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Role of Corporate Governance to Mitigate the Idiosyncratic Risk in Non-Financial Sector of Pakistan

Sadeen Ghafoor[1], Muhammad Zulfiqar[2]*, Muhammad Kashif Khurshid[3]
[1]Government College University Faisalabad, Pakistan; [2]Dongbei University of Finance and Economics, Dalian China; [3]National University of Modern Languages, Islamabad, Pakistan
*E-mail: muhammadzulfiqar796@yahoo.com

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Abstract

The primary focus of this study is on the relationship between idiosyncratic risk and corporate governance. A secondary focus of the study is on the relationship between firm performance and corporate governance. Then, a potential corporate governance-to-idiosyncratic volatility-to-firm performance link is considered. In this study, corporate governance is approached in the context of internal governance control, based on board structure, composition, ownership, ownership structure, audit committee structure and quality. These are the essential elements of corporate governance, and relevant for studies pertaining to a market with internal-governance characteristics, such as the Pakistan market. The market of Pakistan provides a unique study that is based on market with its distinct characteristics. It is the market with internal-governance-control characteristics that operates in an internal-governance-control system. Therefore, this study has applied data draw form firms listed under the aforementioned of the Pakistan Securities Exchange (PSE). The data used in this study are taken from the PSE, the 104 listed firms for the year's 2004-2016. The primary conclusion of the study is that there is a clear relationship between idiosyncratic risk and corporate governance. Specifically, this study finds consistent and significant relationship between idiosyncratic volatility and a number of firm-level corporate governance variables. The variables include among others, CEO duality, firm size and leverage. Thus, based on these conclusions, a link between corporate governance, idiosyncratic volatility, and firm performance is implied. The results show that the firms with batter corporate governance mechanisms tend to have a lower idiosyncratic risk. The current studies differ from previous studies on idiosyncratic risk, and also previous corporate governance studies, in its focus on a relationship between idiosyncratic and corporate governance in the context of internal governance controls, and the significant finding and conclusion. Hence, this study adds a valuable contribution to the knowledge and literature on the relationship between idiosyncratic risk and corporate governance, and also to the streams of literature on both idiosyncratic risk, and corporate governance.

Keywords: Idiosyncratic Risk, Corporate Governance, Dynamic Penal Regression, Firm Performance, Ownership Structure, Board Structure, Audit Committee Structure

Introduction

The risk is a part of each one human life. From the moment we get up in the morning, drive or take open transportation to find the opportunity to class or to work until the point that the moment that we get over into our beds (and possibly a brief timeframe later), we are displayed to threats of different degrees. What makes the study of risk fascinating is that while some of this risk bearing may not be completely voluntary, we seek out some risks on our own (speeding on the highways or gambling, for instance) and enjoy them. While some of these risks may have all the earmarks of be-

ing immaterial, others have a tremendous impact on the way, we encounter our lives. On a fair and excellent thought note, it can be fought that every genuine advance in human improvement, from the mountain man's development of mechanical assemblies to quality treatment, has been made possible in light of the way that some individual was anxious to go for broke and challenge the norm. In this part, we start our investigation of risk by noticing its essence through history and after that take a gander from an optimistic standpoint to characterize what we mean by risk.

"The probability that an actual return on an investment will be lower than the expected return. The chance that an exact yield on a purchase will be below the proposed interest. Financial risk is divided into the successive categories: Basic risk, Political risk, Capital risk, Default risk, Sovereign risk, Economic risk, Interest rate risk, Liquidity risk, Country risk, Exchange rate risk, Payment arrangement risk, Delivery risk, Settlement risk, Refinancing risk, Re-Contribution risk, and underwriting risk, Operations risk." (Smart, Gitman, & Megginson, 2007).

There are major two types of risk. Systematic risk and unsystematic risk. Systematic risk is uncontrollable by an organization because it is macro in nature.

"The other name of systematic risk is "Market Risk" or "Un-diversifiable Risk," is the uncertainty natural to the whole market or whole market segment. And referred to as volatility, systematic risk exists of the everyday change in a stock's price." (Smart, Gitman, & Megginson, 2007).

Unsystematic risk is controllable by an organization as it has nature of micro level.

"Unsystematic risk it is also called "Specific Risk" "Diversifiable Risk" or "Residual Risk," can be defined as "It is can kind of uncertainty which exists with the industry or company when anybody invests in". It can be minimized through diversification." (Gitman, & Megginson, 2007).

The definition of idiosyncratic risk can be defined by (Lo & Wang, 2008);

"Idiosyncratic risk, also indicate to as unsystematic risk, is the risk that is endemic to an appropriate asset such as stock and not an entire investment portfolio. Idiosyncratic risk can be reduced throughout diversification in an investment portfolio."

