# Role of corporate governance in operating performance enhancement of mergers and acquisitions in Pakistan

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**ABSTRACT**

The present study investigates the relationship between corporate governance profile of acquiring firms and operating performance changes associated with merger and acquisitions in Pakistan. The financial sector mergers and acquisitions have been selected as sample transactions for the period of 1996 to 2008 and two years pre- and post-merger analysis has been conducted by using OLS regression. The estimated results indicated that post-merger operating performance of acquiring firms is positively related to its pre-merger level. Moreover, board size and CEO duality are negatively while board independence, outside dominated boards, and presence of large independent blockholder are positively related to change in post-merger operating performance of acquiring firms in Pakistan. The results were also robust with an alternative dependent variable of change in market value of acquiring firms. The results from replaced dependent variable were found to be more strong and cohesive with corporate governance profile of acquiring firms. Aligned with the existing literature, the study concluded that effective corporate governance mechanism does play its role in aligning the interests of managers with shareholders and enhances value for firms, particularly in large scale transactions of mergers and acquisitions.

## Introduction

Mergers and Acquisitions(M&A) are becoming important tools to respond the increased the global competition, rapid expansion of external markets and economic survival of firms. In order to remain competitive and heighten profitability, the corporations around the world are aggressively trying to develop new competencies and capabilities through M&A. Many CEO's and executives are of the view that *the bigger is better* and for this group of executives, corporate growth means, greater status, power and higher level of compensation irrespective of whether this growth is organic or through M&A. In this regards, Mueller (1969) explained the rationale behind conglomerate mergers and named this as theory of *Mangerialism*. He argued that the executives/managers are motivated by growth because their compensation depends upon the size of corporateand hence making investments in lower rate of return projects just to capture growth. In addition to this, organic growth of firm and CEO's ambition for high and early growth do not go hand in hand, so they adopt M&A as source of rapid growth.

There may be two broad motives for seeking M&A transaction. First and the most common motive is expected synergy or efficiency gains, principally creating value (Wetson et al.2004). Under this motive, mangers are induced to share in the value created. The second motive arises from pursuit of personal benefits of acquiring firms' mangers. The M&A tempted by this second motive by self-interest of managers may not create a value for shareholders and may even destroy value in case of wastage of resources (Jensen &Meckling, 1976; Shleifer and Vishny, 1988&1989 and Morck et al. 1990). There are two subsets of the later motive. The mergers of acquiring

firm may overestimates the value of target firm because they expect some positive synergy gains from M&A. Roll (1986) designated this behavior of mistaken and inflated estimates as *Hubris* behavior of acquiring firms' managers. On the other hand, in case ofmanagers' pursuit of personal interest, the operating performance will suffer if managersuse the scarce resources of firm in corporate mergers without any consequent return or value creation for shareholders.

The researchers in corporate finance have long recognized that the separation of ownership and control in firms has created the potential for agency phenomenon which may be costly. The mangers have substantial freedom to pursue their personal benefits at the expense of shareholders wealth due to limited incentive for shareholders to monitor the behavior and performance of agents. The wealth maximization of shareholders will not motivate corporate decision making in the absence of effective corporate governance mechanism (Nazir et al. 2009). Since the publication of *"The Modern Corporation and Private Property"* by Berle and Means (1932), a rich body of literature has focused on the ownership separation theory of principal and agent. Since then, researchers in finance have tried to explore the potential adverse effects of absence of effective control mechanism and misalignment of shareholders and managers interest. A considerable debate has been generated on the issue of weather managers maximize shareholder wealth or instead they focus on their personal objectives (Hubbard and Palia, 1995), or perquisites (Jensen and Meckling, 1976).

The relationship between managerial choices and corporate governance for value creation and enhanced operating

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performance is a topic of continuing interest (Gompers et al, 2003; Cremers and Nair, 2005; and Core et al., 2006). In this regards, one important question persists that how corporate governance profiles of acquiring firms affect the operating performance of the merger partners. There are several reasons associated with this issue. Firstly, mergers are probably the most significant decisions made bytop management of the firms. These sort of large scale and economically significant transactions are very well suited to test whether corporate governance structure of firms have negative or positive implications for value creation for shareholders (Brewer et al. 2010).

