Blockholder Characteristics and Earnings Quality

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Abstract

There are various corporate governance mechanisms that prevent managers from engaging in earnings management. One of these mechanisms is the existence of blockholders. The existence of blockholders, has been shown in literature to mitigate the agency problem between managers and shareholders, and increase earnings quality by decreasing the likelihood of earnings management. However, most of the studies in literature make the intrinsic assumption that blockholders are a homogeneous group. This study is one of the very few studies to acknowledge the heterogeneity of blockholders and attempts to understand the unexplained proportion of blockholder heterogeneity by analyzing the impact of blockholders on earnings quality.

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1. Introduction

Reported earnings is the center of attention, when investors are evaluating the financial state of a firm. Nevertheless, managers tend to misstate earnings either voluntarily or involuntarily. Especially, when managers are under pressure to meet market expectations, their likelihood of engaging in earnings management activities increases. The use of accrual-basis accounting lays the groundwork for such distortion as estimation of accruals is rather a subjective practice.

Distortion of financial statements leads to poor quality accounting information which makes it difficult for investors to evaluate a firm's true financial health, allows room for private benefits, and increases information asymmetry between managers and investors (Jo and Kim, 2007).

There are various mechanisms that prevent managers from engaging in earnings management. One of these mechanisms is the existence of large shareholders, or in other words blockholders, which is the main focus of this study. The existence of blockholders, has been shown in literature to be associated with less severe agency problem between managers and shareholders (Shleifer and Vishny, 1986, Admati, Pfleiderer, and Zechner, 1993, Huddart, 1993, Maug, 1998, Noe, 2002, Gillan and Starks, 2003), and lower likelihood of earnings management (Dechow, Sloan, and Sweeney, 1996, Cheng, and Reitenga, 2001, Chung, Firth, and Kim, 2002).

Most of the studies in literature make the intrinsic assumption that blockholders are a homogeneous group and analyze the impact of their existence alone (Chung, Firth, and Kim, 2002, Klein, 2002). However, blockholders are a heterogeneous group, and only a couple of

studies acknowledge their heterogeneity (Cronqvist and Fahlenbrach, 2007, and Dou, Hope, Thomas, and Zou, 2013). Cronqvist and Fahlenbrach (2007), asserts that blockholders do, indeed, vary in their beliefs, skills, and preferences. Even today, Dou, Hope, Thomas, and Zou (2013) posits that a significant part of blockholder heterogeneity is still unexplained.

This study is an attempt to understand the unexplained proportion of blockholder heterogeneity and analyze the impact of blockholders on earnings quality. Methods used to measure earnings quality, use accruals quality as their proxy. Thus, as the first step, we calculate accruals quality using using the FDD model proposed by Lee and Masulis (2009). FDD model is the modified Dechow and Dichev (2002) model with fixed effects.

Then, we regress accruals quality on blockholder characteristics such as incentive, insider/outsider status, shareholding size, geographical proximity, and shareholding duration. Controlling for firm characteristics and auditor choice, we want to see the impact of various types of blockholders in earnings quality.

Our results show that the more blockholders a firm has, the lower will be the earnings quality. On the other hand, existences of both insider and outsider blockholders seem to have a positive impact on earnings quality. Looking at different incentive groups, earnings quality is lower for firms with market-driven and multilateral blockholders.

The rest of the paper proceeds as follows. Section 2, reviews the literature. Section 3, introduces the sample and variables. Section 4, presents the methodologies. Section 5, presents the robustness tests and finally Section 6, concludes.

2. Literature Review

2.1. Earnings Quality

Among the many components of financial statements, reported earnings has always been the center of attention. However, reported earnings are subject to voluntary or involuntary misstatement by managers. Managers use accrual-basis accounting to communicate a firm's true state of earnings to the investors. This method values relevancy of information over its reliability, and records revenues and expenses when they accrue, or in other words, in the absence of a cash transaction.

Often times, under pressure to meet or beat the expectations of analysts and investors, managers have a tendency to manage earnings. Earnings management is defined as the act of manipulating accruals to paint an overly positive picture of a firm's business activities and financial state. In his often cited speech called "The Numbers Game", Arthur Levitt, the Chairman of the Securities and Exchange Commission, talks about the anectodal example of a firm which failed to meet its earning estimates by one penny, and lost more than six percent of its stock value in one day[1].

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[1] Source: http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt

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On the other hand, distortion of accruals creates poor quality accounting information and that in turn makes it difficult for investors to evaluate a firm's true financial health, allows room for private benefits, and increases information asymmetry between managers and investors (Jo and Kim, 2007).