Corporate governance elaborates as;

"Corporate governance is the structure of regulation, processes, and measure by which a company is controlled and directed. Corporate governance basically engages in balancing the benefit of an organization many stakeholders, financiers, like shareholders, consumers, suppliers, management, government and the community" by (Shailer, 2004).

Background of Study

Research on CG has gotten extensive consideration in the previous decade or so because of the noteworthy capacity of CG in improving the organizations' performance. Research has examined the effect of different CG measures have been on firm execution and firm esteem. CG measures similar to board structure, pay structure, and possession structure are dictated by each other, and by factors, for example, chance, money streams, firms' size and controls and so forth. These factors likewise unequivocally impact a company's performance (Jensen & Meckling, 1976).

BASEL III proposed to fortify CG to keep the risk happening from the related to the financial industry. Furthermore, past investigations likewise show that CG fills in as a type of a system, protect minority investors and stakeholders, and upgrade the wealth of investors. Lin, et al. (2010) determined that through the outline of the CG instrument could diminish the agency problem and reduction idiosyncratic risk. Firms with better CG systems have less agency problem. The idiosyncratic risk of the firm and capital expenses would be decreased, along these lines improving corporate performance and wealth of shareholder. Henceforth, if financial industry related foundations

set up better CG systems can diminish the risk to enhance the financial industry condition and to maintain a strategic distance from the negligence of the financial industry.

Notwithstanding, the written works with respect to the impacts of CG quality on the risk of financial related institutions is a need. Besides, in the wake of investigating the writing, various examinations have concentrated on investigating the connection between incomplete CG systems and firm performance. Scarcely any examinations have clarified the connection between CG and risk. Along these lines, to make up the crevice in the written works, this investigation gives coordinate observational confirmations of the impacts of CG quality on risk. This paper takes after Lin et al. (2010) to utilize idiosyncratic risk as the intermediary for the level of risk in the financial industry. The idiosyncratic risk speaks to the risk interface with how the financial organizations work their own business and system.

In this examination, the financial holding industry, managing a banking industry, and the securities industry in Taiwan was the do research subjects. Empirical evidence was utilized to dissect the connection between financial CG instruments and idiosyncratic risk. Flannery and Hankins (2013) demonstrated that dynamic penal data regression has turned out to be progressively crucial in the corporate finance field. What's more, if clarified variables of slack periods are incorporated in the independent variable, dynamic penal data regression must be utilized to maintain a strategic distance from one-sided parameter estimate. Hence, this paper adjusted the empirical model by Lin et al. (2010) and utilized dynamic penal data regression in this investigation. This examination also referred to Arellano and Bond (1991) and directed the generalized method of moments (GMM) regression to estimate the regression parameters. Besides, the Sargan test was utilized to look at the adequacy of the instrumental variables received by the dynamic penal data regression.

Corporate governance covers many aspects including issues to do in an organization charter, legal framework, distribution of ownership right, or the right of financial and non-financial stakeholder. It is a structured method of company policies, controls, procedures, and compliances that are put in place for the protection of shareholder, furthermore for the prevention and resolution of conflicts of interest.

Corporate governance is concerned with the security of the company and its shareholder, and ultimately the entire stakeholder (Denis & McConnell, 2003; Donaldson, 1990; Shleifer & Vishny, 1997; Turnbull, 1997 & 2002). Also from a purefinance perspective, corporate governance attempts to given a safe environment, by which shareholder and other financial stakeholders can be also confident of receiving a return on investment (Shleifer & Vishny, 1997).

The relationship between idiosyncratic risk and CG is the primary focus of this study. However, the current study does not focus on the information content of idiosyncratic risk establish by Ferreira and Laux (2007), nor governance policy on anti-takeover provisions. The current study, instead, examines the relationship between idiosyncratic risk and corporate governance, in terms of idiosyncratic returns volatility and corporate governance in the context of internal governance controls. The study internal governance controls based on board size, ownership contraction, board meeting, audit committee meeting, board independent, institutional ownership, CEO duality and audit committee independence is appropriate for a market with internal governance control characteristics such as the Pakistan market. Therefore, the relationship between idiosyncratic risk and corporate governance in the context of a market with internal governance control characteristics is the primary focus of the study.

The literature mainly part concentrates on investigating the impacts of the CG system on operation performance or conceptually explains the impact of parts of the CG system on idiosyncratic risk. These examinations have neglected to look at the impacts of the whole CG mechanism on idiosyncratic risk. Just Lin et al. (2010) utilized general industry as the exploration subject and exhaus-

tively centered on the impact of internal and external CG mechanism idiosyncratic risk. In any case, they didn't study in the financial industry. Since the financial sector is an established industry and is firmly identified with people in general, a firm should have a solid CG mechanism. We led a complete examination to decide how the CG mechanism and idiosyncratic risk. This investigation can fill in as a source of perspective for government agencies and financially related organizations in advancing CG with the goal that the embodiment of CG can be actualized to keep up shareholders interest. In this way, corporate associations and operations can grow steadily.