Secondly, many studies focused on initial market reaction (over or under valuation) based upon stock price performance of acquiring and target firms, yet little is known about the actual operating performance changes associated with M&A(Carlineet al.,2009). This idea is supported by the notion that market revaluation around announcement of M&A permits inferences to be drawn only about the market participants' belief about the enhanced operating performance but not about the actual performance changes as an outcome of M&A (Healy et al., 1992). Thirdly, and most importantly, the role of corporate governance has been investigated in the evaluation of cross sectional variations of market reaction to merger announcements. However, the overriding question as to how the effective mechanism of corporate governance affects the actual operating performance is yet to be explored.

Other than stock market performance, many existing studies have focused on efficiency gains of M&A by applying parametric and non-parametric techniques in US and other developed markets context (Berger and Humphrey, 1992; Worthington, 2001; Al-Sharkas et al., 2008). In Pakistani perspective, the only study on M&A is of Afza and Yusuf (2011) whichfocused on analyzing the efficiency of financial sector M&A. As per available literature, there is no specific study on the evaluation of M&A operating performance of firms in Pakistan. Following Healy et al. (1992) and Carline et al. (2009), the present study aims to fill this research gap by investigating the impact of corporate governance mechanism on operating performance changes associated with merger decisions. The remainder of the paper is organized as follows: next section deals with theoretical background of study, followed by research design in next section. The fourth section analyzes and discusses the results and final section concludes the findings with some practical implications.

**Theoretical Background**

The researchers in corporate finance have investigated the outcome of mergers from different perspectives. During the last few decades a number of studies on M&A have been conducted and several theories have been proposed and tested empirically. The studies include validating the economic impact of mergers on industry consolidation, shareholders value addition and post-merger performance of companies. A critical question addressed by these studies is whether a merging partner has achieved the expected performance or not. Several measures have been used to analyze the outcomes of a merger including short and long term impact of merger announcements, effect on shareholders' value etc. (Mantravadi and Reddy, 2008).A number of studies have been conducted in developed economies on post-merger financial performance evaluation. Lubtakin (1983) surveyed the literature on the topic and concluded that acquiring firms might get benefits from merging because of synergyeffect. Healy et al.

(1992) used a sample of 50 large US mergers between 1979 to 1984 to examine the post-merger operating performance and found that operating performance has been significantly improved for acquiring firms following mergers.

The literature has witnessed numerous researches on the managers' interests, corporate governance mechanism and merger performance. Morck et al. (1990) tested for managerial self-interest indirectly by arguing that managers with such behavior will either diversify or buy growth firms. Since this type of acquisition strategy is associated with reduced shareholders wealth, these M&A were driven by manager's self-interest. Kroll et al. (1990) found that compensation of CEO and executives was enhanced after the mergers due to increased size of new firm. Travlos and Waegelein (1992) reported that CEO shareholdings and incentive plans to be positively associated with cumulative abnormal returns (CARs) of acquiring firms. Ueng(1998) and Datta et al.(2001) found that shareholding and equity based compensation of managers induce them to announce M&A and lead to higher CARs. All of these studies concluded that, in a merger and acquisition decision, managers safeguard their own interest instead of shareholder wealth maximization.

The modern corporation structure is based upon separation of ownership theory due to which a costly agency phenomenon is more prevalent in the firms. The potential for agency conflicts inherent in this theory makes it imperative for publicly traded firms to have an effective corporate governance system. The most direct mechanism of corporate governance is the board of directors. The power to hire, compensate and fire top executives gives well functioning boards the ability to greatly reduce the conflicts of interest between shareholders and managers. Board size has been suggested by Lipton and Lorsch (1992) and Jensen (1993) as a possible factor to have an impact on monitoring quality in the firm. Yermack (1996) posit a negative relationship between board size and Tobin's q.Core et al. (1999) found that larger boards are more sympathetic to CEOs and they are able to extract higher compensation from larger boards. However, larger boards may do a better job as well and this notion is supported by Grinstein and Hribar (2004) who found that larger boards tend to pay smaller M&A bonuses to its executives.

