Corporate Governance

Does CEO duality give more influence over executive pay to the majority or minority shareholder? (A survey of Brazil)

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Abstract

Purpose – *The purpose of this paper is to focus on comparing the influence of majority and minority shareholders on executive compensation under conditions of CEO duality, examining majority and minority shareholder influences by measuring their investment and return activity. The paper seeks to uncover how CEO duality changes the impact the two categories of shareholders have on executive compensation, especially in an emerging nation.*

Design/methodology/approach – *In total, 30 corporations out of the 70 corporations listed on the BM&F Bovespa (a Brazilian stock market) were used for the paper. Quarterly data were collected on the companies from the Datastream database. The paper conducted a moderated regression analysis on the data to determine the conditional effects of majority and minority holders' investment and returns on executive compensation.*

Findings – *There are incentives for executives meeting majority shareholder objectives, but minority shareholders' influences act as a disincentive for executives. Only the influence of blockholders by their returns is affected by the separation of the roles of CEO and Chairman. The effect is such that firms with a separation of the roles have their executives rewarded in line with increments to the returns made to blockholders, but firms that have the roles merged pay a high wage that is inconsistent with managerial performance. Finally, the majority of variation in executive pay levels can be attributed to individual company traits.*

Research limitations/implications – *The paper's sample is biased to firm which had publicly available data on the total compensation payable to their top executives.*

Practical implications – *Advocates of minority shareholder rights may need to exercise patience with the implementation of more formalised governance structure, as they are not providing protection for minority shareholders within the period studied.*

Originality/value – *The paper provides empirical evidence within the Brazilian context of minority shareholder effects on executive compensation and the effect of CEO duality on the relationship.*

Keywords *Corporate governance, Chairman, Chief executives, Shareholders, Emerging markets, Merit pay*

Paper type *Research paper*

1. Introduction

Globalisation has contributed to propagating similar compensation structure across various nations of the world. Various nations across the world, as well as international bodies, have deployed many different models to address compensation structures that have a weak relationship with performance (Bebchuk and Weisbach, 2010; Fahlenbrach and Stulz, 2011). The Swiss, the USA, the Chinese and European Union commission have undertaken or are undergoing deliberations for legislation focused at influencing executive compensation processes (New york times, 2007; The Economist, 2013a, 2013b; The Guardian, 2013). These nations have varying market economies, unite on similar models for influencing the executive pay process, but do not have conclusive efficient models to improve the relationship between pay and performance. Brazil, which struggles as well on how efficiently to improve this relationship, has an economy characterised by the presence of public and private blockholders due to its adoption of a form of capitalism regarded as

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state-permeated market economies (Nölke, 2011). This situation is argued to have led to executive remunerations being highly controlled (Borodina and Shvyrkov, 2010). It is exemplified in the executives of government-owned organisations being likely to be remunerated on the basis of public salary scales rather than performance (Aslund, 1999). As well, firms with a controlling family or individual are likely to conduct strong surveillance of management to make sure that their remuneration promotes loyalty to the blockholder (Borodina and Shvyrkov, 2010).

In recent years, Brazil has made strong strides to enhance and exploit the economic potential of the nation (Borodina and Shvyrkov, 2010). The steady growth of Brazil has led to its inclusion in the group of nations referred to as the BRICs[1]. This group of emerging nations has been estimated in the next 50 years to be a powerful driving force in the world's economy (Armijo, 2007). The strong development of the Brazilian stock market since 2006, the presence of abundant natural resources and an estimated population size of 190 million make Brazil one of the 10 largest markets in the world (Borodina and Shvyrkov, 2010). This large potential has attracted substantial investment into the economy, and has also increased the demand for improved corporate governance, mainly in regard to the rights of minority shareholders and corporate enterprise risk (Borodina and Shvyrkov, 2010). Apart from investment, Brazil potentially has prompted increased research into its corporate structure and governance (Crisóstomo *et al.*, 2011; Latini *et al.*, 2014; Lattemann, 2014; Silveira *et al.*, 2010).

As stated previously, the economy of Brazil operates on a model or style of capitalism regarded as state-permeated market economies (SMEs) (Nölke, 2011). This form of capitalism promotes corporate frameworks, where ownership is usually in the hands of national elites or public authorities. These national elites and public authorities form large blockholders in Brazilian public and private corporate institutions. There is a close cooperation between the public authorities and private business actors, and this may be attributed to personal relations supported by common values and shared social background (Nölke, 2011). What uniquely defines SME of Brazil is this cooperation that portrays a seemingly equal partnership by two bodies in the coordination of the economic mechanism of the nation. This implies an omnipresence of public sector participation in corporate entities but without an engagement of a strong, centralised economic planning paradigm. The private elites take advantage of public authority participation in their entities to enhance industrial relations by ensuring regulatory formulation and implementation that provide favourable competitive advantage to their companies.

In terms of the corporate governance prevalent within this variation of Brazil capitalism, it is not uncommon for family-controlled companies[2] to combine the position of Chairman of the board and Corporate Executive Officer (CEO) in a single person. Boards with public representatives and board members connected to the controlling shareholder are also fashionable (Borodina and Shvyrkov, 2010). This corporate governance structure significantly affects organisational operations and wealth-creation dynamics in terms of meeting the general stakeholder objectives or those of the majority holder (Sora and Natale, 2004). Depending on whether majority ownership is in the hands of the state or private elites, corporate objectives will tend to differ (Jones and Mygind, 2011).

According to Bebchuk and Weisbach (2010, p. 945), executive decisions are influenced by director oversight, by shareholder monitoring and by incentives provided to them by executive compensation arrangements and bonuses. All these influences are necessary to curb the asymmetry in information between the shareholders and managers of the company due to the nature of their relationship. The shareholders and management have a principal – agent relationship arrangement (with the former being the principal and the latter being the agent), and as such, shareholders can have either no information or partial information in terms of management's efforts at meeting their objectives (Shavell, 1979). For the principal to enjoy the results of the activity of the agent, and to compensate the agent adequately, these influences curb the information gap between the two parties.

Executive pay stands as the relative representation of the value that shareholders place on the governance skill they perceive is required for the organisation (Core *et al.*, 1999a). Under SMEs, the alignment between the shareholder and management can be said to be strong, especially due to the presence of majority shareholders. Where blockholders and CEO duality exist, literature argues that policies on executive pay are not a reflection of a shareholder consensus, but are due to the activities of powerful owner managers seeking to benefit themselves (Bebchuk and Fried, 2004; Sora and Natale, 2004). Accordingly, in terms of the governance structure of Brazil's firms, the agency conflict that exists is not between management and owners, but majority owner's objectives in contrast with those of the minority. Literature therefore explains that this relationship provides blockholders with an advantageous position of influence in the organisation (Luo and Jackson, 2012).

