The Moderating Effect of Growth Opportunity on the Relationship between Corporate Governance Toward Key Financial Indicators of the Firms: Evidence from Pakistan

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Abstract

The aim of this research is to investigate corporate governance influence on firm profitability, liquidity and leverage and also investigate the moderating variable could increase the association between independent and dependent variables. In this research the dependent variables which are profitability (ROA), liquidity (CR) and leverage (TD/ TA) and independent variables which are board size, board independence, managerial and foreign ownership. The moderating variable is growth opportunity and the proxy of growth opportunity is MV/BV. In research use quantitative approach and sample of this research is 70 companies listed on KSE-100 index and the data period is 2011-2018 sequentially. To find out the results panel regression with fixed effect is used, performance and position data has taken from financial statements available at company's official website and PSX website.

The study results show that in the first model where the profitability is taken as an dependent variable is revealed that the board size influenced profitability negatively, which is in consistent with the view that the smaller board size contribute more towards the profitability. Board independence has a negative impact with accounting measure of profitability such as “return on asset”, implying that the autonomous directors are not positively contributing. The interaction

term of growth opportunity with BS, BI and FO are also significant at 1% significance level which concludes that growth opportunity moderates the relationship between the BS and profitability, BI and profitability and FO and profitability and further enhances the impact of BS towards profitability, BI towards profitability and FO towards profitability.

In second model where the liquidity is taken as a dependent variable, only the foreign ownership is found to be significant at 1% significance with positive impact of foreign ownership with liquidity, which reveals that higher level of foreign ownerships in firms increase the firm liquidity. The interaction term of growth opportunity with BS, BI and FO are also significant at 1% and 5% significance level which concludes that growth opportunity moderates the relationship between the BS and Liquidity, BI and Liquidity and FO and Liquidity and further enhances the impact of BS towards Liquidity, BI towards Liquidity and FO towards Liquidity.

In third model where the leverage is taken as a dependent variable, only the foreign ownership is found to be significant at 1% significance with negative impact of foreign ownership with leverage, which reveals that higher level of foreign ownerships in firms decreases the firm leverage. The interaction term of growth opportunity with BS, BI and FO are also significant at 1% and 5% significance level which concludes that growth opportunity moderates the relationship between the BS and Leverage, BI and Leverage and FO and Leverage and further enhances the impact of BS towards Leverage, BI towards Leverage and FO towards Leverage.

Keyword: **Growth opportunity, corporate governance, profitability, liquidity, leverage, moderated regression analysis.**

1. INTRODUCTION

1.1 Background

Corporate enactment is an imperative conception that narrates to the approach and method in which economic assets accessible to an association are prudently cast-off to take about the all corporate objective of an institution. This retains the institute in industry plus generates a superior overlook in place of upcoming chances and breaks. In general structure, all nations have their own plan of headings plus rules in their careful portion providing for their social, political and strict basics. Specific take the game plan of laws, some as standards while some are total practices. The application of agency theory under corporate form of organization requires an

organized governing body which not only protects the rights of shareholders but steer the wheels of the business towards right direction. This governing body is board of directors – people appointed by shareholders. The independence of the board is heart of good governance and ultimate prerequisite for sound financial performance and position of entity.

According to pallab kumar biswas (2020) he studied to see impact of corporate governance on stock liquidity and he complete the research and stated that the corporate governance has a positive and significance impact on stock liquidity. It means that if the corporate governance has strong strategies then the companies follow that rules then the companies can increase the company liquidity. According to study of Vishal kumar et al (2019) studied to perceive impact of corporate governance on firm's profitability and working capital and they identified that the corporate governance has positive and significant influence on firm's profitability and also on working capital. According to Twinkle prusty et al (2018) they state that corporate governance (audit commitee and board size) has negative and insignificant impact on firms return on assets. They complete research and stated that the corporate governance has positive and significant impact on firm's profitability Melsa Ararat (2017). They complete research and stated that the corporate governance has positive and significant impact on firm's profitability Ahmed adeshina babatunde et al. (2016).

1.2 Research Problem

Based on the previous research still there are a few inquiries in back those are should have been addressed and that inquiries explained below. The research problems of this study are:

- Does board size, board independence, managerial and foreign proprietorship effect on firm profitability, liquidity and leverage?
- Does the growth opportunity moderate the relationship between board size, boar independence, managerial and foreign proprietorship towards on firm profitability, liquidity and leverage?

