

Impact of independent director's characteristics influences financial reporting quality; Evidence from Pakistan

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ABSTRACT: *This paper examines the role played by independent directors in monitoring the financial reporting process and its effects on certain personal characteristics. In particular, it encompasses the tenure and the number of directorships that independent director's hold. The data was collected from Pakistani listed firms for eight years i.e. 2010-2017. A positive relationship between board independence and financial reporting quality has been concluded after applying various robustness checks as well as sensitivity analyses. In our results presence of the independent directors in total board composition increase the financial reporting quality by decreasing the total report lags. It means that when independent directors have influence in taking timely decision and firms release financial report in early time. Board independent directors has no impact on the financial reporting quality.*

KEY WORDS. *Independent director, Financial reporting, Quality of financial reporting, Listed firms*

Date of Submission: 28-01-2020

Date of Acceptance: 09-02-2020

I. INTRODUCTION

The corporate governance advises on the structure of the boards and, more specifically, on the desirable independent governance (Aguilera and Cuervo-Cazurra, 2009; Crespi-Cladera and Pascual-Fuster, 2014). In the United States, a majority of the independent board members is required in the structure of board of directors of companies.

Traditionally, the literature has highlighted three core tasks of management board which are creating valuable links for the firm, getting advice on strategic decisions, and monitoring senior management (Hillman and Dalziel, 2003, Pugliese et al., 2009). The monitoring activity is one of the important tasks of independent directors, which is crucial in monitoring the financial reporting process (Anderson, Mansi and Reeb, 2004). In theory, independent directors are less compatible with management and can better protect the interests of shareholders, and therefore can be considered as a key factor in ensuring the effective monitoring of management behavior (Fama, 1980, Fama & Jensen, 1983). It is, therefore, assumed that independence increases the quality of the boards by increasing their monitoring capabilities.

Despite being a critical issue, it is still difficult to define the concept of independent director. Parallel to many international organizations, the New York Stock Exchange Listed Company Handbook (NYSE, 2010) apprises that an independent director should not have a "material relationship" with the company traded on the stock exchange, either directly or as a partner, shareholder or officer. In accordance with this definition, most of the previous studies have used an agency perspective (Fama & Jensen, 1983), independent directors are expected to have a very important management mechanism to monitor management behaviour and reduce agency costs. In a dispersed proprietary scenario, such as the US context, these directors become more important in protecting the interests of shareholders (Yoshikawa, Zhu and Wang, 2014).

However, independent directors may not develop monitoring activities in the same way. Certain features of independent directors can increase / threaten their ability to follow. In this study, we focus on the experience gained by board members through a long-standing subsidiary of board members and a board of directors through expertise.

The purpose of this paper is to examine how the terms of office of independent board and the number of external directors can affect the monitoring role of the board. This assumes that both independent and external directors can determine the way independent directors develop their monitoring tasks. This study focuses on the monitoring of the financial reporting process, especially by analysing the impact of board independence on the quality of earnings. The boards are an important part of the financial reporting process, and the literature suggests that independent managers should limit accounting manipulations (Peasnell, Pope, & Young, 2005). Presents study depicts an interesting environment because in recent years Pakistan and India, regulators have introduced stronger responsibilities for independent directors. This may lead independent directors to place greater emphasis on monitoring tasks. Since the directors' choice has a potential externality problem, we use a two-step least squares (2SLS) approach to improve the empirical analysis. After conducting various robustness checks and sensitivity analyses, we have concluded that independent managers have improved supervisory oversight and improved quality of the financial reporting process, thus leading to a reduction in agency cost. However, this association is only offered for the term of office of certain directors and for external directorships. Our findings indicate that long-term affairs and high number of directors reduce their ability to monitor. We expanded the previous researches by stressing on the effectiveness of personal characteristics of independent directors. Accordingly, various personal characteristics of independent directors were taken in account to examine the influence on monitoring activities.

The board consists of diverse types of management, differentiated between executive members, domestic and non-executive directors or external ones; the second of which is then divided into two categories; proprietary and independent. Later, to understand the nature of this research which focuses on independent directors, we will firstly describe each of the directors who form the Board of Directors in a short and concise manner. According to CUBG (2006), directors who are equally or legally stipulated as statutory shareholders or shareholders are classified as private (CNMV, 2006). Internal or senior managers are managers who serve senior managers or employees of the company or group and independent directors are appointed by keeping in view their professional and personal qualities.

While we agree that the existence of independent board members has some benefits for the board of directors, we would like to note that companies and regulators must emphasize on personal characteristics of these independent directors.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Regulatory agencies around the world are increasingly focusing on director independence as a mechanism to increase the transparency, accountability and efficiency of corporate governance (Aguilera, 2005). To improve corporate governance mechanisms, reformers often suggested adopting initiatives designed to strengthen the independence of boards (Bebchuk and Weisbach, 2010). According to the rules of governance, to determine that the board is independent, the board must confirm that the director does not have a "material relationship" with the company directly or as a member of a shareholder, a shareholder or a body. In line with this rule, international governance rules have also supported most independent directors on the board of directors.

Consistent with the agency theory (Fama & Jensen, 1983; Jensen and Meckling, 1976), independent managers develop a monitoring function that is crucial to reducing possible conflicts between managers and shareholders. Independent directors may be willing to monitor managers more closely than other directors, even from outside (Pucheta-Martínez, 2015). Monitoring activities, which may include evaluating duties performed by senior management and the CEO, and evaluating the company strategy, will ensure that the management minimizes the costs that will arise when self-interest is sustained at the expense of the interests of stakeholders. Dalziel, 2003). These activities are in the process of monitoring the financial reporting process. Indeed, empirical evidence often suggests a positive relationship between board independence and the quality of the financial reporting process. A meta-analysis conducted in a few countries suggests that more board independence may limit earnings management (García-Meca & Sánchez-Ballesta, 2009). These authors see that independent executives in Anglo-American countries are more effective in hindering earnings management. Some findings supported these findings. Klein (2002) points out that the major US companies listed in the S & P 500 provide more neutral financial statements if the relevant corporate governance structures are set independently of management.

Peasnell et al. (2005) found that more executive board independence reduces the incidence of earnings management. Moreover, previous research has documented that larger and more visible firms have facilitated the monitoring of independent managers and have a richer information environment and a reduction in earnings management (Chen, Cheng and Wang, 2015).