Does CEO duality matter? Whether the person who is serving as the chairman of the board and the CEO of the firm at the same time can contribute to the better performance of the firm? This is, perhaps, one of the most critical, controversial, and important questions rose by corporate governance researchers (Finkelsten and D'Aveni, 1994). The agency theory suggests that more effective monitoring can be doneby splitting the positions of the board chair and CEO,and firms can earn higher returns by doing so. While studying a sample from banking industry, Pi and Timme (1993) concluded that higher return on assets was achieved by banks where two different persons were serving as CEO and Chairman. Yermack (1996) analyzed 452 US firms and found that market would be assigningmore value to firms where CEO duality did not exist. Brown and Caylor (2006) also came up with similar findings that CEO duality does matter for firm performance and separating these two titles will lead to greater performance of firms. Contrary to this agencytheory, the stewardship theory argues that CEOduality may create strong and visionary leadership byhaving unity of command and hence, leads to superiorperformance. There is a third school of thought aswell which advocates that there is no significant relationshipbetween

CEO duality and the firm performanceexists (Dalton et al., 1998).

Several studies have suggested that corporate boards can effectively prove to be an important governance mechanism to protect shareholder interest particularly when independent outside directors are present on the board (Fama& Jensen, 1983). The independent outside directors could help mitigate the agency problem and could monitor the large scale transaction like mergers. An independent board is in a better position to monitor and control mangers and hence can better align managers and shareholders interest (Dunn, 1987). Moreover, independent outside directors bring a greater breadth of knowledge and experience and board can improve its effectiveness (Vance, 1983). The literature also supportsthe idea that outside dominated boards (board with more outside directors than insiders) may serve better for the firm in achieving higher abnormal stock returns during the announcement period of mergers (Rosenstein and Wyatt ,1997). However,Subramanyum (1997) reported that independent outside directors add no extra value in acquisition performance. Brickly and James (1987) confirms that board structure and outside directorship are essential in determining the level of corporate control activity particularly in takeover.

In addition to board size, CEO duality and board structure, earlier studies have also documented the role of independent large blockholders in the corporate control decisions (Shleifer and Vishny, 1986). Independent large blockholders may use their voting power as a threat if the current management is not acting in the best interest of shareholders and to accept a reasonably attractive merger deal in order to have larger value gains. Brook et al., (1998) reported that presence of independent large blockholders increases the probability of a bank to beacquired, however on the contrary they also found that this presence is not increasing the merger announcement period abnormal returns. However, the independent large block holder's role in effective corporate governance is well documented in literature.

The earlier studies also focused on some control factors other than board structure. The relative size difference between acquirer and target is meant to capture the economies of scale and reduction in cost of production. However, melding culture in a merger may be more costly and difficult when there is less difference between the size of acquirer and the target (Benston et al., 1995). Other control factors may include asset size, leverage, market-to-book ratio, mode of payment, focus of merger, institutional ownership and board participation in meetings (Brewer et al. 2010). Smaller targets may be offer eda larger bid premium (Shawky et al. 1996) and relative size of target and acquirer is an important determinant of bid premium (Palia, 1993). These factors are controlled in explaining the relationship between corporate governance and operating performance of mergers in the current study.

Merger and acquisition in Pakistan has not received much attention. As per available literature of Pakistan, the only study of merger and acquisition of financial sector of Pakistan is of Afza and Yusuf (2011). They have focused on efficiency gains of bank mergers by using Stochastic Frontier Approach (SFA) and concluded that cost efficiency has increased following M&A,however; that efficiency gain in cost is negligible. As per the best of authors' knowledge, there is no research on role and effect of managerial behavior of executives in explaining the actual operating performance associated with the M&A decisions. Thus,the present study attempts to fill this research gap by investigating the role of corporate governance in explaining the post-merger operating performance in financial sector of Pakistan.

