall the study outcomes revealed that board interlock as strategic network has positive effect on the corporate performance.

Some researchers showed that Board interlocks with banks benefit the firm by providing easy access to the credit as compare to other firms. Like Brauna, Brionesb, Islasa (2018) examined the relationship of directorate interlock with the perspective of banks and performance of firm in early industrialization with the context of Chile. The study employed the sample of 252 firms registered in Santiago stock exchange excluding the insurance companies. Variable of the study were leverage ratio, market to book value of equity ratio and bank connection effect on survival of firms. Research study revealed that Firms with higher interlock have higher survival in the market as compared to the firms with low directorate interlock networks. Board interlock as the connectivity of the firms with the networks tends

to have higher market valuation as compare to the other firms. Overall the research showed a positive and significant impact on company performance and directorate interlock with banks.

Firm performance as dependent variable is mostly used and it's a significant construct across the world in managerial research. Matari, Yemen and Abdullah (2014) recognized at least nine dimensions: market value performance, profitability performance, environmental audit performance, growth performance, customer satisfaction, employee satisfaction, environmental performance, social performance and corporate governance performance. Multidimensionality indicates multiple dimensions cannot be used interchangeably as these dimensions represent diverse firm performance aspects. The strategies may also have diverse effect on every dimension.

Firm performance accounting-based measures are commonly used. Return on Equity (ROE), return on asset (ROA) and return on investment (ROI) are commonly used proxies for financial performance since these measures have been used by Demsetz and Lehn (1985), Gorton and Rosen (1995), Mehran (1995).

Board diversity has been defined in multiple ways, but the literature has largely examined the impact of gender and nationality. Regarding gender diversity, despite a steady growth attained in recent years, there is still limited representation of women on boards of company. There is acknowledgement in the literature of group efficiency that board diversity permits members of the groups to get way in to valuable information and perceptions drawn from outside the group (Ancona and Caldwell, 1992). Diverse boards, where every director have different qualities, traits and experience the more organization will be able to get better decision making and advice. Garg (2007) examined the data of 164 companies listed in Bombay stock exchange for the time period 1997-1998 and 2002-2003 and revealed that board size and firm performance has inverse relationship. Sahu and Manna (2013) argued that board size has Positive impact on firm performance in the context of India. Jenter et al. (2018) studied the relationship amongst board size and firm performance in the context of Germany. whether board size impact performance. 262 non-financial firms were taken as sample which have more than 7500 employees in one financial year at least for the time period 1987–2016. sample included public and larger private companies and the data was extracted from database (www.bilanzen.de). ROA and Tobin Q were used as a proxy of performance. Regression discontinuity analysis was performed. Findings of the study revealed that larger board firm's effectiveness reduce firm performance in the context of German companies.

Most of the work done in Pakistanis in the context of corporate governance related to firm performance. Akbar (2015) examined the role of corporate governance in enhancing the financial performance of the firm by presenting a theoretical framework by which he not only incorporated conventional measures but also regulatory measures. Lehn et al. (2009) suggested that larger boards of directors can provide a higher standard of information and advice; in case, if the complexity of the business increases, the board will hire new directors with the relevant knowledge to offer better guidance. Above Mentioned theoretical framework can be summed up in following hypothesis:

H1: *board interlocks has significant impact on firm performance.*

H2: *The relationship between board interlocking and firm performance will be significantly moderated by the level of board diversity.*

Methodology

This study aims to check effect of board interlocking on firm performance along with moderating role of board diversity in Pakistani listed firms, for that purpose quantitative data for the period 2011-2017 is used. In the present study the data is collected from secondary source. Data sources from where we collected data are State Bank of Pakistan and annual reports of firms. Data is analyzed using E-views 8. To overcome and deal with the problems of multicollinearity and autocorrelation the Pearson correlation and Variance inflation test is applied. To find standard deviation and mean of the variables the descriptive statistics is applied. Fixed effect model has been used to derive the effect of board interlocking and firm performance and to analyze the moderating role of board diversity.