The financial influence of a shareholder could be hypothesised to be through their investment and returns. Both the majority and minority shareholder have the ability to increase or reduce investment of funds into a business, or to request more or less returns from the business they have a stake in. This concept is exemplified in the inclusion of equity-based compensation structures and profitability-based indexes in the contract arrangements for management compensation. Majority shareholders should, in other words, affect business activities more than their minority counterparts due to the proportion of their stake in the firm. The presence of majority shareholders may ensure management focus on value creation for shareholders as a whole, but there are circumstances in which their entrenched control can be to the deficit of other shareholders. Core *et al.* (1999a, 1999b) explain that formalised governance structures can mitigate the problems of blockholder opportunism. Formalised governance structures are depicted by board structures in which the roles of management are separated from the appraisal role of the board of directors, as seen in the separation of the roles of CEO and board Chairman (Abels and Martelli, 2013; Borodina and Shvyrkov, 2010; Core *et al.*, 1999a, 1999b).

This paper, therefore, examines the two class of shareholders' influence dynamics on executive remuneration under different conditions that prevail in different firms, whether the arguments proposed by Core *et al.* (1999a, 1999b) are applicable in Brazilian firms. This analysis of both blockholders and minority shareholders provides an added perceptive of understanding the nature of the minority shareholders relationship with executive pay. This understanding adds to the literature, which has mostly focused on majority shareholders influence on executive compensation (Jones and Mygind, 2011; Lam and Lee, 2008; Luo and Jackson, 2012; Pereira and Esperança, 2015; Petra and Dorata, 2008; Sora and Natale, 2004; Su *et al.*, 2010). Consequently, the relationships of majority and minority shareholders' influences on executive remuneration are accessed with due reference to the separation of the roles of CEO and Chairman of the board of directors. The focus or objective of this study, therefore, is first estimating the relationship that exists between the two kinds of shareholders and the compensation of executives within firms and, second, evaluating if firms that differ on the separation or merger of the roles of CEO and Chairmen of the board affect that relationship and how it affects the relationship under the state-permeated capitalism structure of Brazil.

Running a pooled, fixed and random effects regressions and moderated regression of all three regressions, an examination of majority and minority shareholder investment and returns influence on executive pay was assessed, and theses of shareholders' influences interaction with CEO duality were established to identify if CEO duality affects majority and minority shareholders' relationship with executive compensation and how it affects the relationships. Based on fixed effects moderated regression analysis ranking as providing the most efficient analysis of the data, its results show that only the relationship between blockholder return and executive compensation is found to be positively dependent on the separation of the roles of the CEO and the Chairman of the board. The results of the fixed effects model show that there is an incentive for managers to favour majority shareholders and not to do the same for minority shareholders. Executives gain from extracting funds from minority shareholders and lose from making returns to them, and they have the opposite scenario with majority shareholders. The model though has a very low R-square, and most of the variation in executive pay is reflected in individual company traits as identified by rho.

2. Dynamics of executive compensation

The literature on executive compensation has been very expansive (Bebchuk and Weisbach, 2010), with a focus on what has been attributed to the unequal rise in the income levels of top executives compared to the remuneration of other employees in the firm. The literature has also examined the disconnection between this pay rise and firm performance (Bebchuk and Fried, 2004; Gabaix and Landier, 2008; Gordon and Dew-Becker, 2007).

There are at least two views on the debate of executive compensation packages:

1. *The optimal contracting view*: Which explains executive pay arrangements as arm-length negotiations between boards and executives that leads to contracts that reduce the agency problems in the relationship between the executives and the shareholders (Hölmstrom, 1979).
2. *The managerial power view*: Which challenges the perspective that pay arrangements are the results of arm-length negotiations. It then opines that executives' managerial influence gives them leverage in the negotiation process. Consequently, the managerial view pinpoints pay arrangements as a part of the agency problem, rather than a means of moderating it (Bebchuk and Fried, 2003, 2004).

The optimal contracting view, when reflecting on the allegiance of the board of directors, states that there is an understanding that the board is a representation of the company's stakeholders. They are agents serving to perform an oversight function over the management of the firm in the best interest of the stakeholders. The board enters into arm-length bargaining on the behalf of the shareholders with executives wishing to sell managerial services. This bargaining is done with the hope of acquiring the adequate managerial skills at the optimal cost to stakeholders. The board advocates for favourable contracting terms between the stakeholders and management through the assurance of their independence, with a slight tilt in favour of the stakeholders who appointed them.

In this contracting situation, the value of managerial services could be dependent on the supply and demand for such skills, or if the nature of the services required becomes more tasking or costly to executives (Bebchuk and Grinstein, 2005)[3]. On this premise, the executive remuneration will tend to be higher in nations with a lot of corporate institutions, where managers require numerous educational qualifications and years of experience or executives are needed to manage companies which are suffering losses or which are large multi-nationals. Stock market booms tend to encourage an increase in the pay given to executives. This increase has been attributed to heighten the demand for managerial services by new firms entering the market (Himmelberg and Hubbard, 2000; Hubbard, 2005). With the pool of available managerial skill growing at a slower rate than the demand for the service provided, a struggle ensues between new firms hiring up quality executives and existing firms trying to retain them, leading to a proliferation of the pay levels of executives. Market booms are though periodic events that should reflect these pay rises as transitory, it seems that the increments in pay are found to be permanent. Bebchuk and Grinstein (2005) explain that it is unclear as to why this occurs, and suggest that it could be a function of the supply of managers over time being unable to respond to the increased demand for them.

Other optimal contracting view explanations as to the influence of market forces in the bargaining process for executive remuneration; are the increase in the reservation wage for executives due to bull market conditions (Spatt, 2006), that during booms executives utilize more effort in managing the organisation (Bebchuk and Grinstein, 2005), increased mobility of executives and executive turnover. In terms of the reservation wage of executives increasing due to bullish conditions, Spatt (2006) argues that such conditions increased the wealth of executives, and to induce them to work, an increment had to be made to their reservation wage. As for managers exerting more energy during booms, Bebchuk and Grinstein (2005) state there is little evidence to support this, and in fact, it could be said that more effort is expected from managers during bear market, as they have to manage shareholder despondency as well as the difficulty in sourcing funds.

With the hiring of executives from outside the firm, the availability of job options gives executives leverage in the bargaining position for their remuneration. Bebchuk and Grinstein (2005) believe that this strengthen in executive bargaining position may be ambiguous when it could be considered that directors in search of executives also have as many choices for managers. Organisations can as easily replace executives by shopping out of the firm; as executives can gain employment in other firms, this could ensure that remuneration paid to executives are commensurate with the demand for the quality of their work.