Theoretical View

Agency Theory

The agency theory is a supposition that clarifies the connection amongst principals and agents in the business. The principal-agent relationship is essentially a separation of ownership and control, between the principal (shareholder/owner) and the agent (management). This potentially problematic relationship exists when an agent is appointed to act on behalf of the principle (Jensen & Meckling, 1976; Ross, 1973).

Therefore, the agency problem is a serious problem for corporations that must be addressed and controlled. The fundamental aim of corporate governance is to ensure that managers put the interests of the firm and its shareholders before their own, and to help ensure that all financial stakeholders get a return on their financial investments (Fama & Jensen, 1883a; Fama & Jensen, 1883b; Jensen & Mackling, 1976; Ross, 1973; Shleifer & Vishny, 1997).

Stewardship Theory

Stewardship theory is a theory that manger, left all own, will, in reality, go about as capable stewards of the benefits they control.

The theory behind the stewardship model is that firm performance and the value will be maximised when managersare empowered with trust, authority,andresponsibility, and have a shared vision for the firm's success (Davis, Schoorman & Donaldson, 1997; Donaldson & Davis, 1991; Haniffa & Cook, 2002; Keasey & Wright,1997). Good corporate governance fosters stewardship, and firm an appropriate balance between control and motivation (Keasey & Wright, 1997).

Research Questions

Is there a relationship between idiosyncratic risk and corporate governance in a market with internal-governance-control characteristics?

Is there a connection between idiosyncratic risk and board meeting?

Is there an association between idiosyncratic risk and Institutional ownership?

Is there a bond between idiosyncratic risk and board size?

Is there a correlation between idiosyncratic risk and CEO Duality?

Is there a correlation between idiosyncratic risk and audit committee meeting?

Is there a connection between idiosyncratic risk and audit committee independence?

Is there a connection between idiosyncratic risk and concentration ownership?

Research Objectives

To investigate the relationship between corporate governance and idiosyncratic risk.

To examine the impact of board size and idiosyncratic risk.

To explore the effect of audit committee meeting and idiosyncratic risk.

To study the impact of audit committee independence and idiosyncratic risk.

To explore the association among of board meeting and idiosyncratic risk.

To investigate the relationship among ownership concentration and idiosyncratic risk.
To explore the involvement between CEO Duality and idiosyncratic risk.
To examine the impact of board independence and idiosyncratic risk.
To study the impact of institutional ownership and idiosyncratic risk.

The aim of the Study

To date, very little work has been dedicated to the study of an association between idiosyncratic risk and corporate governance. According to my knowledge, the correlation involving idiosyncratic risk and corporate governance has not researched yet, in the context of a market with internal-governance-control characteristics, such as the Pakistani market. Therefore, the secondary aim of this study is to review this relationship in this context.

In this process, the secondary aim of this study is to explore this relationship between idiosyncratic volatility and corporate governance, and also organization performance and CG. Then the study endeavors to explore a potential link between corporate governance, idiosyncratic volatility, and organization performance. Thus, this study aims to contribute, to the insight and understanding of the relationship between idiosyncratic risk and corporate governance for future corporate finance research and modeling.

Literature review

Empirical Literature Review

The literature reveals that idiosyncratic risk is an important factor impacting on firms and market, equity return, firm value and performance (Draw et al. 2004; Draw et al. 2005; Fu, 2009; Goyal & Santa-Clara, 2003; Guo & Savickas, 2008; Malkiel & Xu, 1997; Miller et al. 2002). However for the market to develop and maintain optimal efficiency and value there also needs to be an effective corporate governance system in place. Hence, an important facet of idiosyncratic risk is the relationship between idiosyncratic risk and CG.

A review of the literature reveals a sparseness of studies in this important area, particularly so for a well-functioning, organized and efficient market, such as the Pakistani market, which operates in an internal-governance controlled system. Therefore there is a need for research into the association involving idiosyncratic risk and corporate governance in this context. This relationship is the primary focus of the study.

Most of the writing investigates just the connection between halfway CG components and risk. With respect to CG components, empirical investigations have demonstrated that strong CG could minimums the capital expenses of firms; however, they neglected to clarify the connection between CG and the idiosyncratic risk of capital cost. Himmelberg et al. (1999) expressed that when managers had high shareholding proportion idiosyncratic risk was decreased. As to external governance system, Jin and Myers (2006) directed an empirical investigation from a national point of view. They found that organizations having less information transparency showed higher idiosyncratic risk. Be that as it may, they didn't research the nature of firm-level governance and its consequences for idiosyncratic risk. Additionally, Gasper and Messa (2006) utilized information got from CRSP Compustat to examine the impacts of product market competition on idiosyncratic risk. The investigation demonstrated that profoundly competitive product market displayed expanded idiosyncratic risk. Ferreira and Laux (2007) investigated the impacts of the market for corporate control on idiosyncratic risk. The outcomes showed that organizations that had various hostile to takeover arrangements had a low idiosyncratic risk. Dissimilar to past investigations, Lin et al. (2010) inspected the impacts that far-reaching CG, which included an internal and external system, has on idiosyncratic risk. The outcomes showed that when the shareholding proportion by external block holders,