**Research Design**

The primary motivation for the study is derived from the considerabledearth of performance analysis of M&A during the time periods surrounding event. The strategic decision like M&A are takensometimes to discipline managerial behavior and earlier studies of efficiency analysis of M&A have not taken into consideration the corporate governance and managerial perspectives of these decisions. The present study contributes in finance literature by analyzing the actual operating performance of acquiring firmsdue to effective corporate governance structure of acquiring firms.

**Dependent Variable**

An evaluation of actual performance effects of an M&A must be reflected as a change in operating efficiencies. The earlier studies in M&A literature have focused only on stock price changesdue to merger announcements. However, the evidence derived from these studies is inconclusive because it is difficult to segregate the effect of M&A from other parallel events of interest happening in capital markets.  Following Carline et al. (2009), the present study focuses on the operating performance changes associated with the pre- and post-merger period. The operating performance has been measured through operating cash flows of acquiring firm as, by construction, this variable is neither affected by method of accounting for merger nor influenced by its mode of financing (Healy et al., 1992). Operating cash flows have been deflated by the market value of the firm for scaling purposes and measured at the end of two years prior and two years followed by merger year. To analyze the change in operating performance due to M&A, change in two years average of pre-merger and two years average of post-merger operating cash flows scaled by market value of firm has been calculated and this variable is named as change in Operating Performance (ΔOP). The post-merger operating cash flows are for acquiring firms only while pre-merger operating cash flows are value weighted average of pseudo-merged firms with all its merging partners. The weight for merging firm is its market value of firm relative to market value of pseudo-merged firms with all merging partners. The weights for target firm/s are simply one minus weight of acquiring firm.

**Independent Variables**

The present study classified independent variables into four categories; (1) acquiring firms' corporate governance variables; (2) acquiring firms' control variables; (3) relative variables of acquiring and target firms; and (4) other variables. The acquiring firms corporate governance variables are board size *(BOS)*, CEO duality *(Duality)*, board independence *(BI)*, outside block dummy *(Block)*, institutional ownership *(IO)*, and outside dominated boards (OS-Domino). BoS has been measured by the total number of board of directors present in the firm. The firms having their CEO as the chairman of the board too nominated as CEO Duality firms. The variable duality takes of 1 for firms with dual status of CEO, and zero otherwise. BI is the ratio of outside directors, which are non-executive and are present in the board to monitorthe management of firm. Higher the board independence, greater the alignment of managerial objectives with shareholders' interests and lower the agency cost. Ithas been calculated using the following formula:

$$BI= \frac{1}{BoS} \times \frac{Outside\ Director}{Inside\ Directors}$$

Block is a dummy variables having value of 1 if at least one outside large blockholder is present on acquiring firm board of directors and zero otherwise. The presence of outside large blockholders can play an important role in monitoring the managers and maximization of shareholder wealth. Institutional ownership is the fraction of shares of acquiring firm held by various institutional investors to the total shares outstanding. Outside dominated boards (OS-Domin) are for firms if more than half of total directors are from outside. This is also dummy variables takes the value of one in firms where more than 50% of the board consist outside directors.

Some control variables of acquiring firms are also considered for analysis. Market value of the firm is taken as proxy for firm size (Size) measured as total number of issued stock multiplied by market price of stock plus book value of debt. Cash liquidity (Liq) is total cash and cash equivalent relative to total asset minus cash and cash equivalents. Leverage (LVRG) is the ratio of total debt to total asset of firms, and (Q) is Tobin's q ratio for acquiring firm. All these control variables are averaged for two years pre-merger period. Moreover, inorder to capture the related efficiency and suitability of merger, the relative size (RelSIZE), relative liquidity (RelLiq),relative leverage(RelLVRG) and relative Tobin's q (RelQ) are also calculated for analysis purposes. RelLiq and RelLVRG are the absolute difference between the Liq and LVRG ratios of acquirer and target firms.RelSIZE and RelQ are size and Q of acquirer relative to those of target firms.Other factors include FOCUS and YEAR dummy. FOCUS is assigned the value of 1 if both acquirer and target firms are from the same industry and zero otherwise. YEAR dummy is included into account for the effect of omitted macroeconomic variables and other activity over time which may influence share prices and hence overall value of M&A. The year dummy is assigned dummy numeric values in chronological order for the window period.