Also, it has been suggested that executives compensation levels have gone up to compensate them for the high risk of losing their jobs (Hermalin, 2005; Murphy and Zabojnik, 2007). However, the inclusion of contractual provisions that ensure large severance packages for executives if fired, as well as the tendency for executives to get goodbye payments in addition to this severance benefits, creates such a high financial cost for the firm that it mediates the risk of executive firings (Bebchuk and Fried, 2003).

Since the 1990s, there has been a greater inclusion of equity-based incentives into the remuneration given to executives (Bebchuk and Grinstein, 2005). Equity-based compensation has been referred to be an important feature in the contract between the shareholder and executives (Guay *et al.*, 2002). The need to encourage executives to improve shareholder stock values, and the occurrence of such increases, has led to the growing acceptance of equity-based incentives. These forms of incentives have a significant influence on manager's wealth. Literature provides evidence that among US firms, the overall sensitivity of CEO wealth are to changes in stock price, and majority of this sensitivity are due to ownership of stocks and options (Hall and Liebman, 1997; Hall and Murphy, 2002). Core *et al.* (2000) report that a ratio of equity portfolio to annual pay was 30.3 on average for CEOs during 1993-1998; this provides an idea of the contribution of equity compensations towards executive pay.

As the basis for equity incentives is to spur managers to increase share price, the prevalence of bullish markets for stock creates the image that executives are performing this function well. It is, therefore, arguable that managers are deserving of the compensation levels they receive. Bebchuk and Grinstein (2005), however, suggest that is argument does not account for other ways pay has changed, cash compensation has continued to rise regardless of use of equity-based compensation, and also the equity-based compensation are not designed in the most the cost-effective way to provide a given levels of incentives. The persistence of the increase in cash compensation symbolises that equity incentives were not used as substitutes for performance-insensitive cash compensation. Also, boards were unable to use more efficient means to generate same or better results at lower-costing equity-based remuneration. This dents the argument for equity-based compensation efficiency at promoting higher-level managerial service.

Managers themselves do not have full control over the value of the stock price. The norms of financial reporting do not allow for adjustment of management options to reflect the external influence of the market on the price; this, therefore, allows executives to make unearned income through this form of remuneration (Angel and McCabe, 2008). If the firm were to make such an adjustment in reporting against what is the norm across the industry, then it could result in a wrong perception by the market, which could lead to more losses for the firm than it would lose through executives' unearned incomes. A dilemma is faced by the firm on whether to optimise remuneration from stock-based compensation through accurate financial reporting or face accounting penalties relative to other firms not engaging in this form of reporting.

The managerial power view, on the other hand, takes the stand that company directors as well as management are agents, and are probably prone to agency problems. As agents, directors are more inclined and have greater incentives to favour executives to the extent that they are willing to bear the market penalties and social costs of such actions (Bebchuk and Grinstein, 2005). The stock market, governments, institutional shareholders and other stakeholder's perception of economic conditions set the degree of market penalties and social costs that managers and directors face on their remuneration. There is less outrage shown towards executive pay levels during market booms, even in poor-performing firms (Bebchuk and Fried, 2004). An example can be seen in Bebchuk and Grinstein's (2005) explanation of the 1990s bull market; managers and boards had weak constraints on their pay causing pay boosts, but during the period 2000-2002, shareholders scrutinized management actions more, and were less forgiving about their pay levels, as this shareholders saw their investments fall in value.

The work of Gabaix *et al.* (2014) ties together the relationship between CEO compensations and firm market value, resolving that the two measures increase proportionately together and, as such, are a reflection of the effect of talent on firm size. The work portrays firm value as a product of management effort and justifies their pay levels in line with the increase in such value. In firms losing market value, managers have to contend with takeovers which usually result in retrenchment. This argument puts the market constraint for executive pay as a factor of a firm's value. The problem with this argument is that executives can take defensive measures to forestall takeovers. Also, the cost of takeovers discourages its use as a means of curtailing management remuneration (Bebchuk and Grinstein, 2005). There is a low likelihood that a hostile takeover bid will surface to punish managers for a fall in market value of the firm whenever it occurs. Managers' behaviours are, therefore, more likely to be held accountable if substantial wealth loss is experienced by the firm's shareholders.

In terms of equity-based compensation, Bebchuk and Grinstein (2005) argue that managers used investors' interest in improving the relationship between pay and performance to justify significantly large remuneration amounts. Managers were able to achieve this by taking up equity compensations without corresponding reduction adjustments to amounts paid in cash. Also, pay packages were designed in a manner that gave opportunities for managers to optimise the compensations they got, without proportionate sensitivity to their level of performance. Managers were being paid very generously for performance that a more cost-effective option plan would have equally achieved. Having this in hand, executives could get paid amounts in equity compensation that would have been inconceivable if paid in cash. Boards could condone these levels of remuneration, as equity compensation was seen as a cheaper means of paying executives, as the firm do not have to part with large sums of cash. Therefore, equity compensation legitimised increases in the management pay, even when pay was based on flawed pay packages.

Brazil's nature of capitalism through controlling families or governmental authorities is likely to keep an eye on executive performance and control for extravagant pay packages, and this ensures use of equity-based compensation packages being relatively rare (Borodina and Shvyrkov, 2010). These packages focus on value creation to only a handful of majority shareholders. The minority shareholder rights in many circumstances are disregarded, and have limited opportunities to pass across their discontent to management. Examples can be seen where it is common to have firms with 100 per cent of their ordinary shares in the hands of a group or single owner and the free floating shares made up solely of preferred shares (Borodina and Shvyrkov, 2010). This limits the market mechanisms for imposing discipline on managers through hostile takeovers. Minority shareholders which are holders of preferred shares worth 10 per cent of total capital can appoint a member of the board, but the functions of the board member they appoint are limited in comparison with those appointed by ordinary shareholders (Borodina and Shvyrkov, 2010). With Brazilian boards of directors composing at least three members to be appointed by shareholders, there is a ratio of at least 2:1 directors appointed by the ordinary shareholders and minority preferred shareholders of the organisation. With the disparity in the number and functionality of directors, minority shareholders rights can be easily marginalised.

It is also worth noting that though executive remuneration is controlled, there is still an uneven distribution of income across the labour market of Brazil (Jensen and Larsen, 2004). The labour market is made up of a marginalised unorganised informal sector, while corporate management is in the hands of a privileged small group which is a part of the social class of the elites (Nölke, 2011). Where a controlling shareholder also acts as both Chairman of the board and CEO, majority ownership and executive control can be one and the same thing. This means that managerial compensations may comprise not only their basic compensation packages but also an element from the organisation's revenues, as there is no independent body ensuring checks and balances. Therefore, whether it is a developed or emerging economy, the disparity between the executives' compensation and that of the average worker is clear and is continuously rising. Development of models that establish adequate justification for this rise is necessary for sustainability of efficient corporate governance under capitalism.