proportion of independent director and administrators on board, and shareholding proportion by directors were high, and when information was gotten in a timely way, at that point idiosyncratic risk was decreased. As it were, enhanced internal CG components successfully minimums idiosyncratic risk. Lawful regulation and item product market competitiveness have no generous impacts on idiosyncratic risk, along these lines showing that external CG systems can't minimums idiosyncratic risk.

Evidence of Pakistan

Alam and shah (2013) explore the relationship among CG and firm risk on a sample of 106 financial PSE listed firms over time of 6 years (2015-2010). They investigate that the negative relationship between firm risk and ownership structure, and CEO duality has a positive impact on the fire risk.

Javed and Iqbal (2007) analyzed the cross-sectional association involved corporate governance and organization value of Pakistan stock. They have analyzed the relationship between the firm value calculated through Tobin's Q and (CGI) corporate governance index. They analyzed that the corporate governance plays a great role in Pakistan, and all elements of corporate governanceare not important in Pakistan market.

Methodology

In this part present the research methodology, including the research question, data, and variables used in the study. The chapter provides a review of the methods and approaches found in the literature and methods relevant to this study. The chapter discusses the focus of the study, the theoretical motivation, aims of the study, and expected findings. The data selection, and identification, and a description of the variables are also contained in this chapter.

This study is motivated by relevant aspect of corporate governance theory, and aspect of theory pertaining to idiosyncratic risk. The study is also motivated by the findings of Ferreira and Laux (2007) of an association involved idiosyncratic risk and corporate in us listed market. Also, the research is motivated by the sparseness of research in this important area, and the challenge this proses to test this finding in a market with internal-governance-control characteristics, such as the Pakistan market.

Data

Non-financial related establishments issued in the PSE (Pakistan Stock Exchange) were enrolled as studies focus, including independent firms listed of Pakistan Stock Exchange. Research information incorporated the Pakistan stock record, firm stock prices, and non-financial reports. All data collected from the Pakistan stock Exchange and Market Observation Post System in light of open issued recorded.

The data is collected by the financial statement of non- financial sector listed in Pakistan stock exchange under SECP, (Securities Exchange Commission of Pakistan) based on the 12th year's annual report of each company from 2003 to 2015.

The chosen index for our beta-calculation was PSE index, Pakistan stock price. This index contains all the stocks of the non-financial sector on PSE and therefore an appropriate measurement for beta calculation.

Measurement of idiosyncratic risk

This investigation takes after the immediate disintegration technique by Malkiel and Xu (2003) to the estimation of idiosyncratic risk. Moreover, by establishing up the market models, we evaluated the volatility arrangement of idiosyncratic and systemic risk. To determine the heteroscedasticity and heavy-tailed distribution dissemination designs worry that the succession of profits had

while assessing idiosyncratic risk, we utilized a GARCH model to change the immediate decay strategy by (Malkiel& Xu 2003).

Yet, Volatility is time shifting and shows an asymmetric impact. Subsequently, a second technique to determine the idiosyncratic risk is a dynamic model like EGARCH (Exponential Generalized Autoregressive Conditional Heteroscedasticity) keeping in mind the end goal to catch time variety. The EGARCH strategy is more reasonable than both ARCH and GARCH techniques, as it allows for anasymmetric reaction of volatility to stock returns. Moreover, dissimilar to GARCH, the EGARCH display, determined in logarithms, does not force the nation-negativity imperatives on parameters. The subsequent stage is to examine the Autoregressive Conditionally Heteroscedastic (ARCH) models that will likewise be utilized as a part of the displaying of Idiosyncratic Volatility in this examination.

Table 1. Measurement of variables

Sr. No	Symbol	Variables	Measurement
1	*BS*	Board members	Number of inside and outside directors on the board (VO &PHAN, 2013)
2	*DUL*	*CEO Duality*	Coded "1" if Chairman also holds the position of CEO and "0" otherwise (VO &PHAN, 2013)
3	NED	Board independence	Number of non-executive directors on the board (VO &PHAN, 2013)
4	BM	Board meetings	Board meetings, number of board meetings held during the fiscal year (Juhmani, 2017)
5	BO	Board ownership	The percentage of total shares on the issue held by employees, or by those with a substantial position in a company that provides significant voting power at an annual general meeting (Morck et al. 1998)
6	ISH	Institutional ownership	Log of institutional ownership (Ahmad & Jusoh, 2014)
7	OC	Ownership concentration	Concentration measures refer to holdings of largest block holder ((Earle et al. 2005)
8	ACI	Audit committee independence	It is the ratio between non-executive directors in the audit committee and the total number of directors in the audit committee.(Alam & Shah, 2013)
9	ACM	Audit committee meeting	Audit committee meetings, number of audit committee meetings held during the fiscal year (Juhmani, 2017)
10	AQ	Audit quality	Coded "1" if audit quality measure and "0" otherwise (Juhmani, 2017)
11	*LVG*	Financial leverage	The ratio of total debt divided by equity (VO & PHAN, 2013)
12	*FS*	Firm size	Natural logarithm of the book value of total assets (VO & PHAN, 2013)