1.3 Research Gap

Although various studies has been done seeing the connection b/w the firm performance and corporate governance but combined analysis of performance, liquidity and leverage are not done yet. This study contributes in literature by studying that there is need to study the moderating

effect of growth opportunity on the relationship between corporate governance on firm performance when the leverage and liquidity are introduced. To our best knowledge in Pakistan no joint study has been done yet to check the impact of corporate governance on Profitability, liquidity and leverage.

1.3 Research Objectives

Based on the previous research still there are a few inquiries in back those are should have been addressed and that inquiries will be our research intentions. The inquiries intentions of this study are:

- To analyze board size, board independence, managerial and foreign proprietorship effect on firm profitability, liquidity and leverage?
- To analyze the growth opportunity moderate the relationship between board size, board independence, managerial and foreign proprietorship towards on firm profitability, liquidity and leverage?

1.4 Research Questions

- Does the board size, board independence, managerial ownership and foreign ownership effect on firm profitability, liquidity and leverage?
- Does the growth opportunity moderate the relationship between board size, board independence, managerial ownership and foreign ownership towards on firm profitability, liquidity and leverage?

2. LITERATURE REVIEW

2.1 Corporate Governance and Profitability

According to study of Ibrahim khalifa elmghaames et al (2021) they research on 100 firms listed on London stock exchange and the duration was 2013 to 2018. They perceive influence of corporate governance (board size, board independence and women on the board) on firm's financial performance and they stated that corporate governance has positive and significant impact on firm's financial performance. According to Twinkle prusty et al (2020) research on 73 national stock exchange firms from India and the duration was 2009 to 2016. They perceived influence of board structure and ownership structure index on return on capital employed and

return on assets and they stated that board structure and ownership structure index has positive and significant effect on return on capital employed and return on assets.

Research on 102 firms listed on Indonesian stock exchange They perceived influence of good corporate governance and corporate social responsibility on firms profitability and they stated that good corporate governance and corporate social responsibility has positive and significant effect on firms profitability Mayang maharani (2018). Wu (2000) he suggest that if we have large board size then the additional directors and investors can improve problems of coordination between them but also they can create problem of controlling system. If we have small board, then this is additional operative then large board and small board can control managers and they work for the profitability of the organization.

2.2 Corporate Governance and Liquidity

According to study of Manjit et al. (2019) research on 500 stock exchange listed firms from India and the duration was 2013 to 2017. They perceived influence of corporate governance on stock market liquidity and they stated that corporate governance has positive and significant effect on stock market liquidity. Research on Malaysian stock exchange and the duration was 2009 to 2012. They perceived influence of corporate governance strength on stock market liquidity and they stated that corporate governance strength has positive and significant effect on stock market liquidity Hamdan amer al-jaifi et al (2017).

Mostly suppose by literature that governance has improved the stock market liquidity of firms. To analyzed theoretical foundation, conduct this research and used agency theory (Agency theory means conflict between manager and investor) and theory of entrenchment. These theories are cast-off to justify the affiliation amongst corporate governance plus firm liquidity. Previous studies support that best governance system is more frequent and voluntary disclosure is more accurate. (Ajinkya et al. 2005; Donnelly &Mulcahy, 2008) large investor promote the internal corporate governance and due to this increase the liquidity of stock market this thing makes their exit less costly.

Stock liquidity is improved by less information and fewer agency conflicts. For the long run it's necessary that CG should be efficient so that investor confidence increase and investment inflows stable for creating or build trust relationship between investor and firm it's played a role

of liver it attracting new investor and liquidity of organization improved. If manager and shareholder start to focus on their own interest due to this conflict minor shareholder should be expropriation and their confidence will no more on firm therefore new investors will not be ready to invest in that company.

2.3 Corporate Governance and Leverage

Research on 1207 non-financial firms from Australia and duration was 2001 to 2013. They perceived influence of corporate governance quality on firm's leverage and they stated that corporate governance quality has negative and insignificant effect on firm's leverage Nadarajah sivathaasan et al (2018).

Clayman et al 2012, they explained that if company get high leverage for further investment then the managers inspired from high debt and then the managers use this leverage and firm assets more competently. After that there would be responsibility of the mangers to repay interest and principals to the shareholders.

When we discuss leverage, there is always agency problematic amongst stockholders plus managers in the firms. Agency problem comes when company decides to take leverage for further investment and then agency battle comes between shareholders plus managers. When managers take decision to take debt high then they think about their own interest and then shareholders come in problem because getting high leverage stock returns would be slow down. Who can have explained the alliance between managers those act like an agents and shareholders those act like principal in the company.