3. Shareholder power in modelling executive pay

The model for addressing executive compensations structure should reflect and examine the significance of shareholders in influencing the value of compensation in relation to both performance and productivity. Thus, a corporate governance model that provides value creation is characterised as one that is holistic in nature, ethical in the eyes of all, a managerial operation and compensation package that is justified to stakeholders (Parmar *et al.*, 2010). These characteristics encourage a utilitarian approach to a stakeholder body which depends on the firm to achieve their respective personal goals and on which the firm depends as well for its existence (Steadman and Green, 1997). Governance should be of the form that promotes strategies that are embedded in a principled approach that creates value for all stakeholders not beyond the point that a further increase of any individual stakeholder wealth will result in a reduced firm value (Jensen *et al.*, 2004). Shareholders form a part of the stakeholder group. Their influence on the organisation is felt through their ability to supply the funds required to facilitate firm operations and the returns they require and expect from the outcomes of firm operations.

The influences of the shareholders are expectedly brought to bear on the firms through shareholders consciously monitoring the activities of their agents: the directors and management. The monitoring process is a strategic role and necessary action to ensure that there is proper incentive to yield value for the shareholders. It is, therefore, important that firms' governance structure should be such that it provides an enabling environment for shareholders to monitor the activities of their agents.

This paper uses common shareholders' equity as a measure of shareholders' influence through investment of funds for the organisation. The acquisition and ownership of shares provide shareholders with the voting right and control and justify their demand for a favourable level of return from management. In Brazil, where close to 60 per cent of firms have voting shares concentrated in the hands of a few investors (Borodina and Shvyrkov, 2010), influence on management is expectedly more in ensuring proper returns are made on the shareholders' investment. Shareholders' equity has been used in literature as a stock market returns measure of executive compensation. Banker and Datar (1989) portrayed the information derivable from equity prices as important in the two variable function of optimal pay contracting (Core *et al.*, 1999a; Davila and Penalva, 2006). In western studies, due to the application of agency theory, returns measures are expected to positively correlate with managerial pay as an identifier of improved well-being of shareholders (Jones and Mygind, 2011). Studies that have accessed emerging nations have rather reported negative correlations in terms of this relationship; Luo and Jackson's (2012) assessment of tunnelling by executives in China had negative correlation results of the relationship between stock price and controlling executive tunnelling.

This study, taking cue from Banker and Datar's (1989) optimal pay contracting function, considers return on equity as an accounting earnings variable in the contracting function. It is expected also, in accordance with the western literature on agency theory, that this measure of firm profitability is to be positively aligned with incentives given to management to ensure proper corporate governance (Murphy and Jensen, 1998). This expectation has also been found to be consistent within the analysis of emerging nations. Jones and Mygind (2011) found in their study of CEO compensation in Estonia that accounting returns were positively correlated with CEO incomes, especially accounting for majority ownership.

The Brazilian experience is informative and instructive. This is because as management and controlling ownership are often inter-locked in Brazil, the cost of poor governance is most usually shouldered by minority shareholders. Insider information available to inter-locking management and owners in organisations enables them to direct other shareholders' funds for their private remuneration or direct such funds towards personal objectives to the detriment of minority shareholders. The presence of directors that are aligned with the controlling owner can impede the board's ability to monitor management's activities (Borodina and Shvyrkov, 2010). This structure depicts the theories expressed under the managerial power view, where management and directors work in opposition to the shareholders (Bebchuk and Fried, 2003, 2004; Bebchuk and Grinstein, 2005). In the studies conducted by Petra and Dorata (2008) and Lam and Lee (2008), majority shareholder control is found to be consequent on CEO duality, and the effect of this inter-lock tends to discourage the use of performance-based incentives within CEO dual firms.

However, it should be noted that the evolving and expanding capital markets are resulting in greater formalisation of board procedures and directors' duties to attract investors (Borodina and Shvyrkov, 2010). It is necessary to ascertain whether the changes are taking on a favourable effect on the position of the minority shareholder or majority shareholder, or which of the two would prefer the alternative of a less formal board structure. The focus of this study is to then compare the effect of majority and minority shareholder investment and returns on compensation conditioning for the inter-locking relationship between management and ownership.

4. Methodology

4.1 Sample

Using three years' quarterly data from 30 corporations on BM&F Bovespa from 2010 to 2012, this paper compared majority shareholder investment and returns demand influence against minority shareholder investment and returns demands' influence to understand which of these most significantly affect remuneration of executives. The BM&F Bovespa has 70 companies listed on it; a convenience sampling technique was used for selecting the companies as well as the time period used, and samples were selected based on the availability of data on the Datastream database. The use of a quarterly basis allowed for a significant and sizable sample size on which the trend of the various variables can be measured[4]. Apart from the selected period being based on convenience, it falls within the period Brazil started opening her markets to foreign investments and also when developments in her capital markets started occurring (Borodina and Shvyrkov, 2010).

4.2 Data

4.2.1 Dependent variables. Executive compensation is measured as the log of the total compensation paid to all senior executives (if total aggregate is reported by the company). This aggregates both cash compensations and stock-based compensations[5] paid to senior management of the organisation for the period studied. The log of executive compensation was used because it mitigates the influence of outliers and defines the dependent variable to changes (Davila and Penalva, 2006).

4.2.2 Independent variables. Shareholder investment influence is divided into its components owned by the company's blockholder and those in the hands of minority interests[6]. The log of common shareholder equity of both the blockholder and minority shareholder is used as the measure for the investment influence of each. Equity is taken to be the value that shareholders paid to have an interest in the organisation, and it is expected to have a correlation with the investment size of a firm. Common shareholder equity consists only of ordinary shares. Its use as a measure of executive compensation is supported by the studies of Banker and Datar (1989), Feltham and Xie (1994), Core *et al.* (1999a, 1999b, 2000) and Baber *et al.* (1996).

Shareholders' accounting returns demand is measured as return on equity. This variable is divided into its portion receivable by majority shareholders and portion receivable by minority shareholders[7]. Literature shows that many other variables could be used to measure accounting returns (Murphy, 1999), but return on equity was chosen for this study, as it represents "Net Income before Preferred Dividends – Preferred Dividend Requirement)/Last Year's Common Equity * 100", which indicates return on ordinary shares. The log of minority and majority shareholders' return on equity is used for the sake of consistency with the work of Davila and Penalva (2006).