The previous literature, which examines the role played by independent directors, tends to focus on the proportion of managers declared independent (Crespí-Cladera & Pascual- Fuster, 2014). However, the effectiveness of the development of the duties of the directors may depend on their expertise, experience and

motivation (Aguilera and Cuervo-Cazurra, 2009). For example, a high level of motivation and participation can lead to increased effectiveness of independent managers in the development of monitoring tasks.

In parallel studies such as Baysinger and Butler (1985), Daily and Dalton (1993), Barnhart (1994) and Macvey (2005) reveal that there should be independent directors on both the Board and the Audit Committee as it affects the quality of financial information positively. Thus, the main result of these studies is that the increasing quality of financial information resulting from the increase of independent directors' participation in the Board, preserves the interests of shareholders and avoids opportunistic management behaviour.

In contrast, Jensen and Meckling (1976) and Bhagat and Bolton (2008) show that the number of independent directors in the Board of Directors negatively affects the quality of financial reporting. These conclusions can only be justified as the result of the distinction between the interests of the owners and managers, as well as the lack of information about the key corporate aspects of the managers at the same time, only with the existence of agency problems.

Hermalin and Weisbach (1991) and Dalton (1998), reported the absence of a meaningful relationship between the quality of financial reporting and independent board members. They point out that the structure of the Board is of little importance to the ethos of corporate governance, that is, whether there is little or no independent involvement in the Board of Directors.

The agency theory includes suggestions for reform that will include a specific independent board member in the Board of Directors. Undoubtedly, this is a reasonable action that will lead to the independence of the Board of Directors, not only about external events, but also on the internal proposals of the management team and especially the chief executive. In addition, transparency should be the underlying principle behind the Board's activities to build trust and improve the quality of financial information for external users. In this way, it helps companies to create a credible image. Finally, agency theory sees the management board as the primary mechanism for the management mechanism; indicating that the majority of the managers must be independent of the management and that the main purpose of these managers must be the controls over the managers.

Fame (1980) and Jensen et al. (1983) defines the existence of independent directors as a mechanism to increase the effectiveness of the supervisory role of the Board of Directors to monitor managers. The idea behind this work is that the structure of the Board is made up of independent directors, mainly employees or non-employees. In this way, accounting information can be prevented from being elaborated in favor of the interests of the individuals in order to obtain benefits. In short, the authors document that there is a meaningful relationship between the features of the Board, which is largely composed of independent directors, and the integrity of accounting information.

Mace (1986) concluded that the independent directors are not only concerned with the management independently but also with the decisions taken on the basis of their experience and knowledge, as well as with the supervisory role of the Board of Directors. In this sense, the researcher seeks to demonstrate the positive effects of the large number of independent directors and financial reporting quality on the Board. Mace (1986) notes that the presence of independent directors in the Board of Directors is more appropriate and reliable for financial information, with the understanding that financial reporting and transparency will be reflected at a higher level as the existence of the same position increases in the Board of Directors.

Eisenberg et al. (1987) attempted to confirm that a Board composed mainly of independent directors does not affect the quality of financial information and sets this as a comparative hypothesis. The authors demonstrate the existence of a negative and insignificant relationship between higher percentage of non-executive directors, independent independence, and presentation of financial information. In short, they document a high percentage of directors who have a really positive influence, enhancing the quality of accounting information. According to the researchers, external directors are mainly independent from management, while internal directors are well informed about the company. In short, these authors define the independent executives with the ability or power to assist in the supervision and facilitation of financial information as members of the Board of Directors.

In the Spanish context, García Osma and Gill de Albornoz (2007) argue that the composition of the Board and the existence of the Audit Committee affect the quality of financial information published by Spanish stock exchange companies. Findings from this study reveal that there is a positive relationship between the quality of accounting information and the quality of the Board and the structure of the Board, without the Audit Committee being an important asset. For this reason, this study considers that the growing presence of senior managers, especially independent directors, may be a good step to publish financial information with high transparency and reliability.

Gisbert et al. (2011) shows that the amount of accounting information provided voluntarily by the company is high, and that this information, which is more reliable and reliable, comes from among other things, professional reputation of independent managers in the Board of Directors. Therefore, an effective board structure is closely related to the improvement in financial reporting quality. Similarly, effective management control can only be performed by a person who is not entirely interested in the management team. The authors,

however, assume that there is a positive relationship between the proportion of independent directors in the Board of Directors and the voluntary information provided by the companies. Despite the findings, the results have led to the contradiction of the thesis in question. Therefore, the results show that a higher percentage of independent directors in the Board of Directors does not have a positive impact on the voluntary disclosure of information, and therefore does not contribute to the increase in credibility and quality.

According to Ensen (1993), the board is responsible for the internal control systems of a company and has ultimate responsibility for the operation of the company. The boards define the rules for senior management (CEO / executive director) on recruitment, redundancy and compensation plans and make high-level recommendations. Fama and Jensen (1983) refer to the functions of approval of project proposals proposed by the government and monitoring of the implementation of these projects.

Hermalin and Weisbach (2003) argue that boards are not present only to meet legal requirements because if so, their composition will be legally demanded, and in practice different compositions are observed. The authors claim that the board composition would only be a lobby to remove any necessity if the laws were the result of somewhere in the world.

For Hermalin and Weisbach (2003), boards are a market solution that helps mitigate agency problems that damage large organizations. Regardless of their virtues or problems, the board is part of the market settlement of issues related to contracts.

According to Alves (2011), managers' ability to manage the reported results of an organization is limited to the effectiveness of internal controls, including the board of directors. Boards are responsible for monitoring the quality of the information contained in the financial statements and thus for controlling their behaviour to ensure that the behaviour of managers is consistent with the interests of stakeholders.

It may also be necessary to become familiar with business knowledge and business practices to better monitor the reporting process (Manzaneque, Priego and Merino, 2016). Monitoring financial reporting practices requires special expertise. In this article, we argue that the terms of office of independent directors and their work at more than one board may provide additional resources to such directors, such as motivation, expertise and experience. For this reason, these features will affect how the reporting process is tracked. We hope that the terms of office of the directors and the number of additional directorships they have will change the relationship between board independence and quality of knowledge. A theoretical review of the research on the effects of these features on the monitoring tasks of the directors is presented in the following.