**Sample and Data Sources**

The current study uses M&Awhich took place during 1996 to 2008. The choice of the sample year is based upon the fact that the data regarding (M&A) in Pakistan is available from the year 1996. The final year is 2008 since we have to select two years' post-merger period and M&A completed in 2009 will not have two years post-merger data. Only financial sector M&A have been selected for the analysis. There are total 70 M&A during the period of 1996-2008 out of which there are a total of 36 acquiring firms and 68 target firms. Since the complete data was not available for some of the firms so finally it left us with 32 acquiring firms merging with 62 targets. The data regarding financial and corporate governance variables has been collected from annual financial reports of acquiring and target firms for two years pre- and post-merger period whereas, the stock price data is obtained from the daily bulletins of Karachi stock exchange(KSE) and various issues of Business Recorder.

**The Model**

In contrast to most of earlier studies in M&A literature, the present study attempts to model the effect of corporate governance mechanism on the actual operating performance change following merger of acquiring firms in financial sector of Pakistan during the year 1996 to 2008. Two years pre- and post-merger data has been pooled and change in operating performance for acquiring firms has been observed. Equation 1 is the proposed model for the study.

$$\Delta OP_i = \alpha + \sum_{j=1}^{n} \beta_i(CG) + \sum_{k=1}^{m} \beta_i(Control) + \sum_{l=1}^{p} \beta_i(Relative) + \beta_i(YEAR) + \beta_i(FOCUS) + \varepsilon_l$$

***Where:***

$\Delta OP_i$ = *Natural Log of change in operating performance change of acquiring firm i for two years pre- and post-merger period,*

*CG = Corporate governance variables vector including BoS, Duality, BI,IO, and OS-Domin. for acquiring firm i before merger,*

*Control = Control variables vector including SIZE, Liq, LVRG, Q, and OP-pre for acquiring firm i before merger,*

*Relative = Relative variables vector including RelSIZE, RelLiq, RelLVRG, RelQ of merging partners for merger i,*

$Year_i$ = *Year dummy variable with numerical values in chronological order starting with year 1996 for merger i,*

$FOCUS_i$ = *Focus dummy takes the value of 1 of both merging partners for merger i belong to the same industry, zero otherwise,*

$\alpha$ = *intercept,*

$\beta_{j,k,l}$ = *estimated parameters of predicating variables,*

*n = total number of Corporate Governance variables of acquiring firm i,*

*m = total number of control variables of acquiring firm i,*

*p = total number of relative variables of acquirer i and its merging partners,*

$\varepsilon_l$ = *residual error of the predicted model*

Ordinary Least Square (OLS) regression has been used for estimating Equation (1). OLS has been validated for its basic assumptions. The dependent variables has been tested for normality using 1-sample Kolmogorov-Smirnov test and declared as a normal variable. The values of Durbin-Watson test are between tolerance levels for all models indicating no autocorrelation between the residual and dependent variable. Moreover, lower values of Variance Inflation Factor (VIF) also show that there is no serious problem of multicolinearity among the independent variables in the proposed models. Two OLS models have been estimated; one with full set of corporate governance and all control variables while second model only considers the corporate governance variables in its reduced form. The results of analysis are presented and discussed in next section of the study.