4.2.3 Moderator. The moderator accounts for a situation where the firm management is interlinked with the ownership of the firm. A measure which accounts for a situation of whether the positions of the CEO and the Chairman of the board are held by the same person will be used to represent the situation of inter-locking management. The positioning of the head of the board as also the managerial head is seen as ownership inter-locking with management because boards are to perform oversight functions over management as a responsibility to shareholders. Where both positions are held by the same person, it can be argued to be the same situation as the shareholders handling management themselves (Bebchuk and Grinstein 2005). Companies which have the roles split between two different individuals are denoted by a 2 and those with no split are denoted by a 1.

4.2.4 Controls. A variable is added into the analysis to account for firm size, which has been identified by Gabaix *et al.* (2014) as having a proportional growth with pay of executives. The log of the firm sales is used as a measure of firm size. Sales is used as compared to market capitalisation of the organisation to limit multicollinearity problems that may occur due to the inclusion of shareholder equity alongside capital.

4.3 Research design

To account for the differences in majority and minority shareholder investment and returns demand influence on executive compensation moderated by inter-locking management, a longitudinal moderated regression is estimated. This sort of regression is used to define a relationship where the relationship between the dependent and independent variables depends on or is predicted on either the size, sign or strength of another variable (Hayes, 2008). The following equation captures the relationship that the study depicts:

$$\begin{aligned} LogCompensation = {} & \propto + b_1 LogMajority\ Equity + b_2 \mathrm{LogMinority\ Equity} \\ & + b_3 LogMajority\ Return + b_4 LogMinority\ Return \\ & + b_5 \mathrm{LogMajority\ Equity * CEO\ \&\ Chairman\ split} \\ & + b_6 LogMinority\ Equity * CEO\ \&\ Chairman\ split \\ & + b_7 LogMajority\ Return * CEO\ \&\ Chairman\ split \\ & + b_8 LogMinority\ Return * LogCEO\ \&\ Chairman\ split \\ & + b_9 CEO\ \&\ Chairman\ split + b_{10} Log\ Sales + \varepsilon \end{aligned} \tag{1}$$

The coefficients b_5 to b_8 are of primary importance in this study, as they quantify how much the conditional effect of majority equity, minority equity, majority return and minority return on executive compensation changes to an inter-locking management change by one unit. For example, the coefficient b_5 represents how much majority equity effect on executive compensation is conditioned on a firm having a CEO who is not the same as the Chairman of the board, holding all other variables constant. The statistical significance of coefficients b_5 to b_8 symbolise if the moderator conditions the effects of independent variables in the equation. The variables for these coefficients are formed from the products of the independent variables and the moderator on which their interaction are to be accessed. The coefficients b_5 to b_8 are necessary in discussing the differences that occur between the majority and minority shareholder, as it relates to different organisational situations.

The other coefficients b_1, b_2, b_3, b_4 and b_9 are conditional effects of the independent variables when the moderator is at 0. For example, b_1 is the conditional effect of majority equity on executive in the coefficient b_5 which statistically specifies only the impact of a condition, for example, the separation of the roles of CEO and Chairman of the board; b_1 states the relationship that exists between the independent and dependent variables under a condition that value of the moderator is a 0. If the values for CEO and Chairman separation of roles was coded as a 0 for none separation and a 1 for a separation, then the interpretation of b_1 would have been: the effect of majority shareholder equity on executive compensation when a firm has a single person filling the position of CEO and Chairman of the board of directors. Due to the manner in which the variable representing the inter-lock of management and board was coded, the interpretive significance of the coefficients b_1, b_2, b_3, b_4 and b_9 is limited and not significant to this study. All the same, they are important enough to be included in the equation, as they are a part of the structure on which a moderated regression should follow (Hayes, 2008).

Therefore, To get coefficients b_1, b_2, b_3, b_4 and b_9 interpretive significance, an equation devoid of the interaction variables is estimated. This model will estimate the effect of a one-unit difference among firms, as an independent variable will change the income of executives, holding other variables constant. For example, b_1 in the model will estimate how one dollar of majority shareholder equity will change the value compensation paid to executives holding all other variables constant. The equation is represented as:

$$\begin{aligned} LogCompensation = \propto &+ b_1 LogMajority\ Equity + b_2 \mathrm{LogMinority\ Equity} \\ &+ b_3 LogMajority\ Return + b_4 LogMinority\ Return \\ &+ b_9 CEO\ \&\ Chairman\ split + b_{10} Log\ Sales + \varepsilon \end{aligned} \tag{2}$$

5. Results

5.1 Descriptive statistics

Table I displays the descriptive statistics for the variables and their log transform. The remuneration of senior executives ranges from \$2,097,000 per quarter to \$1,830,605,965.92 per quarter after the distribution has been winsorised to eradicate outliers. The average total senior executive remuneration per quarter is \$388,222,120.87. The mode of \$1,830,605,965.92 per quarter demonstrates that most firms pay their senior executives the highest possible compensation.

The average majority shareholder equity investment per quarter is \$20,932,189.28 and that of the minority shareholder is \$19,539,408.87. This implies that majority shareholders invest \$1,392,780.41 more than minority shareholders on average per quarter in organisations within Brazil. On the other hand, minority shareholders' return on equity is higher by 2.44 per cent on average as compared to that received by majority shareholders, as can be seen with an average return on equity of 12.41 and 9.97 per cent for minority and majority shareholders, respectively.

In the sample, 90 per cent of the time the position of CEO is separated from that of Chairman of the board. This demonstrates that as the literature explained, firms quoted on the stock markets tend to have formalised board structures. Based on 10 per cent of the sample having firms with a merger of the two positions, this variable still provides