Estimated Equation

$$\mathrm{Ido}_{it} = \alpha + \beta dul_{it} + \beta bo_{it} + \beta ish_{it} + \beta oc_{it} + \beta bs_{it} + \beta ned_{it} + \beta bm_{it} + \beta aci_{it} + \beta acm_{it} + \beta aq_{it} + \beta fs_{it} + \beta lvg_{it} + \mu_{it}$$

Hypothesis of study

Hypothesis 0

H0: There is a negative association between corporate governance and idiosyncratic risk.

Hypothesis 1

H1: There positive impact of corporate governance on idiosyncratic risk.

ARCH (GARCH) and EGARCH model

These 2 qualities are available in the ARCH model in view of the way restrictive variance is modeled, anywhere the error variance of the theoretical regression is thought to be reliant on the lagged squared miscalculation. The summed up ARCH (GARCH) model, created by Bollerslev (1986), is an augmentation of the ARCH model. In the GARCH model, contingent veranice might be relied upon its own particular in addition to legged inaccuracy, so the model permits data on precedent squared errors to impact present deviation without including multiple parameters.

An instance of the GARCH (p,q) model can be experiential in Equation (3):

$$Y_t = \beta_o + \beta_1 x_{1t} + \beta_2 x_{2t} + \cdots + \beta_n x_{nt} + \mu_t, \qquad \mu_t \sim N(0, \sigma_t^2$$

$$Y_t = \alpha_o + \alpha_1 \mu_{t-1}^2 + \alpha_2 \mu_{t-2}^2 + \cdots + \alpha_q \mu_{t-q}^2 + \beta_1 \sigma_{t-1}^2 + \beta_2 \sigma_{t-2}^2 + \cdots + \beta_p \sigma_{t-p}^2$$

Whereμ_t and $\sigma_t^2$are the regression's errors and error variance, correspondingly.

At last, the exponential GARCH (EGARCH) model proposed by Nelson (1991), an expansion of the GARCH model, ought to be highlighted. The models have a series of points of interest, for example, the inconceivability of producing negative changes and allowing the presence of asymmetries in the model (leverage impact). The EGARCH (p,q) model, in common terms, can be write down as follows:

$$Y_t = \beta_o + \beta_1 x_{1t} + \beta_2 x_{2t} + \cdots + \beta_n x_{nt} + \mu_t, \qquad \mu_t \sim N(0, \sigma_t^2$$

$$\mathrm{IN}(\sigma_t^2) = \omega + \sum_{l=1}^{p} b\ \mathrm{In}(\sigma_{t-1}^2) + \sum_{k=1}^{q} ck\{y\left(\frac{\mu_{t-k}}{\sqrt{\sigma 2_{t-k}}}\right) + \alpha\left[\frac{\mu_{t-k}}{\sigma 2_{t-k}} - \sqrt{\frac{2}{\pi}}\right]\}$$

In Equation, since the logarithm of variance is particular, σt2 will be a positive constant if the model's parameters are negative.

Because of its properties, which are splendidly appropriate to modeling volatility in financial series, the EGARCH demonstrate was utilized as a part of this examination as an optional method for evaluating idiosyncratic volatility. Since it gives a contingent variance series for every expected model, the EGARCH model is helpful as a method for evaluating estimated idiosyncratic volatility (Fu, 2009).

Results

Data analysis

This study is adopted by the Panel data methodology. The combination of observation on cross-section data and time periods is from panel methodology. Panel study also provides the accurate results with no detection in cross section or time series investigation. Panel data provides different equation from cross-section and time series analysis.

We used the Eviews5, to analyze corporate governance and idiosyncratic risk of Pakistan stock exchange. We have chosen to investigate the financial sector on the Pakistan stock exchange. There were 104 companies of the non-financial sector for which data of 104 was enlisted in the stock exchange.