**Analysis and Discussion**

Table 1 provides some descriptive statistics about the sample firms in the present study. Panel A reports the corporate governance profile of acquiring firms two years prior to M&A and acquisition transaction.In total, there are 32 sample acquirers involved in seventy mergers transactions with 62 target firms. The average board size is 7 members ranging between minimum of 7 to maximum 10 directors on the board for acquiring firms. On average, 23% of the sample acquiring firms have dual status of CEO along with chairman of the board of directors, 69% of the acquiring firms have external independent large blockholder on their board of directors whereas same number of firms is dominated by external non-executive directors.Composition of board of directors, as per measurement used in this study, has 31% independence which varies from 4% to 89% in the sample. Finally, institutions own 58% average stake in firms involved in M&A in Pakistan during the period of 1996 to 2008.

Panel B,C, and D of the Table 1 report financial variables of all, acquiring, and target firms averaged for pre-merger period,

respectively. It can be observed from the table sample firms have 7,461 millions of book assets in which a large share belongs to acquiring firms which have 15,649 millions of book assets. The acquiring firms are quite large compared to the target firms with respect to book assets, market capitalization and market value of firm. Overall, leverage ratio of merger partners prior to merger is 39% to their total assets whereas this leverage ratio is quite low in case of target firms (30% only) considering the fact that sample firms belong to financial sector which relies heavily on external's equity. The average q ratio of overall sample firms is not upto the mark and it falls below the minimum benchmark of 1.0. This q ratio is much better in targets where there is a positive difference of 0.11 in Tobin's q ratio. In addition to q ratio, the cash liquidity position is also better for target firms than acquirers i.e. 0.46 in comparison to 0.37 for acquirers. Finally, there is no substantial difference in the operating cash flows of acquiring and target firms.

This table presents some descriptive statistics about the merging partners pre- and post-mergers. Board Size the number of directors on board, CEO duality is the dual status of CEO as chairman also, Board independence is composition of board of directors, Institutional ownership is percentage ownership held by institutional investors, block holder is dummy variable for firms with at least one large outside block holder on board and Outside dominated are boards with more that 50% outside directors. The Book Assets, Market Capitalization, Market Value of Firm, and Cash Flows are in million Pak Rupees. Market Capitulation has been measured as number of ordinary shares issued times market prices of firm's shares. Market Value of Firm is Market Capitalization of Firm plus book value of total debt. Tobin's Q is the ratio of Market Value of Firm to Book Assets. Leverage is total debt to Book Assets. Cash Flows are operating cash flows generated internally. Cash Liquidity is the ratio of cash and cash equivalents to Market Value of Firm.

Table 2 analyzes the financial position of acquiring and target firms prior to and after the M&A deal. Panel A differentiates between the financial positions of acquiring and target firms prior to merger and use Independent Sample t-test to compare the means of these two sub sets of sample firms based on theaveraged data two years prior to M&A. The results of t-test confirms our descriptive analysis that there is a significant difference between the acquiring firm and target firm prior to merger in terms of books value of assets, market capitalization, market value of firm, and leverage ratio. However, there is no statistically significant difference between acquirer and targets based upon the Tobin's q ratio, cash liquidity, and operating cash flows two years before the merger and acquisition. Panel B reports the financial position of acquiring firms two years pre and post-merger period. The paired sample t-test is used to compare the pre and post event financial position. The effect of M&A could be seen only in book value of assets, market value of firm, and leverage, all of which have increased following the M&A. Market capitalization and Q ratio of acquiring firms has declined after the merger; however, this difference is not statistically significant indicating that merger event has not increased the q ratio, and market capitalization of acquiring firms.

This table compares the pre-merger financials of acquirer and target firms as well as pre- and post-merger descriptives of acquirer firms. Pre-merger Operating Performance is operating cash flows scaled with market value of firm for pseudo merged firms of potential merger partners whereas post-merger operating performance is the operating cash flows of acquiring firms scaled by post-merger market value of firm.