2.1. Director tenure and board monitoring

Director's office has received great interest from international organizations and academicians.

Working within a company allows managers to gain more expertise and gain valuable information about the firm and the business environment (Kor & Sundaramurthy, 2009; Vafeas, 2003). This experiential knowledge is crucial to effectively develop the functions of board members (Kor & Mahoney, 2000; Westphal & Bednar, 2005), because a board member without knowledge has to face difficulty while influencing the decision process (Zald, 1969).

In this respect, previous research suggests that effective monitoring is a potentially gifted skill, and that boards with more work provide better monitoring (Anderson et al., 2004). Moreover, experience at a board enables independent managers to have more information about the board and the firm and more effectively focus on governance issues rather than issues related to group processes (Eisenhardt & Schoonhoven, 1990). New managers who are not familiar enough with their new responsibilities and colleagues are more prone to senior management pressures (Malette & Fowler, 1992). Independent directors with longer jobs can be expected to improve their monitoring tasks, including reviewing financial statements, audit procedures and internal control mechanisms. However, directors who work for extended periods of time reduce their independence ratings and monitoring abilities (Hillman, Shropshire, Certo, Dalton and Dalton, 2011). Long-standing resident independent directors can become closer to the manager, and as a result the development of their duties can be dangerous (Vafeas, 2003). This author highlights that, in time, directors are more likely to be co-opted by management as they become less mobile and less employable. Extended tenure can also reduce intragroup communications and thus lower the quality of monitoring decisions (Ben-Amar, Francoeur, Hafsi, & Labelle, 2013). Furthermore, directors with very long tenures are influenced by their own beliefs and schemes, and therefore, their knowledge of the firm could eventually become a less valuable resource in the monitoring process (Barroso, Villegas, & Pérez-Calero, 2011).

At present, there are no special regulations in Pakistan and India that restrict the term of office of the directors. The Institutional Investors Council (CII) rejects the exact time limits, as long-term managers often develop the supervisory capabilities of a board and these limits can reduce the critical expertise of boards. However, in recent years, shareholder activist groups have started a debate about the role of director. The National Association for Corporate Governance (NACD, 1996) emphasized the need for managers to change

after a maximum of 15 years of service. In addition, State Street Global Advisors' voting policy on the directorship focuses on what the board defines as a need for refreshment (State Street Global Advisors, 2014).

According to previous theoretical arguments, managers should have worked long enough to learn the firm to ensure that they are effective in their monitoring role, not in jeopardizing their independence and monitoring. Therefore, we assume that independent managers' duty cycle will affect how they monitor the financial reporting process. For this reason, we estimate that the duration of independent executives' duties will affect the relationship between board independence and quality of information.

2.2. Outside directorships and board monitoring

The number of directors has been a matter of debate and is increasingly attracting interest in economic research (Buchwald, 2017). On the one hand, managers with multiple assignments contribute to improving the quality of the board (Fama & Jensen, 1983). These managers may have richer experiences and connections and may have access to a variety of resources that can help improve the monitoring role (Jiraporn, Kim and Davidson, 2008; Perry & Peyer, 2005; Sarkar & Sarkar, 2009). They acquire a wide range of information that can be crucial in improving the decision-making process in the organization they are developing. They can learn about different management styles and business practices (Perry and Peyer, 2005) and gain valuable skills to improve the monitoring process (FernándezMéndez, Arrondo García, & Pathan, 2017). In addition, the increase in the number of directors increases the reputation of directors. This 'reputation impact' will encourage managers to better develop their duties (Keys and Li, 2005). In the literature, it is argued that many directors have shown their responsibility and that they act as an important incentive for managers to develop their reputation as monitoring specialists (Fama & Jensen, 1983; Masulis & Mobbs, 2011).

However, when the number of directors is too high, the monitoring role played by directors with multiple appointments can be compromised. Serving on many boards can reduce the commitment of the directors (Lei & Deng, 2014) as they can limit the management's time, attention and preparation for board meetings, thus narrowing the monitoring capabilities of these directors (Carpenter & Westphal, 2001; Harris & Shimizu), 2004).

Previous evidence suggests that board members with too many directors may be less effective in monitoring the administration and reducing agency costs (Ferris, Jagannathan and Pritchard, 2003). The monitoring of the financial reporting period may be more due to limitations.

There is an ongoing debate in the United States about the need to set a mandatory limit on the number of directors a board member may have, as well as the majority of developed countries. Twenty years ago, NACD (1996) criticized companies with multiple directors. The Corporate Governance Principles (Business Roundtable, 2012) does not impose any limitation on the number of members of the board of directors, but that many services may interfere with the individual's ability to fulfil his / her responsibilities. In addition, associations such as CII state that it is necessary to determine and publish guidelines on how much the directors of the companies can serve.

Consistent with earlier theoretical arguments, we assume that more than one executive ship develops the ability to monitor the financial reporting process at lower levels of independent board members, but many directors can reduce this monitoring capability. For this reason, we estimate that the number of external directors will affect the relationship between board independence and information quality.

2.3 Quality of Accounting Information.

Since the 1960s, the growth of the capital market has expanded the area of accounting research, especially in North America and due to the development of financial theories. The information contained in the figures recorded through accounting has therefore been the subject of numerous studies under an information approach (Lopes, 2002).

The seminal studies of Ball and Brown (1968) and Beaver (1968) provide evidence that accounting information is reflected in stock prices and that investors value accounting.

However, according to Brown, He and Teitel (2006), the validity and reliability of the financial statements prepared by this reflex management can be affected. The earnings reported on the financial statements are the joint responsibility of the managers and auditors.

In Brazil, Lopes and Walker (2008) and Antunes et al. (2009) assess the quality of accounting information and corporate governance. Lopes and Walker (2008) use Brazil's corporate governance index and conclude that the quality of earnings of well-governed cross-listed Brazilian companies is like the quality reported for companies in developed common law countries.

Antunes et al. (2009) investigates the impact of various levels of the UN on the quality of accounting information based on a sample covering 1996-2006. In general, they have concluded that different levels do not affect quality. The authors only observe conservatism when they use a wider governance index.