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ido	1248	-125.8021	224.7979	-1060.975	366.4407
dul	1248	.3309295	.4707364	0	1
bo	1248	.2353366	.2483031	0	.978732
ish	1248	.1255592	.1288728	0	.9676672
oc	1248	.6170081	.189478	.1506383	.9796879
bs	1248	7.85016	1.589606	3	15
ned	1248	.5885053	.2272497	0	1
bm	1248	5.344551	1.910978	0	18
aci	1248	.7578659	.2434004	0	1
acm	1248	2.950321	1.976388	0	8
aq	1248	.4591346	.498527	0	1
fs	1248	14.37427	1.615016	8.71029	19.19587
lvg	1248	.1819987	.2204641	0	2.727095

In the above-given table, descriptive statistics of the study are depicted. Descriptive statistics table show for both dependent and independent variables. In this table maximum, minimum, mean and standard deviation values of all variables of study are shown; CEO duality is an independent variable of the study which is measured as the CEO also held's the positions of chairman. The numbers of observations of this variable are 1248 during the time period of 2004 to 2016. The minimum value of the independent variable CEO duality individual is 0 and the maximum value is 1, which indicates there is the existence of data between two values. The value of the mean of individual CEO duality is .3309295 and the standard deviation is 0.4707.

The second independent variable is Board ownership of the research which is measured as the stock ownership in a board member. The numbers of observations of this variable are 1248 during the time period of 2004 to 2016. The minimum value of the independent variable Board ownership is 0 and the maximum value is 0 .9787. The value of the mean of Board ownership is 0.2353 and the standard deviation is 0. 2483.

Table 3 Correlation matrix

	ido	dul	bo	ish	oc	bs	ned	bm	aci	acm	aq	aq	lvg
ido	1.0000												
dul	-0.0465	1.0000											
bo	-0.0434	0.2036	1.0000										
ish	-0.0179	-0.0534	-0.2584	1.0000									
oc	0.0218	-0.0565	-0.1637	-0.0938	1.0000								
bs	-0.0832	-0.1287	-0.1040	0.2141	-0.1632	1.0000							
ned	-0.0300	-0.0839	-0.2113	0.0822	0.0072	0.0801	1.0000						
bm	-0.1248	-0.0368	0.0770	-0.1127	0.0118	0.0957	-0.1532	1.0000					
aci	-0.0229	-0.0640	-0.2207	0.1440	0.0602	0.1095	0.4203	-0.1276	1.0000				
acm	-0.0026	0.0168	0.0471	-0.0653	0.0598	-0.0121	0.0310	0.0249	0.1028	1.0000			
aq	0.0703	-0.2550	-0.2948	0.1744	0.0871	0.1810	0.1103	0.0476	0.1686	0.1200	1.0000		
fs	0.0572	0.0042	0.0210	-0.0358	-0.1369	0.0222	-0.0622	0.0382	-0.0396	-0.0193	0.0234	1.0000	
lvg	0.0055	0.0255	0.0514	0.0400	-0.0434	0.0320	0.0419	0.0100	0.0324	0.0094	-0.0806	0.0392	1.0000

Table 3 shows that the correlation of coefficient between two variables. The sample of 34 companies describes the observations of the firms from the period of 2008 to 2013. The variables has been defined by the correlation scale that if the values (0.0-0.3) defined that no correlation between variables and if the values (0.31-0.5) defined the weak correlation and if the values between (0.51-0.7) defined that a moderate correlation exists between variables and if the values between (0.71-1.00) showed that strong correlation of these variables.

The above results showed that CEO duality and idiosyncratic risk have negative no correlation. Negative effect between idiosyncratic risk and board ownership and defined the no relation between them. The more results showed that there is no relationship idiosyncratic risk and institutional ownership and define the negative effect between them. Positive effect between idiosyncratic risk and ownership concentration and defined the no relation between them. The idiosyncratic risk and board size defined negatively no relationship. The idiosyncratic risk and board independence negatively affects but exist no relation between them. Board meeting also has no relation with idiosyncratic risk and they are negatively affected on each other. The idiosyncratic risk and audit committee independence has no relationship but they are negatively effective. Other negatively effects involved idiosyncratic risk and audit committee meeting defined the no relation between them. The idiosyncratic risk and audit quality defined positively affected and among no relationship. The idiosyncratic risk and firm size positively affects but exist no relation between them. Leverage also has no relation to idiosyncratic risk and they are positively affected on each other.

Table 4. Regression analysis

ido	Coefficient	Std. Err.	P value	[95% Conf. Interval]	
dul	-11.71998	9.517197	0.0218	-30.37334	-6.933386
bo	53.13435	27.04925	0.0149	-106.1499	-.118784
ish	95.80385	37.81475	0.011	-169.9194	-21.68831
oc	-18.95626	32.44964	0.0559	-82.55638	-44.64386
bs	4.363458	3.404686	0.0200	-11.03652	-2.309604
ned	50.92537	22.40772	0.023	-94.84369	-7.007055
bm	2.348668	2.592057	0.0365	-7.429007	-2.731671
aci	37.71314	19.50617	0.053	-75.94454	-.5182561
acm	2.222486	2.22012	0.0317	-6.57384	-2.128869
aq	11.12266	13.66497	0.0416	-15.66018	-37.90551
fs	-2.740099	3.249036	0.0399	-9.108091	-3.627894
lvg	-35.02435	20.74867	0.091	-75.691	-5.642294
cons	66.87535	67.67968	0.323	-65.7744	-199.5251

Now, the value of CEO duality indicates that holding everything else constant, one unit increases in CEO duality will lead to the decrease of idiosyncratic risk by -11.7199unit. The negative sign with a value of the coefficient of CEO duality shows the negative relationship between idiosyncratic risk and CEO duality. It means whenever CEO duality increases it will lead to the decrease of idiosyncratic risk. It is significant with the probability of 0.0128.