There are many approaches in literature used to measure accruals. Typically they include the use of a regression method and the choice of variables changes from one approach to another approach. The main problem with these approaches is estimation errors. Below are the most commonly used approaches in literature recently to measure accrual quality.

2.1.1.1.   Jones Model

Jones (1991) model is one of the first models that have been widely used in literature. She uses a regression model where the dependent variable is total accruals (TA) in current year scaled by assets (A) in the past year. Her model is given below;

$$\frac{TA_t}{A_{t-1}} = \alpha \left[\frac{1}{A_{t-1}}\right] + \beta_1 \left[\frac{\Delta REV_t}{A_{t-1}}\right] + \beta_2 \left[\frac{PPE_t}{A_{t-1}}\right] + \varepsilon_t \tag{1}$$

where ΔREV is the change in revenues and PPE is the gross property, plant, and equipment.

Then, estimates of firm-specific parameters; α, β_1, and β_2 are obtained from this model during the estimation period are used in the model for nondiscretionary accruals (NDA) below:

$$NDA_t = \alpha \left[\frac{1}{A_{t-1}}\right] + \beta_1 \left[\frac{\Delta REV_t}{A_{t-1}}\right] + \beta_2 \left[\frac{PPE_t}{A_{t-1}}\right] \tag{2}$$

The prediction error u_t shows the level of discretionary accruals and it is given by the following equation:

$$u_t = \frac{TA_t}{A_{t-1}} - NDA_t \qquad (3)$$

The higher the level of discretionary accruals, the lower the accruals quality.

2.1.1.2. Modified Jones Model

Dechow, Sloan, and Sweeney (1995) investigates alternative models that measure accruals quality to detect earnings management. As a result of their analyses, they propose a modified version of Jones (1991) model and assert that their model has the highest power in detecting earnings management.

They use the first part of the original Jones (1991) model to obtain estimates of firm-specific parameters; $\alpha, \beta_1,$ and β_2, but in the next step they adjust the change in revenues for the change in receivables (REC).

$$NDA_t = \alpha \left[\frac{1}{A_{t-1}} \right] + \beta_1 \left[\frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} \right] + \beta_2 \left[\frac{PPE_t}{A_{t-1}} \right] \qquad (4)$$

2.1.1.3. Dechow and Dichev Model

Dechow and Dichev (2002) analyzes the quality of accruals and earnings paying special attention to estimation errors. Asserting that the quality of accruals and earnings is negatively related to

the magnitude of estimation errors, they introduce a new approach to assess earnings quality. Their method uses the standard deviation of the firm-specific residuals from the regression of their accruals measure which is the change in working capital (ΔWC), on past, current, and future cash flow from operations (CFO) to proxy for accruals quality. All of the variables are scaled by total assets. The residuals from this regression show the accruals that are not related to cash flow from operations and a higher standard deviation is a signal of lower accrual quality.

$$\Delta WC_t = b_0 + b_1 CFO_{t-1} + b_2 CFO_t + b_3 CFO_{t+1} + \varepsilon_t \qquad (5)$$

2.1.1.4. McNichols Model

McNichols (2002) analyzes the Dechow and Dichev (2002) model (DD model) and provides empirical evidence of measurement error in their application. She adapts the DD model to assess the specification of the Jones (1991) model and finds that estimates from this new model which will be referred to as the MDD model hereafter, are more significantly related with cash flows.

More specifically, MDD model uses the same regression model from DD model, with the addition of two new explanatory variables. These are change in sales ($\Delta Sales$), and property, plant, and equipment items (PPE), and both of them are scaled by total assets.

$$\Delta WC_t = b_0 + b_1 CFO_{t-1} + b_2 CFO_t + b_3 CFO_{t+1} + b_4 \Delta Sales_t + b_5 PPE_t + \varepsilon_t \qquad (6)$$

2.1.1.5. Lee and Masulis Model

Lee and Masulis (2009) also analyzes the DD model as well as the MDD model and proposes a new model based on these two previous models. They extend the MDD model to include firm fixed effects in order to capture unobserved firm characteristics such as accounting policies and cash flow characteristics. The authors assert that, their model which will be referred to as the FDD model hereafter, mitigates problems caused by possible omitted variables in the MDD model and directly adjusts for heteroskedasticity.

2.1.2. Blockholders

Blockholders are defined as large shareholders that typically own at least 5 percent of a firm's outstanding shares (Klein, 2002, Krishnan and Lee, 2009, Dou, Hope, Thomas, and Zou, 2013). They can be either institutions such as insurance companies, pension funds, banks, investment companies or individuals such as outside investors or managers of a firm.