2.4 Growth Opportunity Interaction Term

As a moderator the growth opportunity in research, there are very few researchers who research and inspect interlink corporate internal factors and as a moderating variables growth opportunity. Jensen (1986) the researcher Jensen argue that when a company invest the over funding problems and under funding problems appear through the growth opportunities.

Chung and charoenwong (1991) explained that if the company has funding opportunities in the company that means the company can grow and also the company can generate profits. If the company has funding opportunities in the company and the manager of the company can invest

easily then the managers will take benefits from those funding opportunities and also the managers can create wealth maximization for shareholder.

2.5 Theoretical Framework

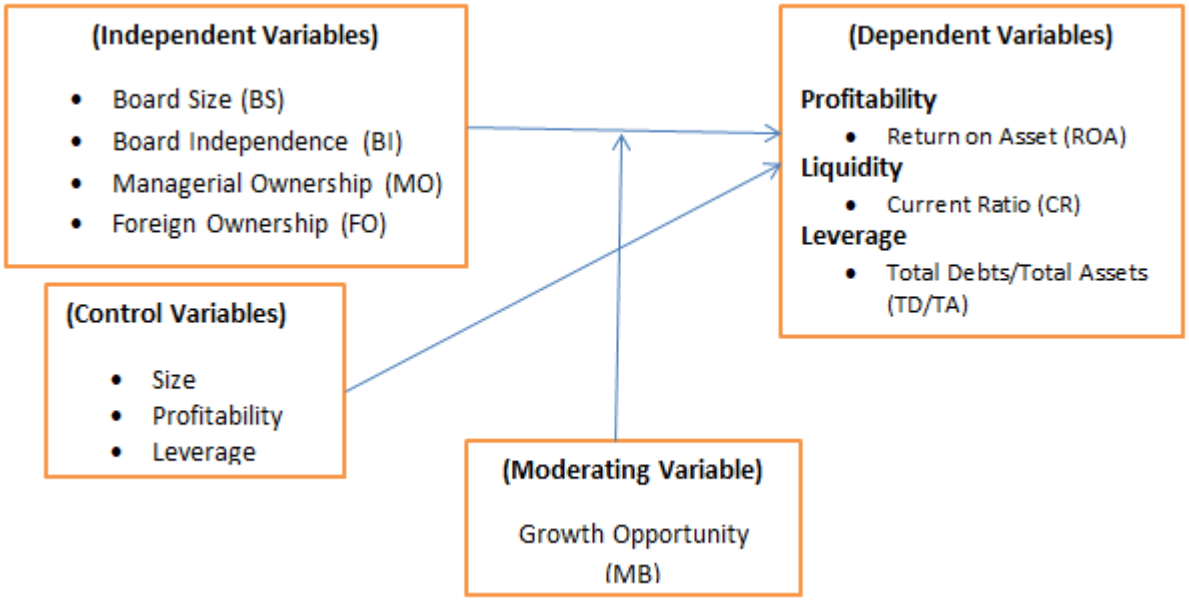

Figure 1: Theoretical Framework

2.6 Hypothesis

H1. Board Size is positively related to profitability.

H2. Board Size is positively related to liquidity.

H3. Board Size is negatively related to leverage.

H4. Board independence is positively related to profitability.

H5. Board independence is positively related to liquidity.

H6. Board independence is negatively related to leverage.

H7. Managerial ownership is positively related to profitability.

H8. Managerial ownership is positively related to liquidity.

H9. Managerial ownership is negatively related to leverage.

H10. Foreign ownership is positively related to profitability.

H11. Foreign ownership is positively related to liquidity.

H12. Foreign ownership is negatively related to leverage.

H13. Growth opportunity positively moderates the relationship between board size and profitability.

H14. Growth opportunity positively moderates the relationship between board size and liquidity.

H15. Growth opportunity negatively moderates the relationship between board size and leverage.

H16. Growth opportunity positively moderates the relationship between board independence and profitability.

H17. Growth opportunity positively moderates the relationship between board independence and liquidity.

H18. Growth opportunity negatively moderates the relationship between board independence and leverage.

H19. Growth opportunity positively moderates the relationship between managerial ownership and profitability.

H20. Growth opportunity positively moderates the relationship between managerial ownership and liquidity.

H21. Growth opportunity negatively moderates the relationship between managerial ownership and leverage.

H22. Growth opportunity positively moderates the relationship foreign ownership and profitability.

H23. Growth opportunity positively moderates the relationship foreign ownership and liquidity.

H24. Growth opportunity negatively moderates the relationship foreign ownership and leverage.