Table I Descriptive statistics

	Mean	*Median*	*Mode*	*SD*	*Skewness*	*Kurtosis*	*Minimum*	*Maximum*	*Percentiles* 25	50	75
Executive pay	388,222,120.87	48,455,000.00	1,830,605,965.92	611,359,075.44	1.51	0.79	2,097,000.00	1,830,605,965.92	14,707,000.00	48,455,000.00	612,000,000.00
Log of executive compensation	18.09	17.70	21.33	2.01	0.28	(1.10)	14.56	21.33	16.50	17.70	20.23
Shareholder equity owned by majority shareholder	20,932,189.28	2,221,995.64	59,085,132.00a	45,189,263.27	2.74	6.45	107,849.04	182,961,693.30	1,259,030.02	2,221,995.64	9,588,932.20
Log of majority shareholders' equity	6.53	6.35	7.77a	0.85	0.30	(0.49)	5.03	8.26	6.10	6.35	6.98
Shareholder equity owned by minority shareholder	19,539,408.87	4,820,103.13	53,030,868.00a	38,965,088.76	2.75	6.68	498,394.13	170,716,110.40	1,594,139.93	4,820,103.13	11,898,088.19
Log of minority shareholders' equity	6.72	6.68	7.72a	0.66	0.64	(0.32)	5.70	8.23	6.20	6.68	7.08
Return on equity to majority shareholder	9.97	5.27	3.17a	15.08	2.97	8.82	(1.11)	80.12	2.60	5.27	9.35
Log of majority shareholders' return on equity	0.89	0.87	0.72a	0.38	0.47	0.51	0.00	1.92	0.67	0.87	1.06
Return on equity to minority shareholder	12.41	7.03	2.11a	17.34	4.02	21.24	(2.66)	128.04	4.19	7.03	14.00
Log of minority shareholders' return on equity	1.07	1.03	0.76a	0.32	0.29	1.55	(0.00)	2.12	0.89	1.03	1.25
Sales revenue	32,017,389.68	8,881,622.00	139,916,996.40	43,013,102.01	1.54	1.06	308,829.00	139,916,996.40	4,232,638.00	8,881,622.00	46,594,486.00
Log of sales	7.10	6.95	8.15	0.62	0.19	(0.80)	5.49	8.15	6.63	6.95	7.67
Chairman/CEO split	1.90	2.00	2.00	0.30	(2.68)	5.20	1.00	2.00	2.00	2.00	2.00

CEO and Chairman split

	Frequency	*Percent*
No split	36	10.0
Split	324	90.0
Total	360	100.0

information on the conditioned effect shareholders have in influencing senior executives' pay.

5.2 Correlation and multicollinearity

Table II shows the correlation and multicollinearity test conducted on the variables. The log of majority shareholders' equity, log of minority shareholders' equity, log of majority shareholders' return on equity and log of minority shareholders' return on equity have been found to have collinearity with other variables as shown by their tolerance being below 0.1 and their variance inflation factor (VIF) being above 10 (Belsley *et al.*, 2005; Pedhazur and Kerlinger, 1982). The multicollinearity is expected among these variables as their computation is a product of the separation of the element owned by two separate shareholders. The variables were still used in the analysis because the study is concerned with identifying differences that exist between groups of shareholders, and under such a research design, evidence of collinearity is excused (Hayes, 2008).

5.3 Regression results

The results of the cross-sectional regression, panel data (random and fixed effects) regressions and moderation for all three models are shown in Table III. Models 1, 3 and 5 represent the pooled regression, the random effects regression and fixed effects regression, respectively. Models 2, 4 and 6 incorporate the interaction variables into the pooled, random effects and fixed effects regression, respectively. The former three mentioned models address the objective of analysing the two class of shareholder influence on executive compensation, while the latter three mentioned models address the objective of examining if and how CEO duality affects the relationship. The fixed effect models are used for interpretation, as the results of the Hausman and Breusch–Pagan test estimate it as the most efficient estimator model. The rho of Models 3 and 4 is 0.86 and 0.89, respectively, indicating that the individual firm traits explain a lot of the variance in executive remuneration. The R square of 0.002 in Model 3 and 0.003 in Model 4 also identify company individual traits as the important determinant of executive pay variations.

From the model of shareholder power, this paper has expectations in terms of majority shareholder influences which have been studied by literature on emerging nations (Lam and Lee, 2008; Luo and Jackson, 2012; Petra and Dorata, 2008; Su *et al.*, 2010). This paper expects majority investments to have a negative relationship with executive pay (Luo and Jackson, 2012), while majority returns would have a positive influence on executive pay

Table II Correlation and collinearity test

			Correlation				
	Log of executive compensation	*Log of majority shareholders' equity*	*Log of minority shareholders' equity*	*Log of majority shareholders' return on equity*	*Log of minority shareholders' return on equity*	*Log of sales*	*Chairman/ CEO split*
	Tolerance	0.024	0.049	0.057	0.079	0.206	0.800
Collinearity statistics	VIF	41.576	20.297	17.436	12.674	4.860	1.251
Log of majority shareholders' equity	0.050	1.000					
Log of minority shareholders' equity	−0.102	0.810	1.000				
Log of majority shareholders' return on equity	0.107	0.117	−0.285	1.000			
Log of minority shareholders' return on equity	−0.137	−0.473	−0.413	0.594	1.000		
Log of sales	0.085	0.865	0.759	0.047	−0.342	1.000	
Chairman/CEO split	−0.180	0.245	0.148	0.225	−0.057	0.131	1.000

Table III Moderation results

		1 Pooled	2 Pooled moderation	3 Fixed	4 Fixed moderation	5 Random	6 Random moderation
Log blockholder equity	b_1	−3.999***	4.166	−3.343***	0.8524	−3.287***	0.3421
Log minority equity	b_2	2.443***	0.8315	4.095***	3.124	3.179***	0.2846
Log blockholder ROE	b_3	6.949***	−7.5	7.219***	−0.6734	6.621***	−0.7982
Log minority ROE	b_4	−7.698***	12.4	−8.043***	0.7861	−7.457***	0.5471
Log sales	b_{10}	1.587***	1.413***	−3.5***	−5.114***	−0.5263	−0.4649
CEO/Chairman split	b_9	−2.12***	48.19**	−0.7996	−7.607	−1.097*	4.198
C/C split × log blockholder equity	b_5		−8.848*		−2.58		−4.172
C/C split × log minority equity	b_6		2.405		3.827		3.647
C/C split × log blockholder ROE	b_7		15.79**		9.982*		8.787**
C/C split × log minority ROE	b_8		−21.01*		−10.1		−9.067
Constant		22.62***	−77.86*	40.94***	35.49	26.1***	13.43
R^2		0.2424	0.2964	0.0022	0.0031	0.1043	0.1575
Rho				0.8632	0.8959	0.7149	0.6184
Hausman		Fixed versus random	Chi-square (6) = 17.73, p value = 0.007				
Breusch-Pagan		Random versus pooled	Chi-square (01) = 804.86, p value = 0.000				
Number of observations		360	360	360	360	360	360
Number of groups		30	30	30	30	30	30

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.0001$; the table reports the regression results of controlling and minority shareholder influence on executive compensation under the conditions of CEO duality over the years 2010-2012; the dependent variable is logarithm of total executive compensation for firm *i* in quarter *t*; Log blockholder equity is the logarithm of majority shareholder common equity; Log minority equity is the logarithm of minority shareholder common equity; Log blockholder ROE is the logarithm of majority shareholder return on equity; Log minority ROE is the logarithm of minority shareholder return on equity; Log of sales is the logarithm of sales; CEO/Chairman split is a dummy variable measuring CEO duality; the other variables account for majority and minority shareholder influence interaction with CEO duality

(Jones and Mygind, 2011). In the case of minority shareholder, there are not many studies accounting for measures of their influence in terms of executive pay; this provides little foundation for any expectations in terms of the nature of minority shareholder influence. This study, consequently, is investigating minority shareholder influence to identify the nature of its relationship to executive remuneration. The regression results, therefore, discuss relationships of the different variables examined.