By providing empirical evidence, Gabriel (2011) demonstrates that the corporate governance structure can positively impact the quality of accounting information that a company produces and discloses to its shareholders.

Some model suggests that stock price (market value) is a variable that can be explained under the hypothesis that current earnings contain information about future net cash flows (Kothary & Zimmermann, 1995). According to Habib and Azim (2008), the reason for including equity in the association model assumes that the book value of equity is a proxy for the present value of the expected normal future profitability, and that it represents the liquidation value of a company.

According to Sarlo Neto (2009), information is a measure of the intensity of the relationship between accounting information and stock advances and is generally represented by the relationship between share price returns and accounting earnings. The stronger the relationship between stock returns and accounting earnings, the greater the gain in information power (Sarlo Neto, 2009).

The central idea in accounting technology of accounting earnings is that it is used as useful information to correct investors' accounting earnings expectations. For this reason, if accounting earnings contain additional information (surprises), it will cause changes in investor expectations and in the company's share price and market value; otherwise, it will not have an impact (Sarlo Neto, 2009).

III. THEORETICAL FRAMEWORK.

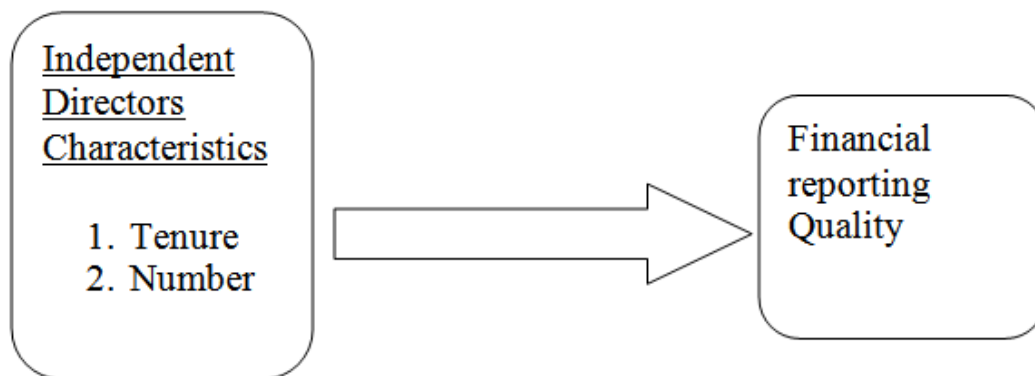
Agency Theory

According to Jensen & Mackling (1976), the agency theory has a strong relationship between shareholders and managers, and shareholders give responsibility for conducting general business on behalf of shareholders. There is no gap between them and there is a relationship between the agent and the managers', and Jensen (1993) concludes that the agency theory explains the general view of the Board of Directors, as well as the general view of the major shareholders and top management. The agency theory also notes that principals protect managers and that the other side offers great incentives and benefits to their intermediaries, and that it costs more to reduce agency costs the least. According to Al-Ajmi (2008), agency issues can be addressed from corporate governance practices.

According to Cohen, Krishnamoorthy & Wright (2004), the agency theory is a model of effective corporate governance. More importantly, Shukeri & Islam (2012) stated that corporate governance is a system in which companies are managed and monitored to maintain their existence. Such additional reforms have been developed for the development of effective corporate governance, such as the independence of board members, the establishment of audit professional committees, frequent audit committee meetings, and the mandatory minimum number of members of the audit committee.

IV. CONCEPTUAL FRAME WORK.

The conceptual framework of our research is given below,



3.1.1 Research Hypothesis.

In our research work two hypothesis is developed that support our study that are given below,

H1: The relationship between board independence and financial information quality is influenced by the tenure of independent directors.

H2: The relationship between board independence and financial information quality is influenced by the number of directorships of independent directors.

3.2 Research design

3.2.1 Sample

Information about directors was collected from the Investor Responsibility Centre. We merged director data with financial information, which was extracted from CompStat. Our final sample includes 100 firms listed on the KSE over the period 2011–2017. Several observations were initially removed because of missing data concerning some variables included in the analysis. Our analysis focuses on a single country to avoid dealing with differences in the institutional setting and regulation across countries (Dalziel, Gentry, & Bowerman, 2011). Our sample provides a setting particularly relevant because we examine a post-SOX period in which independent directors are expected to make a significant contribution to their boards since they are subject to stronger responsibilities (Bhagat & Bolton, 2013).

3.2.2 Variables

3.2.2.1 Dependent variable

Dechow, Ge, and Schrand (2010) find that no measure of earnings quality is superior for all decision models. However, all proxies for earnings quality rely on reported accrual-based earnings and thus are based on earnings management. This focus is in line with the comprehensive survey of Dechow and Skinner (2000), who provide both academic- and practitioner-related evidence of earnings management. In addition, McNichols (2000) argues that the main issue in earnings management is the measure of discretionary accruals (DACC). The literature has developed a number of models with the aim of detecting the discretionary component of accruals. We utilise DACC as a proxy for financial reporting quality (Francis, 2011; Kusnadi et al., 2016). To measure abnormal accruals, we use the performance-adjusted cross-sectional Dechow–Dichev model (Dechow & Dichev, 2002). Our measure of accruals quality is calculated as the absolute value of the residuals of the cash-flow model. In line with the previous literature (Capalbo, Frino, Mollica, & Palumbo, 2014; Kwon & Yin, 2015), we estimate our accruals model by year and for each two-digit Standard Industrial Codes (SIC). We require at least six firm observations per year with usable data in each SIC group.

3.2.2.2 Treatment variables

We examine the role of independent directors in the monitoring of the financial reporting process. Thus, in order to test our hypotheses, board independence is used as the main explanatory variable in the statistical models. In line with previous studies (Alves et al., 2015; Ting, 2016; Zhang, 2012), the proportion of independent directors on the board is considered to measure board independence (BINDEP). We follow the above-mentioned definition of independence provided by the NYSE regulation.

In accordance with previous research, independent directors' tenure (BTENURE) is calculated as the average number of years that independent directors spend on a particular board (Barroso et al., 2011; Dalziel et al., 2011; Kor & Sundaramurthy, 2009).