3.6 Regression Equations

1. $$\mathbf{ROA}_{i,t} = \alpha_i + \beta_1 (BDSIZE)_{i,t} + \beta_2 (BDIND)_{i,t} + \beta_3 (MO)_{i,t} + \beta_4 (FO)_{i,t} + \beta_5 (Size)_{i,t} + \beta_6 (Lev)_{i,t} + \beta_7 (GO)_{i,t} + \beta_8 (BDSIZE*GO)_{i,t} + \beta_9 (BDIND*GO)_{i,t} + \beta_{10} (MO*GO)_{i,t} + \beta_{11} (FO*GO)_{i,t} + e_{i,t}$$

2. $\mathbf{CR}_{i,t} = \alpha_i + \beta_1 (BDSIZE)_{i,t} + \beta_2 (BDIND)_{i,t} + \beta_3 (MO)_{i,t} + \beta_4 (FO)_{i,t} + \beta_5 (Size)_{i,t} + \beta_6 (Lev)_{i,t} + \beta_7 (Profit)_{i,t} + \beta_8 (GO)_{i,t} + \beta_9 (BDSIZE*GO)_{i,t} + \beta_{10} (BDIND*GO)_{i,t} + \beta_{11} (MO*GO)_{i,t} + B_{12} (FO*GO)_{i,t} + e_{i,t}$

3. $\mathbf{TD/TA}_{i,t} = \alpha_i + \beta_1 (BDSIZE)_{i,t} + \beta_2 (BDIND)_{i,t} + \beta_3 (MO)_{i,t} + \beta_4 (FO)_{i,t} + \beta_5 (Size)_{i,t} + \beta_6 (Profit)_{i,t} + \beta_7 (GO)_{i,t} + \beta_8 (BDSIZE*GO)_{i,t} + \beta_9 (BDIND*GO)_{i,t} + \beta_{10} (MO*GO)_{i,t} + \beta_{11} (FO*GO)_{i,t} + e_{i,t}$

4. RESEARCH METHODOLOGY

4.1 Sample Selection

We have taken 08 years data from 2011–2018 from KSE-100 index companies for our analyses and we have selected 70 companies from KSE-100 index companies.

4.2 Data Collection

We have used panel regression with fixed effect model to conclude our results. We studied different sites i.e. articles, case studies, newspaper and also other related sites of companies. The sites we used to get data for results i.e. Companies annual reports, world trade organization, state bank of Pakistan.

4.3 Data Analysis Techniques

Data gathered was on time series and also cross-segment, so in this study the panel regression is used for the research. Hausman test is useful to see whether the panel regression is working with fixed or random effects. The after effect of the test is referenced as beneath:

Table 1: Hausman Test

Test of Hausman	**Coefficient**
Chi-square test value	0.7193
P-value	0.00

The p-value of Hausman test is significant at 1% significance level, so the substitute hypothesis of Hausman test is recognized which states that “the panel regression will be run with fixed effects.

4.4 Descriptive Statistics

The empirical result in table 2 contains descriptive statistics which is generally showing beneath. The first table is about descriptive statistics results to see the mean, median, standard deviation etc.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
BS	560	8.83	1.933	7	13
BI	560	.191	.148	0	.556
MO	560	.001	.002	0	.008
FO	560	.158	.254	0	.813
CR	560	1.672	1.101	.55	4.843
LEV	560	.532	.235	.122	.94
SIZE	560	10.232	1.198	7.763	12.515
ROA	560	.087	.075	-.049	.228
GO	560	.692	.561	.058	2.066
BSGO	560	.147	.297	-.489	4.029
BIGO	560	.059	.212	-.07	3.134
MOGO	560	.004	.033	0	.552
FOGO	560	.084	.273	-1.268	4.524

4.4.1 Correlation matrix

From the correlation table no.3, it is depicted that Board size ensure a affirmative plus significant affiliation through board independence, leverage plus size however the board size has destructive plus significant affiliation with foreign ownership, current ratio, return on asset and market to book value. Board Independence is affirmative and significant affiliation with current ration whereas Board Independence is destructive and significant affiliation with foreign ownership.

Managerial Ownership is affirmative and significant affiliation with MV/BV, whereas the Managerial Ownership is destructive and significant affiliation with foreign ownership and size. Foreign Ownership is affirmative plus significant affiliation with CR and ROA whereas the Foreign Ownership is destructive plus significant affiliation with leverage and MB. CR is affirmative and significant connection with ROA and CR is destructive and significant affiliation with leverage and size.