The existence of blockholders in firms is often perceived as a sign of strong corporate governance whether the shareholder is an insider or an outsider. Outsider blockholders are seen as an effective monitoring mechanism as they have the ability to influence management's activities by their large shareholdings which grant them voting rights (Klein, 2002, Gillan, and Starks, 2003, D'Mello, Demiralp, Schlingemann, and Subramaniam, 2011) and also by trading their shares (Gillan, and Starks, 2003). Their existence is related with higher abnormal returns following equity issues

(Borokhovich, Brunarski, Harman and Parrino, 2006), decreased likelihood of earnings management (Dechow, Sloan, and Sweeney, 1996, Cheng, and Reitenga, 2001, Chung, Firth, and Kim, 2002), stricter control over executive compensation (David, Kochhar, and Levitas,1998, Bertrand and Mullainathan, 2001), increased management turnover (Kang and Shivdasani, 1995), and better corporate performance (McConnell and Servaes, 1990).

On the other hand insider blockholders such as managers are seen as better agents as their stock ownership aligns their interests with those of outside shareholders. Managerial ownership is associated with decreased likelihood of earnings management (Warfield, Wild, and Wild, 1995).

2.1.3.   The Impact of Blockholders on Earnings Quality

Since there are certain costs associated with monitoring the managers' actions, only large shareholders have sufficient incentive to monitor managers (Gillan and Starks, 2003). Typically, the existence of large shareholders, in other words blockholders, mitigates the agency problem between managers and shareholders (Shleifer and Vishny, 1986, Admati, Pfleiderer, and Zechner, 1993, Huddart, 1993, Maug, 1998, Noe, 2002, Gillan and Starks, 2003), and decreases likelihood of earnings management (Dechow, Sloan, and Sweeney, 1996, Cheng, and Reitenga, 2001, Chung, Firth, and Kim, 2002).

Many studies that analyze the impact of blockholders consider them to be a homogeneous group (Chung, Firth, and Kim, 2002, Klein, 2002). However, Cronqvist and Fahlenbrach (2007) asserts

that blockholders are a heterogeneous group, and their results suggest that blockholders vary in their beliefs, skills, and preferences.

The studies that acknowledge the heterogeneity among blockholders, analyze the impact of various blockholder characteristics by classifiying them into different categories based on their shareholding duration (D'Mello, Demiralp, Schlingemann, and Subramaniam, 2011), affiliation with management (Borokhovich, Brunarski, Harman and Parrino, 2006), active status and shareholding size (Cheng and Reitenga, 2001, and Dou, Hope, Thomas, and Zou, 2013), response to pressure (David, Kochhar, and Levitas, 1998), insider status (Cronqvist and Fahlenbrach, 2007, and Dou, Hope, Thomas, and Zou, 2013), institution type (Cronqvist and Fahlenbrach, 2007), and geographical proximity to firm (Dou, Hope, Thomas, and Zou, 2013).

To date, Cronqvist and Fahlenbrach, (2007), and Dou, Hope, Thomas, and Zou (2013) are the only studies in literature to explore the impact of blockholders on corporate policies, and firm's accounting practices on a large scale. However, a significant proportion of blockholder heterogeneity still remains unexplained and there is need for additional research in order to better understand the specific mechanisms through which blockholders effect financial reporting (Dou, Hope, Thomas, and Zou, 2013).

This study adds to the literature on blockholder heterogeneity, by focusing on various blockholder attributes such as incentive, insider/outsider status, shareholding size, geographical proximity, and shareholding duration.

3. Data and Variables

3.1. Data

Our initial sample consists of firms listed in RiskMetrics database as this database has the information regarding shares held by board members and helps us identify the independence of blockholders. Then, to obtain firm characteristics, we merge this dataset with Compustat database.

Holderness (2009) discusses the necessity of hand-collecting data from proxy statements and the challenges associated with this process when working with block ownership data. Thus, we collect the data about block ownership from proxy statements (DEF 14A) available online on SEC's EDGAR database for each firm and follow his approach to overcome the challenges that arise in data collection.

Our sample period covers the years 2009, 2010, and 2011. Since we use hand collected data, this helps to make the data collection manageable. Following previous literature, we exclude firms with missing data, financial firms (SIC codes 6000-6999), utilities (SIC codes 4910-4940), firms not listed on NYSE, and firms with dual class shares (Cronqvist and Fahlenbrach, 2007). These restrictions leave us with 1450 observations.

Table 1 shows the distribution of our sample firms by calendar year. Panel A shows the sample distribution for firms with blockholders. While the firms with blocholders are rather evenly

distributed over time, we can still see an increasing trend in their number from year 2009 to year 2011.