The value of board ownership indicates that holding everything else constant, one unit increases in board ownership will lead to the increase of idiosyncratic risk by 53.1343 units. The positive sign with a value of the coefficient of board ownership shows the positive connection between

board ownership and idiosyncratic risk. It means whenever board ownership increases it will lead to the increase in idiosyncratic risk. It is significant with the probability of 0.0149.

The value of institutional ownership indicates that holding everything else constant, one unit increases in institutional ownership will lead to the increase of idiosyncratic risk by 95.8038 units. The positive sign with a value of the coefficient of institutional ownership shows the positive correlation between institutional ownership and idiosyncratic risk. It means whenever institutional ownership increases it will lead to the increase of idiosyncratic risk. It is significant with the probability of 0.011.

The value of ownership concentration indicates that holding everything else constant, one unit increases in ownership concentration will lead to the decrease of idiosyncratic risk by -18.9562 units. The negative sign with a value of the coefficient of ownership concentration shows the negative relationship between ownership concentration and idiosyncratic risk. It means whenever ownership concentration increases it will lead to the decrease of idiosyncratic risk. It is significant with the probability of 0.0559.

The value of board size indicates that holding everything else constant, one unit increases in board size will lead to the increase of idiosyncratic risk by 4.3634 units. The positive sign with a value of the coefficient of board size shows the positive relationship between board size and idiosyncratic risk. It means whenever board size increases it will lead to the increase of idiosyncratic risk. It is significant with the probability of 0.0200.

The value of board independence indicates that holding everything else constant, one unit increases in board independence will lead to the increase of idiosyncratic risk by 50.9253 units. The positive sign with a value of the coefficient of board independence shows the positive bond between board independence and idiosyncratic risk. It means whenever board independence increases it will lead to the increase in idiosyncratic risk. It is highly significant with the probability of 0.023.

The value of board meeting indicates that holding everything else constant, one unit increases in board meeting will lead to the increase of idiosyncratic risk by 2.3486 units. The positive sign with a value of the coefficient of board meeting shows the positive affiliation involving board meeting and idiosyncratic risk. It means whenever board meeting increases it will lead to the increase of idiosyncratic risk. It is significant with the probability of 0.0365.

The value of audit committee independence indicates that holding everything else constant, one unit increases in audit committee independence will lead to the increase of idiosyncratic risk by 37.7131 units. The positive sign with a value of the coefficient of audit committee independence shows the positive association involving audit committee independence and idiosyncratic risk. It means whenever audit committee independence increases it will lead to the increase of idiosyncratic risk. It is significant with the probability of 0.053.

The value of the audit committee meeting indicates that holding everything else constant, one unit increases in audit committee meeting will lead to the increase of idiosyncratic risk by 2.2224 units. The positive sign with a value of the coefficient of audit committee meeting shows the positive correlation between audit committee meeting and idiosyncratic risk. It means whenever an audit committee meeting increases it will lead to the increase of idiosyncratic risk. It is significant with the probability of 0.0317.

The value of audit quality indicates that holding everything else constant, one unit increases in audit quality will lead to the increase of idiosyncratic risk by 11.1226 units. The positive sign with a value of the coefficient of audit quality shows the positive relationship between audit quality and idiosyncratic risk. It means whenever audit quality increases it will lead to the increase in idiosyncratic risk. It is significant with the probability of 0.0416.