Table 3: Correlation Matrix

Variables	(BS)	(BI)	(MO)	(FO)	(CR)	(LEV)	(SIZE)	(ROA)	(GO)	(BSGO)	(BIGO)	(MOGO)	(FOGO)
BS	1.000												
BI	0.166***	1.000											
MO	0.005	0.036	1.000										
FO	-0.110***	-0.160***	-0.155***	1.000									
CR	-0.206***	0.107**	-0.058	0.146***	1.000								
LEV	0.207***	-0.015	-0.014	-0.108**	-0.646***	1.000							
SIZE	0.382***	0.030	-0.134***	-0.059	-0.168***	0.150***	1.000						
ROA	-0.132***	-0.050	0.027	0.167***	0.396***	-0.447***	-0.006	1.000					
GO	-0.099***	-0.059	0.088**	-0.197***	-0.047	-0.046	0.015	-0.349***	1.000				
BSGO	0.052	0.515***	0.143***	-0.112***	0.075*	-0.015	-0.034	-0.154***	0.478***	1.000			
BIGO	0.089***	0.470***	0.118***	-0.091**	0.095**	0.015	-0.042	-0.078*	0.314***	0.931***	1.000		
MOGO	-0.009	0.064	0.490***	-0.072*	-0.048	0.039	-0.033	-0.093**	0.169***	0.203***	0.140***	1.000	
FOGO	-0.089***	-0.036	-0.080*	0.405***	0.083*	-0.123***	-0.047	0.005	0.237***	0.170***	0.043	-0.032	1.000
****** p<.01, ** p<.05, * p<.1***													

The VIF table 4 calculated is as follows, the formula of VIF = 1 / 1 – R^2 and through VIF value we can know about the issue of multi-co linearity between independent variables. The rule is that VIF value should less than 10. If value comes greater than 10, then those variables creates an issue of multi-co linearity. All the independent variables are found to be less than 10 then it means independent variables have insignificant relation with one another. Therefore, all the independent variables don't report the issue of multi-co linearity.

VIF (BS, BI) = **1.03**, VIF (BS, MO) = **1.00**, VIF (BS, FO) = **1.01**, VIF (BS, CR) = **1.04**, VIF (BS, LEV) = **1.04,** VIF (BS, SIZE) = **1.17** , VIF (BS, ROA) = **1.02** , VIF (BS, MB) = **1.01** , VIF (BS, BSGO) = **1.00** , VIF (BS, BIGO) = **1.01** , VIF (BS, MOGO) = **1.00,** VIF (BS, FOGO) = **1.01** and etc. are initiate to be less than 10 and it means that independent variables have insignificant relation with one another. Therefore, all the independent variables don't report the issue of multi-co linearity.

4.4.3 Variation Inflation Index (VIF)

Table 4: Variation Inflation Index (VIF)

Variables	**(BS)**	**(BI)**	**(MO)**	**(FO)**	**(CR)**	**(LEV)**	**(SIZE)**	**(ROA)**	**(GO)**	**(BSGO)**	**(BIGO)**	**(MOGO)**	**(FOGO)**
BS	-												
BI	1.03												
MO	1.00	1.00											
FO	1.01	1.03	1.02										
CR	1.04	1.01	1.00	1.02									
LEV	1.04	1.00	1.00	1.01	1.72								
SIZE	1.17	1.00	1.02	1.00	1.03	1.02							
ROA	1.02	1.00	1.00	1.03	1.19	1.25	1.00						
GO	1.01	1.00	1.01	1.04	1.00	1.00	1.00	1.14					
BSGO	1.00	1.36	1.02	1.01	1.01	1.00	1.00	1.02	1.30				
BIGO	1.01	1.28	1.01	1.01	1.01	1.00	1.00	1.01	1.11	7.51			
MOGO	1.00	1.00	1.32	1.01	1.00	1.00	1.00	1.01	1.03	1.04	1.02		
FOGO	1.01	1.00	1.01	1.20	1.01	1.02	1.00	1.00	1.06	1.03	1.00	1.00	-

5. RESULTS AND DISSCUSSION

5.1 Panel regression results with fixed effect first model

Table 5 all variables of coefficient is exhibit in this table and to found the results the method applied is panel regression with fixed effect. The dependent variable is ROA and BS, BI, MO, and FO are independent variables. To find out the panel regression with fixed effect the control variables are SIZE and LEV and also used moderating variable growth opportunity (MB). To explain the results the statistical significance level will be at 10%, 5% and 1% and the statistical significance level showed in the table *, **, *** respectively.