5.3.1 Majority shareholder's effect on compensation. From Model 3, both majority shareholder equity and return significantly influence executive compensation. This is shown by coefficient b_1 and b_3 being statistically significant to a 95 per cent confidence level. Coefficient b_1 shows that the effect of a one per cent increase in blockholder common stock equity will imply a fall of 3.34 per cent on executive earnings, holding other variables constant. Coefficient b_3 implies that a one per cent increase in majority shareholders return on equity could result in 7.22 per cent increase in the incomes of executives. The results of b_3 are in contrast with the findings of Luo and Jackson (2012), which could be argued to be due to their use of return on assets as a representation of accounting earnings, but return on assets coefficients are similar to that presented in the study conducted Jones and Mygind (2011), where they control for state majority ownership. The results of b_1, on the other hand, are similar to those in the study Luo and Jackson (2012).

From Model 4, only majority shareholders return relationship with executive pay is significantly affected by the separation of the roles between the CEO and Chairman. This is shown by the coefficient b_7 being statistically significant to a 95 per cent confidence level. Coefficient b_7 shows that a one per cent change in blockholder return on equity effect on executive compensation would be affected positively by a factor of the exponential to 9.98, when the role of CEO and Chairman are separated. This implies that the relationship between blockholder return on equity changes positively by 998 per cent within a firm where the roles of CEO and Chairman are separated.

Figure 1 visualises this relationship, and it demonstrates that majority shareholder's return on equity positively affects executive remuneration both under condition of separate roles of the CEO and Chairman and when the two roles are merged. The difference that exists between these two conditions is that when there is a split in the roles of CEO and Chairman, executives earn less for an increase in majority shareholder's return on equity as compared with what would happen if the roles were merged, for values of return on equity lower than 0.99 on the graph. Values of return on equity higher than 0.99 will have executives earning more in firms where the roles are separated as compared with in firms where they are merged.

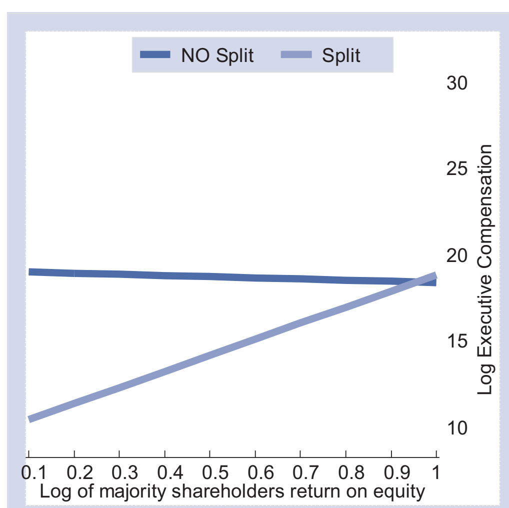
A clearer explanation is that under formalised governance structures, executives will be rewarded according to the level of performance achieved, and will stand to gain more from consistently attaining high levels of performance. By contrast, firms with managerial influence over their boards reward executives excessively and not commensurate with performance levels. This is consistent with the arguments made by Bebchuk and Fried (2004) that compensation levels are higher when governance structures are weak.

5.3.2 Minority shareholder's effect on compensation. Table III shows that minority shareholders' equity investment and minority shareholders' return on equity effect on compensation significantly affect the remuneration of executives. This is supported by the statistical significance of coefficients b_2 and b_4 having a confidence level of 95 per cent. The coefficient b_2 demonstrates that a one per cent increase in minority shareholders' equity has an effect of a 4.1 per cent increase in executive pay, holding other variables constant. The coefficient b_4 demonstrates also that a one per cent increase in minority shareholders' return on equity has an effect of an 8.04 per cent fall in executive compensation, holding other variables constant. Due to most studies identifying only majority shareholder influences on compensation, it is difficult to compare observed results with other studies (Jones and Mygind, 2011; Luo and Jackson, 2012; Pereira and Esperança, 2015; Yasser and Mamun, 2015).

Model 4 shows that the relationship between minority shareholder and executive compensation is not conditioned on CEO duality. This is supported by coefficients b_6 and b_8 not being statistically significant at a confidence level of 95 per cent.

5.3.3 CEO duality effect on compensation. Model 3 shows that CEO duality does not significantly affect the remuneration of executives. This is supported by the statistical

Figure 1 Blockholder effects on executive compensation conditioned on the inter-lock of management and board



insignificance of coefficients b_9 at a confidence level of 95 per cent. The coefficient b_9 though does demonstrate that there is a negative relationship with executive remuneration. It portrays that firms which have the roles of CEO and chairman separated have an effect of a 0.8 per cent reduction in executive pay, holding other variables constant. The analysis finding an insignificant relationship with compensation is in contrast with the findings of Petra and Dorata (2008), which found a significant negative relationship. This disparity could be due to the dummy variable indicators used to depict the separation of the roles.

5.3.4 The effect of the controls on compensation. In both Models 3 and 4, the coefficient for firm size (b_{10}) is representative of an unconditional effect, as it has no interaction with the moderator CEO duality. In both models, company sales has a negative effect on executive compensation. This is supported by the statistical significance of coefficients b_{10}, having a confidence level of 95 per cent. Model 3, where there is the no interaction, shows for a one per cent increase in firm size, there could be a reduction in remuneration of executives by 3.5 per cent, holding all other variables constant. Model 4, on the other hand, states that for a one per cent increase in firm size, there could be a reduction in remuneration of executives by 5.1 per cent, holding all other variables constant. The disparity in the two models could be due to the inclusion of the moderating variables in Model 4.

The results of firm size effects on managerial compensation in terms of emerging nations vary; Pereira and Esperança (2015) found its effects to be insignificant, while Su *et al.* (2010) and Luo and Jackson (2012) found its effects to be positive. Studies on developed economies also show a positive relationship between firm size and executive compensation (Core *et al.*, 1999a; Gabaix *et al.*, 2014). This study's finding is in contrast to those of these other studies, and could be a function of majority control over executive compensation.