Panel B of Table 1, shows the sample distribution for firms that do not have any blockholders. Consistent with panel A, there is a decrease in the number of firms with no blockholders from year 2009 to year 2011. Overall, 96.2% of the firms in our sample have blockholders that own at least 5% of the firms stock. This is consistent with Holderness (2009) who asserts that 96% of the firms in his sample for 375 firms have blockholders that own at least 5% of the firms stock.

3.1.1. Variables

Our dependent variable is accruals quality measured by using the FDD model of Lee and Masulis (2009) explained in the literature review. The independent variables which are classified as blockholder characteristics and control variables are explained below.

3.1.1.1. Blockholder Characteristics

3.2.1.1. Incentive: Cronqvist and Fahlenbrach (2007) finds blockholder effects to be more concentrated for investor categories such as activists, pension funds, corporations, individuals, private equity firms, and mutual funds. Furthermore Camara (2005) asserts that institutional investors have different incentives and classifies them under four categories. The first three categories are based on incentive creating forces such as market, political and social forces, while the last category includes multilateral investors. We expect to see different impacts on accrual

quality for each investor group. Thus, we follow Camara (2005), and classify blockholders under four different groups using four binary dummy variables that take the value 1 for firms belonging to that specific category. The blockholder classes are given below:

*a) **Market-driven blockholders:*** Hedge funds, mutual funds, and venture capitalists.

*b) **Politically-driven blockholders***: State, public pension funds, shareholders with a cause.

*c) **Socially-driven blockholders:*** The gentleman of affairs, founding families and plutocrats, wealthy managers and technocrats.

*d) **Multilateral blockholders:*** Private pension funds, bank trust departments, insurers.

We do not have a prediction for the signs of these dummy variables as these variables are rather new, and they have not been used in this specific area of research before.

*3.2.1.2. **Independence:*** Borokhovich, Brunarski, Harman and Parrino, (2006), Cronqvist and Fahlenbrach (2007), and Dou, Hope, Thomas, and Zou, (2013) classify blockholders based on their insider/outsider status. Thus we follow these studies and use two binary dummy variables; insider and outsider that take the value 1 if the blockholder belongs to that specific group.

The existence of outsider blockholders is seen as a sign of good corporate governance, thus we expect to see a positive relationship between outsider dummy variable and accrual quality. On the other hand, we do not have a prediction for insider blockholders. Managerial stock ownership aligns the interests of managers with those of shareholders, and thus it may lead to better accrual

quality. However, beyond a certain level, it may also be the sign of managerial entrenchment. If that is the case, it would lead to worse accrual quality.

3.2.1.3. Shareholding size: Cheng and Reitenga (2001) and Dou, Hope, Thomas, and Zou (2013) use the size of blockholders' holdings of firms shares as blockholders with larger holding size have greater influence on firms' corporate policies. Thus we create two variables for each firm. The first one accounts for the percentage of outstanding shares held by blockholders, and the second one accounts for average shareholding size. We expect to observe a positive relationship between these variables and accruals quality.

3.2.1.4. Geographical proximity: People typically know more about the companies around their towns. Dou, Hope, Thomas, and Zou (2013) uses geographical proximity variable and if the blockholders live within 100 km radius of the firm, they are considered local blockholders. Following them, we identify blockholders who are local and expect to observe a positive relationship between their existence and accrual quality.

3.2.1.5. Shareholding duration: D'Mello, Demiralp, Schlingemann, and Subramaniam, (2011) and Dou, Hope, Thomas, and Zou (2013) assert that the shareholding duration of blockholders is also an important control variable. D'Mello, Demiralp, Schlingemann, and Subramaniam, (2011) explains that institutions that make long-term investments in firms are more active monitors and they focus on the long term performance of the firm. Following Dou, Hope, Thomas, and Zou (2013), we use a three year threshold for a blockholder to be classified as a long-term investor. We use a binary dummy variable that takes the value 1 for long-term investors, and zero

otherwise. We expect to find a positive relationship between the existence of long-term investors and accruals quality.

Table 2 presents descriptive statistics for blockholder characteristics. On average, a firm has 4 blockholders, and 32.57% of a company's outstanding shares are held by blockholders. The highest number of long-term and local blockholders in a firm is 5, while there are firms with no long-term or local blockholders. There are more firms with outsider blockholders than firms with insider blockholders. Market-driven blockholders are the most prevalent type of investors in our sample.

3.1.1.2.   Control Variables

3.2.2.1. Size: Firm size is a frequently used control variable in earnings management studies (Dechow and Dichev, 2002, Klein, 2002, Chung, Firth, and Kim, 2002, Mitra and Cready, 2005, Bradbury, Mak, and Tan, 2006, Lee and Masulis, 2009, Guthrie and Sokolowsky, 2010, Dou, Hope, Thomas, and Zhou, 2013).