Following prior literature (Lei & Deng, 2014; Perry & Peyer, 2005; Sarkar & Sarkar, 2009), we compute the number of additional directorships (OBOARDS) as the average number of external directorships held by independent directors.

A set of control variables is also considered due to their potential influence on the quality of financial information. First, in accordance with previous research (Ianniello, 2015; Kusnadi et al., 2016; Sáenz & García-Meca, 2014), three board-related variables are included: board size, CEO duality and board age. Board size (BSIZE) is measured by the total number of members on the board. CEO duality (DUAL) is determined by a dummy variable that takes value 1 if the CEO is also the chairperson of the board and 0 otherwise. Board age (BAGE) is measured as the average age of directors within a board. In addition, some financial variables were added: firm size, leverage and firm growth. Firm size (SIZE) is calculated as the log of total sales; leverage (LEV) is calibrated by the ratio of total debt to total assets; and firm growth (GROWTH) is defined as the annual variation in sales. Finally, we also use year and industry dummies to control for both time and industry effects (e.g. Bermig & Frick, 2010; Lindstaedt, Wolff, & Fehre, 2011).

Once total accruals are estimated and the discretionary component, we analyse the relationship between the DACC and our independent variables.

Where β_0 is the intercept and β_i is the coefficient of each independent variable. The sub-indexes i identifies the individual and the sub-index t identifies the year and it, the stochastic error.

Model

$$FRQ_{it} = \alpha_0 + \beta_1 BIDN_{it} + \beta_2 BIDT_{it} + \varepsilon_{it}$$

FRQ=Financial report quality

BIDN=Independent director in board in Numbers

BIDT=Independent directors' tenure

Table 1: Description of variables

	Abbreviation	Variable Definition
Total Report lags	TRL	Total report lag is measured in number of days from financial year end to release of financial report to general public.
Board independence	BINDE	Percentage of independent directors within a board
Board tenure	BIDT	Average number of years of independent directors on a board

Our empirical approach can potentially be affected by an endogeneity problem. In theory, board structure may mitigate the misuse of DACC, but also accounting quality may influence the weight of independents on the board. Independent directors tend to be selective when choosing board assignments since they prioritise their efforts where their reputation benefits are greatest (Masulis & Mobbs, 2014). In order to address this issue, recent research (Bushman, 2009; Field, Lowry, & Mkrtychyan, 2013) has employed 2SLS. This methodology requires the use of instrumental variables that should be highly related to the endogenous independent variable and unrelated to the dependent variable (Larcker & Rusticus, 2010). Consistent with the previous literature, we adopt a 2SLS approach. In our empirical analysis, we use three instrumental variables for board independence: (1) the size of the board, (2) the size of the firm and (3) the mean age of directors. The validity of these instruments is confirmed since they comply with the previous requirements, taking into consideration the values obtained from the Sargan test, which are reported in the next section. The first instrument is the size of the board.

Larger boards are likely to have more networks and greater external connections (Kiel & Nicholson, 2003), and they also have more resources at their disposition. These connections and resources may result in better capabilities to recruit independent directors. In relation to the second instrumental variable, larger firms are likely to have more independent directors on their boards (Anderson et al., 2004). Finally, older directors could also tend to be independent since they are more likely to be retired and have fewer time constraints, thereby leading them to serve on more boards (Field et al., 2013). Board size refers to the number of board members, firm size is calculated as the logarithm of sales and board age is computed as a dummy variable which takes the value 1 for boards where directors, on average, are over 60.

V. RESULTS

4.1. Descriptive statistics.

Variables	BIDT	BIND	TRL
Mean	4.229213	1.746067	108.7371
Median	5.000000	1.000000	112.0000
Maximum	24.000000	13.000000	613.0000
Minimum	0.000000	0.000000	51.00000
Std. Dev.	3.241976	1.869808	30.96082

Board independent director has mean value 1.746, it means that every board composition has 2 independent directors in total board composition that follow the code of the corporate governance of Pakistan 2012. According to code of the corporate governance 2012 that at least 2 independent directors should be in total board composition mandatory. In our descriptive statistics board independent director tenure constantly in years is 4 year and total report lags has mean value 108 days, it means that companies take 108 days from financial year end to release their financial report to general public.

4.2 Multivariate analysis.

The correlation matrix is given below

Variable	TRL	BIND	BIDT
TRL	1.000		
BIND	0.034	1.000	0.312
BIDT	0.016	0.312	1.000

The correlation between total report lags and Board independence is 0.034 that is less than 80% it means that there is no existence of the correlation problem between them. The correlation between total report lag and board independence director's tenure is 0.016, it means that there is no correlation problem in between them. The co relation between board independence and board independent director tenure is 0.312 that shows 32% correlation that is below the standers.

Pooled OLS results are given below,

Variable	Coefficient	T-Statistics	P-Value
BIND	0.548052**	0.635489	0.0254
BIDT	0.061859	0.124365	0.9011

In our results presence of the independent directors in total board composition increase the financial reporting quality by decreasing the total report lags. It means that when independent directors has influence in taking timely decision and firms release financial report in early time. Our results are consistent with the Anjinkya et al. (2005).

Board independent directors has no impact on the financial reporting quality.

The endogeneity test demonstrated that discretionary values of the report lags and board characteristics like board independence and director's tenure are not simultaneously determined. This means that OLS estimates is not in fact biased and inconsistent. The result of the Housman test that is shown at the end in table 1 that there is no existence of the endogeneity problem between the estimators.

VI. DISCUSSION AND CONCLUSION.

Shareholders are not performing the monitoring behaviour directly and rely on the board of directors to perform the such monitoring activities (Jensen 1993). When addition of the independent directors in the total board composition the mechanism for controlling and action of the management may be strong (Fama 1980). According to this paper, previous literature suggested that independent director in total board composition may help in protection of the shareholders and decrease the conflicts of interest between investors and the management (Dechow 2002).

When monitoring and controlling may strong then the firms release the financial report to general public early that is more effective for the investors and other decision makers and this type of controlling create investor confidence higher and higher. Therefore, our paper examines the weather board independence improve the financial reporting quality by using the lags. By using the data of the 100 firms from 2011 to 2018 we conclude that when there is independent directors in board that is very useful for decision making timely and correction of the errors are solved in short time and that's why firms release financial report timely that increase the financial reporting quality.