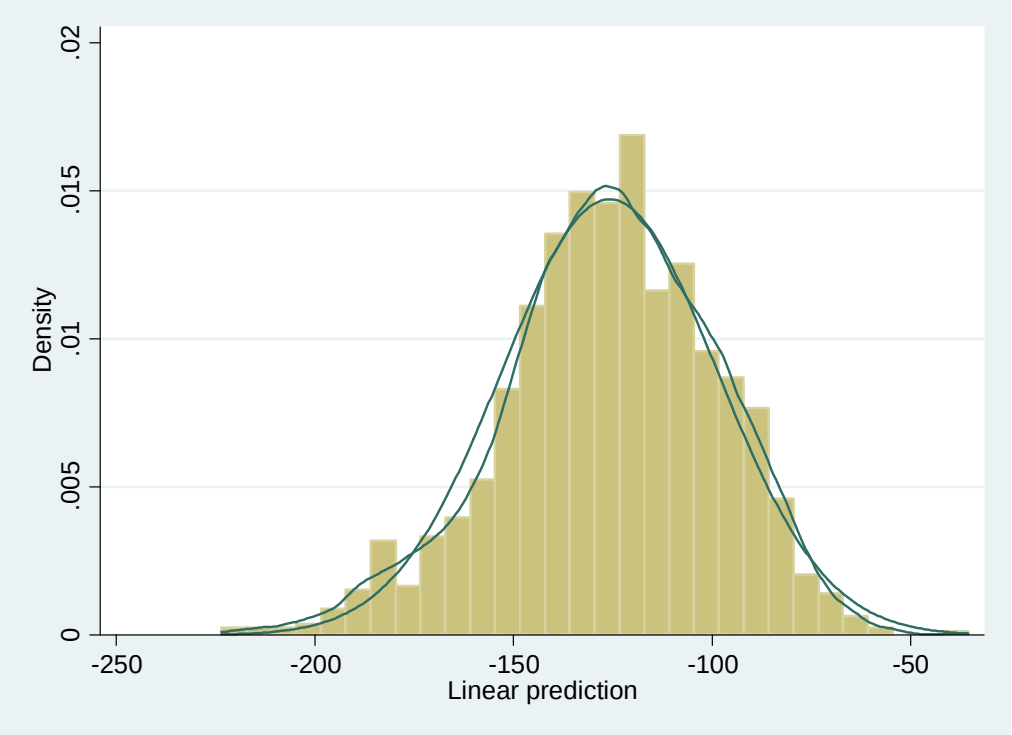

Figure 1. Normality Graph

Interpretation

The mean value is always in the midpoint of this cover. The graph on Figure 1 shows the bell cover is symmetric. The data are divided two side half data or point life side of mean point, and half data or point right side of the mean point. The graph shows the standard deviation is linear predicted. The graph show data are normal distributing both side of mean value.

Discussion

Based on the literature, to my knowledge, the association between idiosyncratic risk and corporate governance has not been previously studied in the context of a market with internal governance-control-characteristics such as the Pakistan market. The primary focus and conclusion of this study are that there is a clear and strong correlation between corporate governance and idiosyncratic risk in a market with internal-governance-control characteristics, such as the Pakistan markets. Moreover, the Pakistan market is a well-organized, well-functioning, fair and efficient market. Thus, idiosyncratic risk is relevant in such a market and is integral to good CG and organization performance.

Research is conducted in the association between idiosyncratic volatility and CG. The corporate governance focus of the study is on aspects board structure and composition, and on aspects of ownership and ownership structure. In addition, a potential link between CG and idiosyncratic risk is observed following an analysis of regression results for idiosyncratic volatility on corporate governance.

However, the primary focal point of this study is on the association involving idiosyncratic risk and CG in a market with internal-governance-control characteristics, therefore the main aim of the research is to examine this correlation in this context.

Conclusion

The primary conclusion of this study is that there is a clear affiliation between idiosyncratic risk and CG in a market with internal-governance-control characteristics. The primary conclusion of a relationship between idiosyncratic risk and CG is based on clear and strong relationships established in this study idiosyncratic volatility and a number of internal-governance-control variables based on board structure and composition, and ownership and ownership structure. The primary conclusion of this study is supported by a highly significant regression coefficient and robust statistics. A connection between idiosyncratic risk and corporate governance has implications for fund managers and investors alike, for the identification well governed, superior performing firms, for a given level of idiosyncratic risk. Moreover, the firm-level idiosyncratic risk may be identified by examining firm-specific, internal-governance-control-structures and characteristics. Thus, adding a new dimension to the predictive abilities of idiosyncratic volatility for investment return, firm value and performance. Ferreira and Laux (2007) put forward that higher idiosyncratic volatility fosters elements that are indications of good corporate governance, such as better decision making by management, better capital budgeting, and more efficient capital investment. They also put forward that corporate governance can have a direct impact on equity prices and on the efficiency of equity prices. This is because element such as greater transparency, openness to the discipline of the market, and knowledgeable trading by institutions can work together to control the informational efficiency in stock prices (Gompers et al. 2003). Ferreira and Laux (2007) point out that even though greater transparency makes a firm more exposed to takeover, it also leads to greater information flow and potentially better outcomes for the firm.

Suggestions for Future Research

An option could be to conduct different statistical tests on the data. This paper has only checked the correlation with the actual values on corporate governance and idiosyncratic risk. Researching the same variables with different data sets might suggest other statistical measures to be appropriate which could provide additional understanding. A suggestion could be to investigate if the year-to-year changes in corporate governance, idiosyncratic risk had a similar relationship. Another research could investigate the observed relationship further by for example by examining whether there is a potential causal link between these variables.

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