Table 5: Panel Regression First Model Results

ROA	Coef.	St.Err.	t-value	p-value	Sig
BS	-.006	.002	-2.47	.014	**
BI	-.046	.023	-2.00	.046	**
MO	.18	1.654	0.11	.913	
FO	-.021	.019	-1.11	.267	
SIZE	.011	.006	2.06	.04	**
LEV	-.166	.018	-9.15	0	***
GO	-.034	.006	-5.64	0	***
BSGO	-.069	.027	-2.60	.01	***
BIGO	.111	.031	3.59	0	***
MOGO	.06	.07	0.85	.393	
FOGO	.017	.01	1.82	.07	*
Constant	.145	.059	2.44	.015	**

Mean dependent var	0.087	**SD dependent var**	0.075
R-squared	0.284	**Number of obs**	560.000
F-test	17.313	**Prob > F**	0.000
Akaike crit. (AIC)	-2068.069	**Bayesian crit. (BIC)**	-2016.134
*** *p<.01*, ** *p<.05*, * *p<.1*			

In table 5 panel regression with fixed effect results is shown. R squared value is 0.284 which mean that 28.4% of deviation is being described by I.V in model. F-test is used in regression to compare the regression statistical model that has been used in research data and f- test is castoff to analyze where the model is significant or not. F-test is castoff to see the evidence of co-

integration among the dependent and independent variables. F-test value is 17.313 p- value is 0.00, hence concluded that there is an evidence of co-integration.

In regression results the BS and BI is destructive and significant consequence on ROA that's means the null hypothesis is rejected. The BS and BI coefficient is -.006 and -.046 respectively. The both results proved that the small board size makes decision better and also increase the profitability of the firm and a greater board size creates conflicts and makes coordination problems and take decision at the interest of their own benefits which ultimately reduces the profitability and non-executive directors are not positively contributing in the economic value of the firm. The managerial ownership is affirmative plus insignificant consequence on ROA that's means accept null hypothesis. The foreign ownership is destructive plus insignificant consequence on ROA that's means accept null hypothesis. The control variable SIZE is positive plus significant result on ROA and also LEV has a negative and significant outcome on ROA.

Now we explain how moderating variable will effect on firm profitability and also see the moderating variable with CG outcome on profitability. In first regression equation the moderating variable growth opportunity (GO) and BS*GO is destructive and significant outcome on ROA, both are significant at 5% significance level and the results accept alternative hypothesis. The BI and GO with the interconnection phrase of BI*GO and the interconnection phrase of FO*GO is constructive and significant outcome on ROA including the C.V. The BI*GO means BI with interaction term GO is significant on 5% level of significant and The FO*GO means FO with interaction term GO is significant on 10% level of significant and the outcomes accept alternative hypothesis that's means in first regression equation the moderating variable GO has a moderate effect and also significantly increase the relationship BI and FO into firm profitability. The MO and GO with the interconnection phrase of MO*GO is affirmative and insignificant consequence on ROA including the control variables. The p- value is .393 insignificant and the results accept null hypotheses. That's means in first regression equation the moderating variable GO is not able to moderate and also significantly increase the relationship MO into firm profitability.

5.2 Panel regression results with fixed effect second model

Table 6 all variables of coefficient is exhibit in this table and to found the results the method applied is panel regression with fixed effect. The dependent variable is CR and BS, BI, MO, and FO are independent variables. To find out the panel regression with fixed effect the control variables are SIZE, ROA and LEV and also used moderating variable growth opportunity (MBTo explain the results the statistical significance level will be at 10%, 5% and 1% and the statistical significance level showed in the table *, **, *** respectively.

Table 6: Panel Regression Model two Results

CR	**Coef.**	**St.Err.**	**t-value**	**p-value**	**Sig**
BS	-0.045	0.033	-1.37	0.171	
BI	-0.12	0.336	-0.36	0.722	
MO	-18.857	23.872	-0.79	0.43	
FO	0.746	0.27	2.77	0.006	***
ROA	2.9	0.609	4.77	0	***
SIZE	0.163	0.08	2.04	0.042	**
LEV	-0.191	0.426	-0.15	0.043	**
GO	-0.174	0.09	-1.93	0.054	*
BSGO	1.333	0.382	3.49	0.001	***
BIGO	-1.425	0.45	-3.17	0.002	***
MOGO	0.046	1.013	0.05	0.964	
FOGO	-0.278	0.138	-2.02	0.044	**
Constant	0.094	0.851	0.11	0.912	

Mean dependent var	0.532	**SD dependent var**	0.235
R-squared	0.191	**Number of obs**	560.000
F-test	10.265	**Prob > F**	0.000
Akaike crit. (AIC)	-1124.908	**Bayesian crit. (BIC)**	-1072.973
*** *p<.01, ** p<.05, * p<.1*			

In table 6 panel regression with fixed effect results is shown. . R squared value is 0.191 which mean that 19.1% of deviation is being described by I.V in model. F-test is castoff in regression to compare the regression statistical model that has been used in research data and f- test is castoff to analyze where the model is significant or not. F-test is castoff to see the evidence of co-

integration among the dependent and independent variables. F-test value is 10.265 p- value is 0.00, hence concluded that there is an evidence of co-integration.