The finding of our study makes the following contribution. In Pakistan that has underdeveloped economy and has week corporate governance in non-financial firms but corporate governance code are followed in some situation not in all. In financial sector there is strong code of corporate governance that is monitored and controlled by two authorities SECP and State bank of Pakistan. Our results indicated that outside directors have significant impact that decrease the lags and increase the financial reporting quality. When firms hire more outside directors with more experience then there financial reporting quality may be better and better.

5.2 Practically Implementations.

By using this type of the research firm can follow the code of the corporate governance led down by the government of Pakistan and firm can monitor there performance by seeing the financial reporting quality. Government and other regulatory agency should monitor the firm's behaviour in total board composition by the addition of the independence director in their board.

5.3 Limitation of study

Some other variables regarding the board composition like board expertise, board member remuneration and board experience and other corporate governance variable are not taken because of limitation of availability of the data in their financial reports.

5.4 Future research suggestion.

Corporate governance and quality of financial reporting may be the future topic for research. Some research should be conducted on financial reporting quality by using auditor characteristics and other corporate governance variables. Also, some research should be conducted on some other measure of the financial reporting quality like earning management accruals.

REFERENCES

- [1]. Aguilera, R. (2005). Corporate governance and director accountability: An institutional comparative perspective. *British Journal of Management*, 16, S39–S53.
- [2]. Aguilera, R., & Cuervo-Cazurra, A. (2009). Codes of good governance. *Corporate Governance: An International Review*, 17, 376–387.
- [3]. Alves, P., Couto, E. B., & Francisco, P. M. (2015). Board of directors' composition and capital structure. *Research in International Business and Finance*, 35, 1–32.

- [4]. Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, 37(3), 315–342.
- [5]. Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review*, 14(2), 107–125. doi:10.1111/corg.2006.14.issue-2
- [6]. Barroso, C., Villegas, M. M., & Pérez-Calero, L. (2011). Board influence on a firm's internationalization. *Corporate Governance: An International Review*, 19(4), 351–367.
- [7]. Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting Review*, 71(4), 443–465.
- [8]. Bebchuk, L. A., & Weisbach, M. S. (2010). The state of corporate governance research. *Review of Financial Studies*, 23(3), 939–961. doi:10.1093/rfs/hhp121
- [9]. Ben-Amar, W., Francoeur, C., Hafsi, T., & Labelle, R. (2013). What makes better boards? A closer look at diversity and ownership. *British Journal of Management*, 24(1), 85–101.
- [10]. Bermig, A., & Frick, B. (2010). Board size, board composition, and firm performance: Empirical evidence from Germany. Germany: University of Paderborn. (Working Paper).
- [11]. Bhagat, S., & Bolton, B. (2013). Director ownership, governance, and performance. *Journal of Financial & Quantitative Analysis*, 48(1), 105–135. doi:10.1017/S0022109013000045
- [12]. Buchwald, A. (2017). Competition, outside directors and executive turnover: Implications for corporate governance in the EU. *Managerial and Decision Economics*, 38(3), 365–381.
- [13]. Bushman, R. M. (2009). Weak governance may be optimal governance: A discussion of corporate governance and backdating of executive stock options. *Contemporary Accounting Research*, 26(2), 447–451. doi:10.1506/car.26.2.5
- [14]. Business Roundtable. (2012). Principles of corporate governance. Washington, DC: Business Roundtable.
- [15]. Capalbo, F., Frino, A., Mollica, V., & Palumbo, R. (2014). Accrual-based earnings management in state owned companies: Implications for transnational accounting regulation. *Accounting, Auditing & Accountability Journal*, 27(6), 1026–1040. doi:10.1108/AAAJ-06-2014-1744
- [16]. Carpenter, M. A., & Westphal, J. D. (2001). The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decisionmaking. *Academy of Management Journal*, 44, 639–660. doi:10.2307/3069408
- [17]. Chen, X., Cheng, Q., & Wang, X. (2015). Does increased board independence reduce earnings management? Evidence from recent regulatory reforms. *Review of Accounting Studies*, 20(2), 899–933. doi:10.1007/s11142-015-9316-0
- [18]. Cohen, J. R., Hoitash, U., Krishnamoorthy, G., & Wright, A. M. (2014). The effect of audit committee industry expertise on monitoring the financial reporting process. *The Accounting Review*, 89(1), 243–273. doi:10.2308/accr-50585
- [19]. Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all? *Journal of Financial Economics*, 87(2), 329–356. doi:10.1016/j.jfineco.2006.08.008
- [20]. Cooper, D. R., & Schindler, P. S. (2003). *Business research methods* (8th ed.). Boston, MA: McGraw Hill.
- [21]. Crespi-Cladera, R., & Pascual-Fuster, B. (2014). Does the independence of independent directors matter? *Journal of Corporate Finance*, 28, 116–134. doi:10.1016/j.jcorpfin.2013.12.009
- [22]. Dalziel, T., Gentry, R. J., & Bowerman, M. (2011). An integrated agency–resource dependence view of the influence of directors' human and relational capital on firms' R&D spending.
- [23]. *Journal of Management Studies*, 48(6), 1217–1242. doi:10.1111/j.1467-6486.2010.01003.x
- [24]. Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2–3), 344–401. doi:10.1016/j.jacceco.2010.09.001
- [25]. Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77(S–1), 35–59. doi:10.2308/accr.2002.77.s-1.35
- [26]. Dechow, P. M., & Skinner, D. J. (2000). Earnings management: Reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons*, 14(2), 235–250.
- [27]. Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research*, 13(1), 1–36. doi:10.1111/care.1996.13.issue-1
- [28]. Eisenhardt, K. M., & Schoonhoven, C. B. (1990). Organizational growth: Linking founding team, strategy, environment, and growth among US semiconductor ventures, 1978–1988. *Administrative Science Quarterly*, 35, 504–529. doi:10.2307/2393315
- [29]. Fama, E., & Jensen, M. (1983). Agency problems and residual claims. *The Journal of Law and Economics*, 26, 327–349. doi:10.1086/467038
- [30]. Fama, E. F. (1980). Agency problems and the theory of the firm. *The Journal of Political Economy*, 88, 288–307. doi:10.1086/260866
- [31]. Fernández Méndez, C., Arrondo García, R., & Pathan, S. (2017). Monitoring by busy and overlap directors: An examination of executive remuneration and financial reporting quality. *Spanish Journal of Finance and Accounting*, 46(1), 28–62. doi:10.1080/02102412.2016.1250345
- [32]. Ferris, S. P., Jagannathan, M., & Pritchard, A. C. (2003). Too busy to mind the business? Monitoring by directors with multiple board appointments. *The Journal of Finance*, 58(3), 1087–1111. doi:10.1111/1540-6261.00559
- [33]. Fich, E., & Shivdasani, A. (2006). Are busy boards effective monitors? *The Journal of Finance*, 61, 689–724.
- [34]. Field, L. C., Lowry, M., & Mkrtychyan, A. (2013). Are busy boards detrimental? *Journal of Financial Economics*, 109(1), 63–82. doi:10.1016/j.jfineco.2013.02.004
- [35]. Francis, J. R. (2011). A framework for understanding and researching audit quality. *Auditing: A Journal of Practice & Theory*, 30(2), 125–152. doi:10.2308/ajpt-50006
- [36]. Francoeur, C., Labelle, R., & Sinclair-Desgagné, B. (2008). Gender diversity in corporate governance and top management. *Journal of Business Ethics*, 81(1), 83–95.
- [37]. García-Meca, E., & Sánchez-Ballesta, J. P. (2009). Corporate governance and earnings management: A meta-analysis. *Corporate Governance: An International Review*, 17, 594–610.
- [38]. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2008). *Análisis multivariante*. Madrid: Prentice Hall Iberia.
- [39]. Harris, I. C., & Shimizu, K. (2004). Too busy to serve? An examination of the influence of over boarded directors. *Journal of Management Studies*, 41(5), 775–798.