Lee and Masulis (2002), asserts that large companies are more likely to be followed by analysts, media, and investors. Thus the information asymmetry between managers and shareholders is likely to be less than smaller companies. Furthermore, Dechow and Dichev (2002) finds a positive relationship between firm size and accruals quality. Following previous literature we use natural logarithm of total assets to proxy for firm size and we expect to observe a positive relationship between accrual quality and firm size.

3.2.2.2.   ROA: Guthrie and Sokolowsky (2010), and Dou, Hope, Thomas, and Zhou, (2013) finds return on assets (ROA) to be a significant control variable as it proxies for firm operating performance and that is by definition related to accruals. ROA equals net income divided by total assets. Consistent with prior literature, we expect to observe a positive relationship between ROA and accruals quality.

3.2.2.3.   Growth: Smith and Watts (1992) asserts that managerial discretion is greater in high growth firms. Due to the prevalency of this issue, Bradbury, Mak, and Tan (2006) posits that high growth firms will adopt mechanisms to mitigate the agency problem. Klein (2002), Gabrielsen, Gramlich and Plenborg (2002), Bradbury, Mak, and Tan (2006) and Zhong, Gribbin, and Zheng (2007) use the ratio of market value of equity to book value of equity as a proxy for growth variable. Following them, we use the same ratio to proxy for growth and expect to observe a positive relationship between growth and earnings quality.

3.2.2.4.   Leverage: Leverage is another control variable that is commonly used in research focusing on earnings management (Cheng and Reitenga, 2001, Chung, Firth, and Kim, 2002, Rajgopal, Venkatachalam, and Jiambalvo, 2002, Guthrie and Sokolowsky, 2010, Dou, Hope, Thomas, and Zhou, 2013).

 The more the firms are levered, the greater will be the managers' incentives to undertake riskier projects (Lee and Masulis, 2009) and to make income-increasing discretionary accruals (DeFond and Jiambalvo, 1994).

Following the extant literature we calculate leverage by dividing total debt by book value of total assets, and expect to observe a negative relationship between leverage and accruals quality.

3.2.2.5.   Auditor Choice: Auditor choice is another important factor to control for. Dechow, Sloan, and Sweeney (1996) investigates the causes and consequences of earnings manipulation and asserts that independence and quality of the outside auditor will impact the likelihood that earnings manipulation is detected. Thus, we use a binary dummy variable that takes the value 1 if the firm works with one of the big four auditors: Ernst & Young, PricewaterhouseCoopers, Deloitte Touche Tohmatsu, and KPMG, and 0 otherwise. We expect that working with a big four auditor will mitigate the likelihood of earnings management.

4. Research Methods

4.1. Univariate Analysis

As the first step, we calculate discretionary accruals for each firm-year observation using the FDD model explained in detail in literature review. Then we investigate, whether the existence of blockholders has a significant impact on the level of discretionary accruals. Following Dechow, Sloan, and Sweeney (1996), we perform a t-test for the difference in means and a Wilcoxon signed-rank test for the difference in medians.

Table 3 presents mean and median discretionary accruals for different incentive groups. Panel A compares mean and median discretionary accrual values for firms with market-driven blockholders and firms with no market-driven blockholders. Panel B compares mean and median discretionary accrual values for firms with politically-driven blockholders and firms with no politically-driven blockholders. Panel C compares mean and median discretionary accrual values for firms with socially-driven blockholders and firms with no socially-driven blockholders. Panel D compares mean and median discretionary accrual values for firms with multilateral blockholders and firms with no multilateral blockholders.

Overall, firms with market-driven blockholders and multilateral blockholders seem to have significantly higher discretionary accruals, which translates into lower accrual quality and the higher likelihood of earnings management activities.

4.2. Multivariate Analysis

To analyze the relationship between blockholder heterogeneity and financial reporting quality, we use ordinary least squares (OLS) regression method, and regress FDD on blockholder characteristics and firm characteristics variables. The specifications we use are variants of the base model 7 given below:

$$FDD = f(Number\ of\ Blockholders, Number\ of\ Insider\ Blockholders,$$

$$Number\ of\ Outsider\ Blockholders, Number\ of\ Local\ Blockholders,$$

$$Number\ of\ Long-term\ Blockholders, Number\ of\ Market-driven\ Blockholders,$$

$$Number\ of\ Politically-driven\ Blockholders, Number\ of\ Socially$$

$$-driven\ Blockholders, Number\ of\ Multilateral\ Blockholders,$$

$$Percentage\ of\ Total\ Shares\ Held\ by\ Blockholders,$$

$$Average\ Percentage\ of\ Shares\ Held\ by\ Blockholders, Size, ROA, Growth, Leverage,$$

$$Big4\ auditor\ dummy) \tag{7}$$

We include year dummies to control for trends (Ferreira and Laux, 2010), cluster at industry level to obtain robust standard errors that allow for heteroskedasticity and industry fixed effects (White, 1980, Rogers, 1993, Ferreira and Laux, 2010, Huang, and Tompkins, 2010).