In regression results the BS, BI and MO has a negative and insignificant effect on liquidity that's means the null hypothesis is accepted and alternative hypotheses is rejected. The BS, BI and MO coefficient is -.045, -.12 & -18.857 respectively. Kee H.Chung, John Elder and Jang-Chul Kim (2010). Their study was done to check out the relationship between CG and liquidity. They found results that improved CG have narrow extents. Liquidity and CG is destructive affiliation. The FO is constructive and significant outcome on liquidity that's means there alternative hypotheses is accepted null hypothesis is rejected. The FO is significant at 10% level. They investigate to look over the alliance among stock liquidity plus CG value and they give verification that there is a useful alliance between stock liquidity and corporate governance quality (Ali et al 2016). The ROA and SIZE are control variables is affirmative plus significant outcome on liquidity at 5% level.

Now we explain how moderating variable will effect on firm liquidity and also see the moderating variable with corporate governance effect on firm liquidity. In second regression equation the moderating variable growth opportunity (GO) and the BI and GO with the interconnection phrase of BI*GO and the interconnection phrase of FO*GO is destructive and significant consequence on liquidity including the C.V. The BI*GO means BI with interaction term GO is significant at 5% and The FO*GO means FO with interaction term GO is significant at 10% and the results accept alternative hypothesis that's means in second regression equation the moderating variable GO has a moderate effect and also significantly increase the relationship BI and FO into firm liquidity. The BS and GO with the interconnection phrase of BS*GO is affirmative and significant consequence on liquidity including the control variables. The p- value is .001 and coefficient value is 1.333 significant and the results reject null hypotheses. That's means in second regression equation the moderating variable GO is able to moderate and also significantly increase the relationship BS into firm liquidity. . The MO and GO with the interconnection phrase of MO*GO has a positive and insignificant effect on liquidity including the control variables. The p- value is .964 insignificant and the results accept null hypotheses. That's means in second regression equation the moderating variable GO is not capable to moderate and also not significantly increase the relationship MO into firm liquidity.

5.3 Panel regression results with fixed effect third model

Table 7 all variables of coefficient is exhibit in this table and to found the results the method applied is panel regression with fixed effect. The dependent variable is LEV and BS, BI, MO, and FO are independent variables. To find out the panel regression with fixed effect the control variables are SIZE and ROA and also used moderating variable growth opportunity (MB). To explain the results the statistical significance level will be at 10%, 5% and 1% and the statistical significance level showed in the table *, **, *** respectively.

Table 7: Panel Regression Model Three Results

LEV	**Coef.**	**St.Err.**	**t-value**	**p-value**	**Sig**
BS	.002	.005	0.43	.666	
BI	.016	.054	0.30	.764	
MO	2.616	3.838	0.68	.496	
FO	-.091	.043	-2.09	.037	**
ROA	-.895	.098	-9.15	0	***
SIZE	.008	.013	0.65	.513	
GO	.016	.014	1.07	.283	
BSGO	-.186	.061	-3.03	.003	***
BIGO	.224	.072	3.10	.002	***
MOGO	.193	.163	1.18	.238	
FOGO	.049	.022	2.21	.028	**
Constant	.511	.137	3.73	0	***

Mean dependent var	0.532	**SD dependent var**	0.235
R-squared	0.191	**Number of obs**	560.000
F-test	10.265	**Prob > F**	0.000
Akaike crit. (AIC)	-1124.908	**Bayesian crit. (BIC)**	-1072.973
*** *p<.01*, ** *p<.05*, * *p<.1*			

In table 7 panel regression with fixed effect results is shown. R squared value is 0.191 which mean that 19.1% of deviation is being described by I.V in model. F-test is used in regression to compare the regression statistical model that has been used in research data and f- test is castoff to analyze where the model is significant or not. F-test is castoff to see the evidence of co-

integration among the dependent and independent variables. F-test value is 10.265 p- value is 0.00, hence concluded that there is an evidence of co-integration.