- [42]. Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource-dependence perspectives. *Academy Management Review*, 28(3), 383–396.
- [43]. Hillman, A. J., Shropshire, C., Certo, S. T., Dalton, D. R., & Dalton, C. M. (2011). What I like about you: A multilevel study of shareholder discontent with director monitoring. *Organization Science*, 22, 675–687. doi:10.1287/orsc.1100.0542
- [44]. Ianniello, G. (2015). The effects of board and auditor independence on earnings quality: Evidence from Italy. *Journal of Management & Governance*, 19(1), 229–253.
- [45]. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
- [46]. Jiraporn, P., Kim, Y. S., & Davidson, W. N. (2008). Multiple directorships and corporate diversification. *Journal of Empirical Finance*, 15, 418–435.
- [47]. Keys, P. Y., & Li, J. (2005). Evidence on the market for professional directors. *Journal of Financial Research*, 28(4), 575–589.
- [48]. Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review*, 11(3), 189–205.
- [49]. Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics*, 33(3), 375–400.
- [50]. Kor, Y. Y., & Mahoney, J. T. (2000). Penrose's resource-based approach: The process and product of research creativity. *Journal of Management Studies*, 37(1), 109–139.
- [51]. Kor, Y. Y., & Sundaramurthy, C. (2009). Experience-based human capital and social capital of outside directors. *Journal of Management*, 35(4), 981–1006. doi:10.1177/0149206308321551
- [52]. Kusnadi, Y., Leong, K. S., Suwardy, T., & Wang, J. (2016). Audit committees and financial reporting quality in Singapore. *Journal of Business Ethics*, 139, 197–214.
- [53]. Kwon, S. S., & Yin, J. (2015). A comparison of earnings persistence in high-tech and non-high-tech firms. *Review of Quantitative Finance and Accounting*, 44(4), 645–668.
- [54]. Larcker, D. F., & Rusticus, T. O. (2010). On the use of instrumental variables in accounting research. *Journal of Accounting and Economics*, 49(3), 186–205.
- [55]. Lei, A., & Deng, J. (2014). Do multiple directorships increase firm value? Evidence from independent directors in Hong Kong. *Journal of International Financial Management & Accounting*, 25(2), 121–181.
- [56]. Lindstaedt, H., Wolff, M., & Fehre, K. (2011). Frauen in Führungspositionen-Auswirkungen auf den Unternehmenserfolg. German Federal Ministry of Family, Senior Citizens, Women and Youth. Mallette, P., & Fowler, K. L. (1992). Effects of board composition and stock ownership on the adoption of “poison pills”. *Academy of Management Journal*, 35(5), 1010–1035.
- [57]. Manzanegue, M., Priego, A. M., & Merino, E. (2016). Corporate governance effect on financial distress likelihood: Evidence from Spain. *Spanish Accounting Review*, 19(1), 111–121.
- [58]. Masulis, R. W., & Mobbs, S. (2011). Are all inside directors the same? Evidence from the external directorship market. *The Journal of Finance*, 66(3), 823–872.
- [59]. Masulis, R. W., & Mobbs, S. (2014). Independent director incentives: Where do talented directors spend their limited time and energy? *Journal of Financial Economics*, 111, 406–429.
- [60]. McNichols, M. F. (2000). Research design issues in earnings management studies. *Journal of Accounting and Public Policy*, 19(4–5), 313–345. doi:10.1016/S0278-4254(00)00018-1
- [61]. National Association of Corporate Directors (NACD). (1996). Report of the NACD Blue Ribbon Commission on director professionalism. Washington, DC: NACD.
- [62]. New York Stock Exchange. (2010). Report of the New York Stock Exchange Commission on corporate governance New York: NYSE.
- [63]. Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Journal of Business Finance & Accounting*, 32, 1311–1346.
- [64]. Perry, T., & Peyer, U. C. (2005). Board seat accumulation by executives: A shareholder's perspective. *The Journal of Finance*, 60, 2083–2123. doi:10.1111/j.1540-6261.2005.00788.x
- [65]. Pucheta-Martínez, M. C. (2015). El papel del Consejo de Administración en la creación de valoren la empresa. *Spanish Accounting Review*, 18(2), 148–161.
- [66]. Pugliese, A., Bezemer, P.-J., Zattoni, A., Huse, M., Van den Bosch, F. A., & Volberda, H. W. (2009). Boards of directors' contribution to strategy: A literature review and research agenda. *Corporate Governance: An International Review*, 17(3), 292–306. doi:10.1111/corg.2009.17.
- [67]. Sáenz, J. S., & García-Meca, E. (2014). Does corporate governance influence earnings management in Latin American markets? *Journal of Business Ethics*, 121(3), 419–440.
- [68]. Sarkar, J., & Sarkar, S. (2009). Multiple board appointments and firm performance in emerging economies: Evidence from India. *Pacific-Basin Finance Journal*, 17, 271–293.
- [69]. Singhchawla, W., Evans, R., & Evans, J. (2011). Board independence, sub-committee independence and firm performance: Evidence from Australia. *Asia Pacific Journal of Economics & Business*, 15(2), 1–15.
- [70]. Spencer Stuart. (2009). Spencer Stuart board index, New York: Spencer Stuart.
- [71]. Spencer Stuart. (2011). Spencer Stuart board index, New York: Spencer Stuart.
- [72]. State Street Global Advisors. (2014). Board refreshment and director succession in investee companies, Boston: State Street Global Advisors.
- [73]. Ting, H.-I. (2016). Why do board members receive excess compensation? *Managerial and Decision Economics*, 37, 552–562. doi:10.1002/mde.2744
- [74]. Vafeas, N. (2003). Length of board tenure and outside director independence. *Journal of Business Finance & Accounting*, 30, 1043–1064. doi:10.1111/1468-5957.05525
- [75]. Westphal, J. D., & Bednar, M. K. (2005). Pluralistic ignorance in corporate boards and firms' strategic persistence in response to low firm performance. *Administrative Science Quarterly*, 50 (2), 262–298.
- [76]. Yoshikawa, T., Zhu, H., & Wang, P. (2014). National governance system, corporate ownership, and roles of outside directors: A corporate governance bundle perspective. *Corporate Governance: An International Review*, 22(3), 252–265.
- [77]. Zald, M. N. (1969). The power and functions of boards of directors: A theoretical synthesis. *American Journal of Sociology*, 75, 97–111. doi:10.1086/224747
- [78]. Zhang, L. (2012). Board demographic diversity, independence, and corporate social performance. *Corporate Governance: The International Journal of Business in Society*, 12(5), 686–700.