5.4 Discussion

From Table III, the different coefficients depicting majority and minority shareholder influence on executive pay are shown in Table IV. The identifiable difference between majority and minority shareholders investments can be seen in the sign and degree of the relationship between the two classes of shareholders and executive compensation. Majority shareholders affect executive pay negatively, whereas minority shareholder's effect is positive. This implies that management has less of an incentive to promote increased investments by majority shareholders, but rather are motivated to do so from minority shareholders. With a loss of 3.34 per cent to executive's incomes for increased investments from blockholders, management will most likely focus on minority shareholders to increase their funding to the firm, as this leads to a 4.1 per cent rise in management incomes. The findings seen among the blockholder equity is consistent with results of Cyert *et al.* (2002), where they found that equity owned by largest shareholder was negatively related to size of CEO equity compensation. Though the remuneration used in this study is cash remuneration, the theorised relationship seems to be the same.

In terms of the difference between majority and minority shareholder returns influence on executive compensation, majority shareholders' returns positively affect compensation to a degree of 7.22 per cent. On the contrary, minority shareholders' returns negatively affect compensation to a degree of 8.04 per cent. This implies that management has an incentive

Table IV Table showing coefficients of equity and return on equity for minority and majority shareholders

	Comparing the effects of majority to minority shareholders	
	Majority shareholder	*Minority shareholder*
Investment	−3.34	4.1
Returns	7.22	−8.04

to improve the returns of majority shareholders, but in the case of the minority shareholder, they are demotivated to do so.

The identified relationships of the classes of shareholders and executive remuneration implies a corporate environment where executives are motivated to make more returns to blockholders without an increased investment by blockholders. The reverse is the case for minority shareholders, where there is more of a motivation to derive more funds from them without an increment to the returns they are to receive. This could be representative of a corporate environment in which minority ownership bears the burden of business cost, while majority owners receive a greater proportion of firm returns. This results show similarities to the explanation that Borodina and Shvyrkov (2010) have concerning the rights of the minority shareholder in Brazil. The limited scope of mechanisms available to the minority shareholder through hostile takeovers, and limitation of powers of board members they appoint, encourage this identified managerial opportunism (Nölke, 2011). The adherence to legal changes to attract international investors does not seem to provide enough protection for minority shareholder welfare (Abu-El-Haj, 2007). Therefore, the paper's results confirm that corporate governance of the Brazil firms has the problems agued by the managerial power perceptive of controlling shareholder opportunism at the expense of minority shareholders.

As the finding shows that the inter-lock of management and ownership or CEO duality only significantly affects the influence of blockholder accounting returns, it therefore implies that the identified corporate environment is consistent among a majority of firms, and does not differ with regard to the presence of formalised board structures. The effect of CEO duality on the relationship between blockholder returns and executive pay does show that companies with formalised board structures have a more positive relationship between management performance and their pay. Companies which take up the alternative of merging the roles of CEO and Chairman of the board keep management pay high and inconsistent with improvement in performance. This results are consistent with theories that argue that formalised corporate governance structures enhance the pay performance alignment (Bebchuk and Fried, 2003; Lam and Lee, 2008). This paper's finding of no evidence of majority shareholder investments interaction with CEO duality is consistent with the findings of Davila and Penalva (2006), and they accrue this finding to management having less of a control over the market measures of performance (investment measures) than the accounting measure of the firm (returns measures).

Minority shareholder influence are though unaffected by the factor of CEO duality, and are therefore put in a disadvantaged position, regardless of the organisations board structure. The lack of evidence of a moderation of CEO duality on the investment or returns of minority shareholders still gives credence to the inability of market regulations and investor influence to adequately protect minority rights. This contradicts theory that implementation of formalised governance structure will serve as a protection for minority shareholder rights (Bebchuk *et al.*, 2009, 2011; Borodina and Shvyrkov, 2010). These results still confirm the managerial power dynamics in Brazilian firms, and that this is not curbed by international investor-proposed governance structures. Brazil being an emerging nation may require more years of implementation and adoption of these formalised governance structures so they mere adherence to encourage foreign investment but an inclusion in the corporate culture so it translates into protecting minority welfare.

The results of the papers capture a very small portion of the picture regarding the corporate environment of Brazil, as seen by the very low R-square for the fixed effects model and the high influence of individualistic traits of the companies. The inclusion of other board characteristics could broaden the scope of the understanding regarding Brazil's corporate governance environment (Petra and Dorata, 2008). Also, investigating individualist company traits such as brand value can account for its high influence in the determination of executive pay.

6. Conclusion

The ramifications, implications and significance of the above results in light of the Brazilian situation reveals the ingredients and effects of capitalist economic structures prevalent in an emerging nation. Family ownership, inter-locking control and management, government-authorised control over management are explained by Borodina and Shvyrkov (2010) as key factors that can lower levels of executive pay in comparison with more developed corporate economies. The results of this paper seem to show that there is an incentive for managers to favour majority ownership objectives and a disincentive to favour those of minority shareholders. The proliferation of blockholder-loyal directors as stated by Borodina and Shvyrkov (2010) could be responsible for the relationship identified in this paper. Majority shareholders' returns grow in line with executive pay, and this relationship is more rewarding for executives in companies where the roles of CEO and Chairman of the board are combined.

The Brazilian corporate governance system has the presence of a managerial power dynamics due to domination of managerial control by blockholders. Minority shareholder's position is not improved by firms with more formalised and diversified boards. A Brazilian firm with or without CEO duality would seem to have a management encouraged to generate a loss for minority shareholders. Though there are these identified relationships, the behaviour of executive pay is more rooted in the individual company pay culture or some other company characteristic. Further research should investigate the individualistic traits of Brazilian firms that differentiate executive remuneration among them.

It is expected that the results of this paper would most likely bring about a capitalism structure that is curious and conscious enough to the plight of shareholder minorities. Furthermore, the results would probably also pave the way for a more holistic investor strategy and surveillance framework in line with the dynamics of the Brazilian capitalism structure and corporate governance. The research findings also add to the literature disapproving of CEO duality and existence of majority shareholders (Abels and Martelli, 2013; Jones and Mygind, 2011; Luo and Jackson, 2012; Sora and Natale, 2004; Zhang *et al.*, 2014) by analysing it within the context of Brazil.

Notes

1. BRIC – Brazil, Russia, India, China and South Africa.
2. Companies controlled by the elite family.
3. The influence of market forces.
4. The sample size from the quarterly data resulted in 360 responses over the three-year period.
5. This form of compensation is not common in Brazil.
6. Blockholder common shareholder equity = total common shareholder equity × percentage shares owned by blockholder.

   Minority common shareholder equity = total common shareholder equity – blockholder common shareholder equity.
7. Blockholder return on equity = return on equity × percentage shares owned by blockholder.

   Minority return on equity = return on equity – blockholder return on equity.

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