In regression results the BS, BI and MO has a positive and insignificant effect on LEV that's means the null hypothesis is accepted and alternative hypotheses is rejected. The BS, BI and MO coefficient is .002, .016 & 2.616 respectively. The alliance between board independent and leverage ratio and they show that an affirmative plus also insignificant alliance among them by (Kyereboah-Coleman and Biekpe 2006). Vakilifard et al. (2011) they done study to look over the alliance among board independent plus capital structure and they show the results that there is no alliance between board independent and capital structure. The FO takes a destructive plus significant consequence on LEV that's means an alternative hypothesis is accepted, that's means the foreign ownership support to take leverage for company. The FO is significant at 5% level. The ROA is control variable is destructive plus significant consequence on LEV. The SIZE is control variable is an affirmative plus insignificant consequence on LEV.

Now we explain how moderating variable will effect on firm leverage and also see the moderating variable with corporate governance effect on firm leverage. In third regression equation the moderating variable growth opportunity (GO) is an affirmative plus insignificant consequence on leverage. The BI and GO with the interconnection phrase of BI*GO and the interconnection phrase of FO*GO is an affirmative plus significant consequence on leverage including the control variables. The BI*GO means BI with interaction term GO is significant at 5% and The FO*GO means FO with interaction term GO is significant at 10% and the results accept alternative hypothesis that's means in third regression equation the moderating variable GO has a moderate effect and also significantly increase the relationship BI and FO into firm leverage. The MO and GO with the interconnection phrase of MO*GO has a positive and insignificant effect on leverage including the control variables. The p- value is .238 insignificant and the results accept null hypotheses. That's means in third regression equation the moderating variable GO is not capable to restrain and also not significantly increase the relationship MO into firm leverage. The BS and GO with the interconnection phrase of BS*GO is a destructive plus significant consequence on leverage including the control variables. The p- value is .003 and coefficient value is -.186 significant and the results reject null hypotheses. That's means in third

regression equation the moderating variable GO is able to moderate and also significantly increase the relationship BS into firm leverage.

6. CONCLUSION AND IMPLICATIONS

6.1 Overview of Results

In the first model where the profitability is taken as an dependent variable is revealed that the board size influenced profitability negatively, which is in consistent with the view that the smaller board size contribute more towards the profitability because according to the agency theory as the number of board increases the board member interest toward the shareholders objectives decrease due to the increase in the interest of their personal benefits which ultimately decrease the profitability.

Board independence has a negative impact with accounting measure of profitability such as "return on asset", implying that the outside directors are not positively contributing in the economic value of the firm (Rashid, De Zoysa, Lodh & Rudkin, 2010; Rashid, De Zoysa, Lodh & Rudkin, 2012), the results are consistent with the study in emerging country like Bangladesh that independent directors play a good advisory role rather than contributing in the profitability of the firm. The interaction term of growth opportunity with BS, BI and FO are significant which concludes that growth opportunity is able to moderate and significantly enhance the effect of BS, BI and FO toward profitability.

In second model, where the liquidity is taken as a dependent variable, only the foreign ownership is found to be significant at 1 % significance with positive impact of foreign ownership with liquidity, which reveals that higher level of foreign ownerships in firms increase the firm liquidity. The interaction term of growth opportunity with BS, BI and FO are significant which concludes that growth opportunity is able to moderate and significantly enhance the effect of BS, BI and FO toward Liquidity.

In third model, where the leverage is taken as a dependent variable, only the foreign ownership is found to be significant at 1 % significance with negative impact of foreign ownership with leverage, which reveals that higher level of foreign ownerships in firms decreases the firm leverage. The interaction term of growth opportunity with BS, BI and FO are significant which

concludes that growth opportunity is able to moderate and significantly enhance the effect of BS, BI and FO toward Leverage.

6.2 Implications of Research Study

The outcomes of this revision need many suggestions for the various shareholders, researcher, and most importantly to management of the firm to defend the interest of shareholders. The study implied that the smaller board size increases the profitability, because in emerging countries like Pakistan a greater board size creates conflicts and make coordination problems and take decision at the interest of their own benefits which ultimately reduces the profitability, so, there should be a limit on the upper side of board at the reasonable level.

The study implied that the outside directors are not positively contributing in the economic value of the firms. The study in emerging country like Bangladesh is that independent directors play a good advisory role rather than contributing in the profitability of the firm.

6.3 Guidelines for Future Research

The findings raises the question that why board independence having a negative effect on the profitability, In our assessment, why autonomous directors did not adding economic value, why autonomous directors playing a consultative role, so in our assessment there is a need to study why autonomous directors playing consultative role rather than providing operative assistances to firms.

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