- [80]. Baysinger, B. and Butler, H. N. 1985. Corporate governance and the board of directors: performance effects of changes in board composition. *Journal of Law, Economics, and Organization*. 1, 101-124.
- [81]. Daily, C. M and Dalton, D. R. 1993. Board of directors leadership and structure: control and performance implications. *Entrepreneurship Theory & Practice*. 17, 65-81.
- [82]. Fama E.F. 1980. Agency problems and the Theory of the Firm. *Journal of Political Economy*. 88, 2, 288-307.
- [83]. Fama, E.F. and Jensen, M.C. 1983. Separation of ownership and control. *Journal of Law and Economics*. 26, 301-325.
- [84]. García-Osma, B. and Gill-Albornoz-Noguer, B. 2007. The Effect of the Board Composition and its Monitoring Committees on Earnings Management: evidence from Spain. *Corporate Governance: An International Review*. 15, 1413-1428.
- [85]. Gisbert, A. and Navallas, B. 2011. Corporate governance mechanisms and voluntary disclosure. The role of independent directors in the boards of listed Spanish firms. Working paper. Universidad Autónoma de Madrid.
- [86]. Jensen, M. C. and Meckling, W. H., 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*. 3, 305-360.
- [87]. Mace, M.L. 1986. *Directors, Myth and Reality*, Harvard Business School Press, Boston, MA.
- [88]. Weisbach, M. 1988. Outside directors and CEO turnover. *Journal of Financial Economics*. 20, 431-460.
- [89]. Jensen, M.C. (1993). The modern industrial revolution, exit and the failure Economics and Finance Review, 2 (6), 31-44.
- [90]. Hermalin, B. (2003). Weisbach M. Board of Directors as an Endogenously Determined Institution: Survey of the Economic Literature, 21(9), 7-26.
- [91]. Geraldes Alves, S. M. (2011). The effect of the board structure on earnings management: evidence from Portugal. *Journal of Financial Reporting and Accounting*, 9(2), 141-160.
- [92]. Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of accounting research*, 159-178.
- [93]. Brown Jr, W. D., He, H., & Teitel, K. (2006). Conditional conservatism and the value relevance of accounting earnings: An international study. *European Accounting Review*, 15(4), 605-626.
- [94]. Broedel Lopes, A., & Walker, M. (2008). Firm-level incentives and the informativeness of accounting reports: an experiment in Brazil.
- [95]. Agüero-Chapin, G., Varona-Santos, J., de la Riva, G. A., Antunes, A., González-Villa, T., Uriarte, E., & González-Díaz, H. (2009). Alignment-free prediction of polygalacturonases with pseudofolding topological indices: experimental isolation from *Coffea arabica* and prediction of a new sequence. *Journal of proteome research*, 8(4), 2122-2128.
- [96]. Gabriel, F. (2011). Impacto da adesão às práticas recomendadas de governança corporativa no índice de qualidade da informação contábil (Doctoral dissertation, Universidade de São Paulo).
- [97]. Kothari, S. P., & Zimmerman, J. L. (1995). Price and return models. *Journal of Accounting and economics*, 20(2), 155-192.
- [98]. Sarlo Neto, A. (2009). Relação entre a estrutura de propriedade e a informatividade dos lucros contábeis no mercado brasileiro (Doctoral dissertation, Universidade de São Paulo).
- [99]. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of law and economics*, 26(2), 301-325.

Tables.

Dependent Variable: TRL
 Method: Least Squares
 Date: 10/12/19 Time: 19:16
 Sample: 1 445
 Included observations: 445

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	107.7522	2.656577	40.56056	0.0000
BIDT	0.061859	0.497395	0.124365	0.9011
BIND	0.548052	0.862410	0.635489	0.0254
R-squared	0.001173	Mean dependent var		108.9708
Adjusted R-squared	-0.003346	S.D. dependent var		32.22767
S.E. of regression	32.28155	Akaike info criterion		9.793588
Sum squared resid	460607.6	Schwarz criterion		9.821215
Log likelihood	-2176.073	Hannan-Quinn criter.		9.804482
F-statistic	0.259599	Durbin-Watson stat		2.091823
Prob(F-statistic)	0.771478			