Econometrically, regression equation for panel data regression models is expressed as follows:

$$Perf_{it} = \beta_0 + \beta_1 \#Interlock_{it} + \beta_2 CEO_T_{it} + \beta_3 NED_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 FINLEV_{it} + \epsilon_t$$

In model 2 moderating variable board Size interaction with board interlocking is included model 2 is as follows:

$$Perf_{it} = \beta_0 + \beta_1 \#Interlock_{it} + \beta_2 (Interl \times BoardSize) + \beta_3 CEO_T_{it} + \beta_4 NED_{it} + \beta_5 SIZE_{it} + \beta_6 AGE_{it} + \beta_7 FINLEV_{it} + \epsilon_t$$

Where β_0 is constant term, ϵ_i , is mean zero error, i and t indicate firm and year, respectively. The above model defines the relationship of board interlock with firm performance along with moderating role of board. Both the independent and dependent variables were obtained for each company (i) and for each year analyzed (t). Where # Interlock is number of interlocks, CEO_T is CEO tenure, NED is Non-Executive Directors, Size is Firm Size, Age is firm Age and Fin Lev is Financial Leverage.

Table 1: Measurement of Variables

Variables	Symbol	Measurement
Return on Asset	ROA	Net profit to Total Assets
Board Interlocks	BI	Number of interlocks
Board Size	BS	Number of board of directors
CEO tenure	CEO_TEN	Number of years CEO served in an organization
Non-Executive Director	NED	Proportion of NED's to total board size
Firm Size	FS	Natural log of total Assets
Firm Age	FA	firm age since the establishment till the year of study
Leverage	Lev	Total Debt to Total assets.

Analysis and Interpretation

The influence of board interlocking on firm performance with moderating effect of board diversity has examined in present research study.

Table 2: Descriptive Statistic

Variables	Mean	Std. Dev.	Maximum	Minimum	Probability
FP(%)	8.72	0.120678	63.45403	-18.9026	0.000
BI (No.)	3.494286	4.478046	22	0	0.000
BD (No.)	8.532857	1.943495	15	5	0.000
CEO_TEN (Years)	5.861429	4.305334	25	1	0.000

NED(%)	56.30791	21.17391	100.0000	0	0.000
Firm Size(Rs.)	33,514,162	71,118,109	590,000,000	3,221	0.000
Firm Age (Years)	37.65473	22.4901	157	4	0.000
Leverage(%)	0.4799	0.208	0.99	0	0.000

Table 2 shows the descriptive statistics of all the variables used in current model. Below table show that mean, minimum, maximum values and standard deviation of all the variables used in the current study.

Table 3: Pearson Correlation between all variables

Variables	ROA	BI	BS	CEO TEN	FA	FS	LEV	NED
ROA	1							
BI	0.047	1						
BS	0.040	0.034	1					
CEO TEN	0.032	-0.017	-0.081	1				
FIRM_AGE	0.068	-0.105	0.082	-0.007	1			
FIRM_SIZE	0.202	-0.010	0.195	-0.018	0.157	1		
LEVERAGE	0.058	-0.030	-0.019	0.132	-0.012	-0.026	1	
NED	0.022	-0.007	0.079	0.046	0.003	0.066	0.043	1

NOTE: *, **, ***Significance value of p-value < 0.05, ROA is a proxy used for firm performance, BI is number of board interlocks, BS is Board size is a proxy used for board diversity, CEO ten is CEO tenure and NED is Non- Executive Director ratio, FA is Firm age, FS is firm size and Lev is Leverage.

The results provided in table 3 suggests that board interlocking, and board size is higher correlated with firm performance (ROA). The Study used common-effects model to inspect the relationship between board interlocking and firm performance. Model 1 examined the direct relationship with board interlock and control variables. Model 2 examined the relationship of ROA and board interlocking along with control variables with interaction term. Table no 4 reports the relationship of ROA on board interlocking and control variables.

Regression Analysis

Two criterions have been used for model selection; Hausman test and likelihood ratio in this current study. Likelihood ratio was significant and Hausman test results are insignificant therefore random effect model is inappropriate and fixed effect model has been used to estimate the results.