Table 4 presents Pearson correlations among our variables. Other than a few exceptions, correlation values seem to be low. Hence, we do not expect major multicollinearity issues.

Table 5 presents the results for the regression analyses. Dependent variable is the accrual quality calculated using the FDD model. Models 1 to 5 are different specifications of the baseline regression model. Model 1 includes all variables in the baseline model. Model 2 specifically tests the impact of market-driven blockholders on FDD. Model 3 specifically tests the impact of politically-driven blockholders on FDD. Model 4 specifically tests the impact of socially-driven blockholders on FDD. Models 5 specifically test the impact of multilateral blockholders on FDD.

Looking at the table, firms with more blockholders seem to have higher level of discretionary accruals which translates into lower accrual quality and higher likelihood of earnings management. This result is consistent with the free-rider problem mentioned by Faure-Grimaud and Gromb (2004). When the ownership structure of a firm's shares is dispersed, this will cause a free-rider problem which decreases the likelihood that the blockholder will monitor the management. On the other hand existences of both insider and outsider blockholders seem to be negatively correlated with the level of discretionary accruals which translates into better accrual quality and lower likelihood of earnings management. These results are in line with the perception that the existence of blockholders is a sign of strong corporate governance whether the blockholder is an insider or an outsider. The results are consistent through all ten models. Looking at the incentive groups, blockholders driven by market forces and multilateral blockholders seem to have a significant negative impact on the accrual quality meaning that the firm is more likely to engage in earnings management.

Both our univariate and multivariate analyses provide consistent results. Accrual quality is lower for firms with market-driven and multilateral blockholders. Camara (2004) explains that market forces reward actions with money. He asserts that market-driven investors are motivated principally by financial gain. Thus, we might expect them to put greater pressure on the managers to increase earnings which would in turn, increase the likelihood of earnings management. In the case of multilateral investors, Camara (2004) explains that these investors have a variety of financial relationships with the firm. He asserts that if the payoffs associated with these relationships are different from those associated with equity ownership, these investors will sometimes not want to maximize shareholder value.

5. Robustness

In order to test the robustness of our results, we calculate accrual quality for each firm-year observation using the modified Jones model as well. Overall, the statistical significance using this approach is weaker. These results contribute to the literature investigating the estimation errors associated with various approaches used in literature to calculate accrual quality.

6. Conclusion

Blockholders are seen as effective monitoring mechanisms and their existence mitigates the agency problem between managers and shareholders. Blockholders, have been shown in literature to be associated lower likelihood of earnings management (Dechow, Sloan, and Sweeney, 1996, Cheng, and Reitenga, 2001, Chung, Firth, and Kim, 2002).

However, most of the studies in literature assume that blockholders are a homogeneous group. Yet, blockholders are a heterogeneous group, and indeed, they vary in their beliefs, skills, and preferences (Cronqvist and Fahlenbrach, 2007). To date, very few studies acknowledge their heterogeneity, and a significant part of blockholder heterogeneity still remains unexplained (Dou, Hope, Thomas, and Zou, 2013) .

This study is an attempt to understand this unexplained proportion of blockholder heterogeneity and analyze the impact of blockholders on earnings quality.

We find that the more blockholders a firm has, the lower will be the earnings quality. This result is consistent with the free-rider problem mentioned by Faure-Grimaud and Gromb (2004). On the other hand, existences of both insider and outsider blockholders seem to have a positive impact on earnings quality. These results are in line with the perception that the existence of blockholders is a sign of strong corporate governance whether the blockholder is an insider or an outsider.

Looking at different incentive groups, earnings quality is lower for firms with market-driven and multilateral blockholders. As explained by Camara (2004), market forces reward actions with money. The principal motivation for market-driven investors is financial gain. Thus, we might expect market-driven blockholders to put greater pressure on managers to increase earnings which would in turn, decrease earnings quality. On the other hand, in the case of multilateral investors, these investors have a variety of financial relationships with the firm. When the payoffs associated with these relationships are different from those associated with equity ownership, these investors will sometimes not want to maximize shareholder value (Camara, 2004), hence lowering the earnings quality.