Likelihood Ratio Test

Here,

Null hypothesis: Common effect is more appropriate

Alternate hypothesis: Fixed effect is more appropriate

Table 4: Likelihood Test

Effect Test	Statistics	d.f	Prob.
Cross-section F	11.57	(65,370)	0.0000
Cross -Section Chi-square	491.46	65	0.0000

Results in table 4 show the significant cross-section Chi-square with p-value of 0.0000 and hence the fixed effect model is more appropriate.

Fixed Effect Model

A linear panel data model with the firm fixed-effect to estimate the results is used. Model 1 examined the direct relationship along with board interlock and control variables. Model 2 examined the relationship of ROA and board interlocking along with control variables with interaction term. Table no 5 reports the ROA relationship on board interlocking and control variables. Column 1 shows variables name used in the model. Direct paths are tested by researcher in model 1 and 2. Number of board interlocks shows the board of director's total number acting as director in other listed firms in Pakistan stock exchange. R-square discloses the data closeness on a fitted line, adjusted R-square reveals that how much variation in proportion is described in dependent variable by the independent variable. Existence of multi-collinearity issue is tested by D-W stats. 2-4 is the range of DW stat. Years demonstrate that the total number of years data has been collected. Data has been collected for the time period 2011-2017 therefore, researcher used data of 7 years for present study. For p-value the range of Significance is (< 0.05).

Table 5: Impact of Board Interlocking on Firm Performance along with Moderating Role of Board Diversity:

Variable	Model 1				Model 2			
	Coefficient	Std. Error	t-Statistic	Prob.	Coefficient	Std. Error	t-Statistic	Prob.
Log of BI (No.)	-3.25836	1.619397	-2.01208	0.0449***	7.416903	3.890459	1.906434	0.0574***
Log of BI*BD					-10.5395	3.500207	-3.01112	0.0028***
Log of CEO Ten (Years)	-1.01889	0.591972	-1.72118	0.0861	-0.93958	0.586231	-1.60275	0.1098
NED (%)	0.043752	0.022044	1.984802	0.0479***	0.030501	0.022248	1.370989	0.1712
Log of FA (Year)	8.596486	3.345329	2.569698	0.0106***	9.764296	3.332189	2.930295	0.0036***
FS	-1.22042	0.571277	-2.1363	0.0333***	-1.31208	0.565985	-2.31822	0.021***
LEV (%)	-6.53615	2.07157	-3.15517	0.0017***	-6.3349	2.050499	-3.08944	0.0022***
C	4.73017	10.62686	0.445115	0.6565	24.98115	12.4803	2.001646	0.0461***
No of Obs.	443				443			
R-Square	0.723023				0.729648			
Adj. R-Sq.	0.670016				0.677038			
D-W Stats	1.508937				1.487576			
Years	7				7			

NOTE: *, **, ***Significance value of p-value < 0.05, BI is number of board interlocks CEO ten is CEO tenure and NED is Non-Executive Director ratio, FA is Firm Age ,FS is Firm size and Lev is leverage.

In Model 1, board interlocking impact on firm performance in Pakistan is analyzed. Results reveals that interlocking directorates has statistically significant and negative coefficient which shows board interlocks negatively impact the financial performance of Pakistani listed firms. Previous researches shows that due to the busyness of the board of directors their professional commitment gets compromised which negatively impact the financial performance of the firm(Santos, Silveira &Barros, 2012).These findings are consistent with Kaczmarek et al, (2014) who also reported negative association amongst board interlock and firm performance. Therefore, the findings may prove that our **Hypothesis 1** that board interlock has significant impact on firm performance.

Firm Age coefficient is positively and significantly associated to the firm perform it means that firm age has positive impact on the company's financial performance. This means that old firms get more resources and more focused to achieve their financial goals instead of immature or low age firms.

Firm Size shows the significant negativecoefficient it means that firm size has negative relationship with company's financial performance. The results are also in line with the prior researches that firm size influence the firm's management policies and corporate performance of the companies (warokka,2008). Larger companies are more diversified and tend to align their objectives in order to meet their financial goals.CEO tenure shows negative and insignificant coefficient, it means that time period a CEO hold chair in an organization does not effect the performance of Pakistani listed firms. Non-Executive Director Ratio shows significant positive effect on firm performance, it means that when the Non-Executive Director ratioincreasesin the board size total numberit's positively effect the Pakistani listed firm's financial performance.

Coefficient of Leverage is significant but negative effect on Pakistani listed firm's financial performance. This shows significant and negative association with financial performance. R-square value shows 72.96 %, it means that 72.96% variation is due to independent variable.

In Model 2, the result of Board interlocking impact on financial performance of Pakistani listed firms with moderating role of board diversity has shown. Result shows that board interlocking effect significantly on Pakistani Listed financial performance of firms.

Interaction term Board Interlock*Board Diversity shows negative but statistically significant relation with the performance it means that board interlock and board size significantly but negatively effect the firm's financial Performance listed in Pakistan. Nguyen, H., & Faff, R. (2007)found that, smaller boards are more effective to safeguard the shareholders interest. Larger board size with greater diversity of boards may increase agency cost due to their difference of opinion. These results are in line with prior researches that board diversity has negative association with firm performance (Darmadi, S. ,2011).Therefore, the results may prove that our **Hypothesis 2** that board diversity significantly moderates relationship between board interlock and firm performance.

Firm Size coefficient is negative and statistically significant which means that firm size significantly and negatively impacts financial performance. The results also in line with the prior researches that firm size influence the firm's management policies and financial performance of the companies (warokka,2008). Larger companies are more diversified and tend to align their objectives in order to meet their financial goals.

Coefficient of Leverage is negative and statistically significant related to Pakistani listed financial performance of the firms. This shows negative but significant relationship with financial performance.

CEO tenure shows negative and insignificant coefficient, it means that time period a CEO hold chair in an organization has no effect on the financial performance of Pakistani listed firms.Non-Executive Director Ratio shows positive but insignificant effect on firm performance, which means that when the Non-Executive Director ratioincreasesin the board size total number its negatively effect the financial performance of Pakistani Listed firms.

Firm Age coefficient is positive and significantly related to the firm perform it means that age of the firm has positive effect on performance of the Pakistani listed firms. As old firms get more resources and more focused to achieve their financial goals instead of immature or low age firms. R-square value shows 72.30 %, it means that 72.30% variation is due to independent variable.

Conclusion

In the current economic period, the organizations hire well qualified and experienced board of directors in organization which leads to the condition where board of directors occupy seats in various organizations this is called board interlock or board ties. Board interlocking is the efficient and cheaper way to utilize available financial and managerial and operational resources of the organizations. The study intended to inspect the board interlocking impact on financial performance by analyzing Pakistani listed firms for the time period of seven years. Results support the argument that board interlocking directorates have negative impact on the corporate financial performance of the Pakistani listed firms.

In view of agency and resource dependence theory the findings of the research support the agencybased perspective that these interlocks or board ties are used for their personal benefits by the board of directors. Mace (1971) and Mills (1956) stated that board interlocks create social links between upper class members and represent integration of capitalist class. Fama and Jensen (1983) and Eisenhardt (1989) also stated that too much use of board interlocking is also to be expected to represent director's total cues number which these directors are incapable to reconcile, thus their inadequate management attention compromised. Board diversity that is board size, larger board size leads to the higher board room diversity has significant and negative relationship with firm performance. Board diversity leads to higher flow of information and leads to birth of agency issue due to the difference of opinions.

In spite of extensive research on board interlocking there is much need to learn on this subject with the time. Overall the results of the study make an important contribution in board interlocking literature by analyzing the moderating effect of board diversity that how and under what conditions these board interlocks along with diverse board can impact firm task performance and strategic outcomes. Negative impact on financial performance along with board interlock. These finding is important because Excess board interlock can lead to impact firm performance negatively.

Limitations and Future Directions:

There are some measurement limitations. This study uses ROA as a proxy for financial performance and board diversity is measured through board size. It is suggested that future research may use accounting based as well as market base measures for financial performance. Board diversity is measured through board size future research use demographic variables to measure board diversity. Generalization is the issue of the current study. This study has taken the sample of 93 firms because of time constraint. Therefore, the findings of the study cannot be generalized.

In this study, data is extracted from the published annual reports of financial and non-financial firms listed in Pakistan. Future research may be conducted on comparison amongst non-financial and financial sectors that in which sector more interlocks exist and why.

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