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Table 1

Sample description by calendar year

The initial sample consists of firms listed in RiskMetrics database. Firm characteristics, are obtained from Compustat database and blockholder characteristics are hand-collected from DEF 14A statements available online on SEC's EDGAR database. Our sample period covers the years 2009, 2010, and 2011. We exclude firms with missing data, financial firms (SIC codes 6000-6999), utilities (SIC codes 4910-4940), firms not listed on NYSE, and firms with dual class shares. Panel A shows the calendar distribution of firms with blockholders. Panel B shows the calendar distribution of firms without blockholders.

Panel A. Blockholder Sample

Year	Number of Observations	Percentage of Sample
2009	452	32.4
2010	464	33.3
2011	479	34.3

Panel B. No Blockholder Sample

Year	Number of Observations	Percentage of Sample
2009	27	49.1
2010	15	27.3
2011	13	23.6

Table 2

This table presents descriptive statistics for blockholder characteristics.

Variable	Mean	Median	Std. Dev.	Min	Max
Outstanding Shares held by Blockholders	32.57	31	14.80	5	85.90
Number of Blockholders	3.99	4	1.65	0	10
Number of Long-term Blockholders	1.20	1	1.10	0	5
Number of Local Blockholders	0.53	0	0.90	0	5
Number of Inside Blockholders	0.21	0	0.53	0	4
Number of Outside Blockholders	3.78	4	1.65	0	10
Number of Market-driven Blockholders	3.28	3	1.58	0	9
Number of Politically-driven Blockholders	0.01	0	0.11	0	1
Number of Socially-driven Blockholders	0.30	0	0.65	0	4
Number of Multilateral Blockholders	0.40	0	0.63	0	4

Table 3. Discretionary Accruals and the Existence of Blockholders
This table presents discretionary accruals for different incentive groups. We perform a t-test for the difference in means and a Wilcoxon signed-rank test for the difference in medians. Panel A compares mean and median discretionary accrual values for firms with market-driven blockholders and firms with no market-driven blockholders. Panel B compares mean and median discretionary accrual values for firms with politically-driven blockholders and firms with no politically-driven blockholders. Panel C compares mean and median discretionary accrual values for firms with socially-driven blockholders and firms with no socially-driven blockholders. Panel D compares mean and median discretionary accrual values for firms with multilateral blockholders and firms with no multilateral blockholders.***, **, * denote significance at 1%, 5%, and 10% level respectively.

Incentive Classification	Mean	t	Median	Z
Panel A. Market-driven blockholders				
Market-driven BHs	0.0087	1.44	0.0034	-1.67*
No Market-driven BHs	0.0054		0.0023	
Difference	0.0033		0.0011	
Panel B. Politically-driven blockholders				
Politically-driven BHs	0.0051	-0.72	0.0034	0.29
No Politically-driven BHs	0.0086		0.0033	
Difference	-0.0034		0.0001	
Panel C. Socially-driven blockholders				
Socially-driven BHs	0.0075	-0.96	0.0038	0.7
No Socially-driven BHs	0.0087		0.0032	
Difference	-0.0012		0.0006	
Panel D. Multilateral blockholders				
Multilateral BHs	0.0101	2.15**	0.0034	1.11
No Multilateral BHs	0.0079		0.0033	
Difference	0.0022		0.0001	

Table 4

Pearson correlations

This table presents Pearson correlations for among our variables. ***, **, * denote significance at 1%, 5%, and 10% level respectively.

Variable	Number of BHs	Number of Insider BHs	Number of Outsider BHs	Number of Local BHs	Number of Long-term BHs	Number of Market-driven BHs	Number of Politically-driven BHs	Number of Socially-driven BHs
Number of BHs	1							
Number of Insider BHs	0.1755***	1						
Number of Outsider BHs	0.9565***	-0.1180***	1					
Number of Local BHs	0.2688***	0.5995***	0.0929***	1				
Number of Long-term BHs	0.4619***	0.4169***	0.3434***	0.3662***	1			
Number of Market-driven BHs	0.8730***	-0.1198***	0.9160***	0.0208	0.2752***	1		
Number of Politically-driven BHs	0.0584**	0.0126	0.0552**	0.0135	0.0703***	-0.0404	1	
Number of Socially-driven BHs	0.2086***	0.8622***	-0.0442*	0.6526***	0.4572***	-0.1296***	0.0121	1
Number of Multilateral BHs	0.2828***	-0.0678**	0.3047***	0.0328	0.0962***	-0.0498*	0.0906***	-0.0815***
Total Shareholding Size	0.8583***	0.2959***	0.7779***	0.3108***	0.5332***	0.7013***	0.0724***	0.3289***
Average Shareholding Size	-0.0556**	0.2478***	-0.1293***	0.1172***	0.1833***	-0.1325***	0.0354	0.2360***
Size	-0.4408***	-0.1886***	-0.3893***	-0.2061***	-0.2757***	-0.4117***	0.0081	-0.1861***
ROA	-0.1541***	0.0549**	-0.1711***	0.0623**	-0.0531**	-0.1359***	0.0179	0.0405
Growth	-0.0264	-0.0108	-0.0235	-0.0319	-0.0060	-0.0119	-0.0596**	-0.0163
Leverage	0.0131	-0.1311***	0.0494*	-0.1276***	-0.1035***	0.0312	0.0663**	-0.1337***
Big Four Dummy	-0.1149***	-0.1684***	-0.0639**	-0.2437***	-0.1234***	-0.0682**	0.0198	-0.1524***

Table 4

Pearson correlations continued

This table presents Pearson correlations for among our variables. ***, **, * denote significance at 1%, 5%, and 10% level respectively.

Variable	Number of Multilateral BHs	Total Shareholding Size	Average Shareholding Size	Size	ROA	Growth	Leverage	Big Four Dummy
Number of Multilateral BHs	1							
Total Shareholding Size	0.2122***	1						
Average Shareholding Size	-0.0513*	0.3878***	1					
Size	0.0334	-0.4536***	-0.0766***	1				
ROA	-0.1171***	-0.1486***	-0.0007	0.0710***	1			
Growth	-0.0162	-0.0180	-0.0034	0.0123	0.0552**	1		
Leverage	0.0771***	0.0343	0.0680**	0.2260***	-0.1621***	0.0455*	1	
Big Four Dummy	0.0123	-0.1627***	-0.0740***	0.2385***	0.0102	0.0129	0.1031***	1

Table 5

Regression Analyses
This table presents the results for the regression analyses. Dependent variable is the accrual quality calculated using the FDD model. We use ordinary least squares (OLS) regression method and include year dummies to control for trends. We also use robust standard errors corrected for clustering at industry level in order to allow for heteroskedasticity and industry fixed effects. Models 1-5 are different specifications of the baseline regression model. ***, **, * denote significance at 1%, 5%, and 10% level respectively.

Parameter	Model 1 Estimate	Model 1 tValue	Model 2 Estimate	Model 2 tValue	Model 3 Estimate	Model 3 tValue	Model 4 Estimate	Model 4 tValue	Model 5 Estimate	Model 5 tValue
Intercept	0.0312	5.56***	0.0313	5.56***	0.0302	5.46***	0.0300	5.44***	0.0316	5.59***
Blockholders	0.0217	3.44***	0.0224	3.81***	0.0224	3.75***	0.0221	3.56***	0.0220	3.64***
Insider BHs	-0.0247	-3.79***	-0.0236	-3.9***	-0.0238	-3.89***	-0.0218	-3.36***	-0.0234	-3.76***
Outsider BHs	-0.0253	-4.03***	-0.0216	-3.63***	-0.0225	-3.79***	-0.0223	-3.64***	-0.0226	-3.73***
Local BHs	0.0001	0.13	-0.0001	-0.16	0.0001	0.07	0.0003	0.32	-0.0001	-0.08
Long-term BHs	-0.0006	-0.66	-0.0008	-0.82	-0.0007	-0.72	-0.0006	-0.65	-0.0007	-0.76
Market-driven BHs	0.0029	2.4**	-0.0011	-1.26						
Politically-driven BHs	0.0009	0.54			-0.0015	-0.71				
Socially-driven BHs	0.0014	0.99					-0.0019	-1.12		
Multilateral BHs	0.0048	2.46**							0.0019	1.68
Total Shares Held by BHs	0.0001	0.85	0.0001	0.64	0.0001	0.63	0.0001	0.69	0.0001	0.79
Average Shares Held by BHs	-0.0003	-1.41	-0.0003	-1.22	-0.0003	-1.17	-0.0003	-1.23	-0.0003	-1.36
Size	-0.0016	-4.5***	-0.0015	-4.44***	-0.0014	-4.46***	-0.0014	-4.44***	-0.0016	-4.51***
ROA	-0.0052	-1.7*	-0.0058	-1.99*	-0.0059	-2.01*	-0.0060	-2.01*	-0.0054	-1.81*
Growth	0.0000	0.02	0.0000	0.13	0.0000	-0.01	0.0000	0.03	0.0000	0.11
Leverage	-0.0112	-2.69**	-0.0112	-2.738**	-0.0109	-2.64	-0.0111	-2.67**	-0.0113	-2.73***
Big Four Dummy	-0.0052	-0.95	-0.0058	-1.06	-0.0059	-1.07	-0.0056	-1.02	-0.0054	-1
Year dummies	Yes		Yes		Yes		Yes		Yes	
R-square	0.06596		0.0625		0.0608		0.0617		0.0650	