In order to check the differences reported in Table 2, pre- and post-merger analysis for the main variable of interest i.e. operating performance (OP) has been conducted using one sample t-test and results are presented in Table 3. Panel A of Table 3 summarizes the operating performance of acquiring firms on the either side of M&A in the sample. It is evident from the results that pre-merger operating performance is significantly different from zero in both of the mean and median. The pseudo-merged acquiring firms are generating 4.27% operating cash flow returns during the two years period prior to takeover deal whereas in 69% of the cases, these operating cash flow returns are proportionally positive. The merger related change is 1.1% which is statistically different from zero and there is 34% change in positive operating cash flows returns in acquiring firms after the merger. Given these results for the separate time period analysis of pre and post operating performance of corporate merger, the study found strong support for conclusion that merger event is leading operating performance positively. These operating performance effects for the sample of Pakistani M&A cases corroborate with the findings of Healy et al. (1992) and Carline et al. (2009).

This table reports some descriptives about the merging partners pre- and post-mergers. Tests of Mean and Median equality are presented along with regression results for model relating pre- and post-merger operating performance of merger. M&A related change is the difference in pre- and post-merger operating performance. **,* values are significantly different from zero (for means, medians, and regression coefficients), and significantly different from 0.5 for proportion at 5% and 10% level, respectively.

In Panel B of Table 3, the cross sectional results from an examination of the relationship between pre- and post-merger operating performances of sample acquiring firms are reported. The first regression has been run for pre-merger operating performance, where post-merger operating performance is dependent variable. The results reveal that there is positive association between pre- and post-merger operating performance of sample firms as indicated by positive coefficient of pre-merger operating performance. In the second regression, the dependentvariable is change in pre- post-merger operating performance. In order to reduce the skewness of this dependent variable, natural log transformation has been taken. The results are showing that pre-merger operating performance is negatively associated with the change in pre post-merger operating performance. However, lower F-values and weaker significant levels for the regression model are indicating the need to add some other variables into the model in order to have more insight into this relationship.

In order to validate the relationship between corporate governance profile of acquiring firms and merger related operating performance change in sample of acquiring firms in Pakistan, OLS has been used to estimate Equation (1) and results have been reported in Table 4. Model (I) presents the results of reduced model in which only corporate governance variables are used as predictors of operating performance change after the merger and acquisition. The F-value of the model is significant at 5% level indicating the overall fitness of the model. Durbin Watson (D-W) value of 2.475 is reflecting no autocorrelations among the residuals and dependent variable. Among six corporate governance variables used in the model, only Duality

and BI were found to be statistically significant at 10% level. Duality is negatively affecting the operating performance change following the merger confirming the agency theory of CEO duality discussed by Jensen and Meckling (1976). The results are also in accordance with some other researcher who found negative relationship between CEO duality and firm performance (Rechner and Dalton, 1991; Pi and Timme, 1993;Yermack, 1996; Brown and Caylor, 2006).

Moreover, Model (I) posit a positive relationship between the board independence of acquiring firms' board of directors and its associated operating performance change in post-merger period. The positive coefficient of BI is specifying the role of external unaffiliated board members in enhancing the firms' value in general and after M&A, in particular. The role of board structure and board composition has been greatly emphasized by Fama and Jensen (1983) and Jensen (1993). These studies noted that independent outside board members can better monitor the activities of executives and top management and help to mitigate the agency problem in order to increase the firm value. The results of present study are designating to the same direction that as the board independence will increase, the monitoring check will increase on managers and reduction in agency problem will be exhibited in value enhancing large scale transactions of M&A. The results are also in accordance with some earlier studies like Vance, 1983; Dunn, 1987; Rosenstein and Wyatt,1997; Brewer et al., 2010.

Model (II) estimates the Equation (1) in its full form including control and relative variables. In comparison to the estimated results of the previous model, the added significant variables are BoS, Block, OS-Domin, SIZE, RelSize, RelLiq and RelQ. Board size is inversely related to the merger related change in operating performance of acquiring firms in Pakistan. As the members of board of directors increase, the operating performance will be adversely affected, particularly in case of M&A. Jensen (1993) stated that "keeping boards small can help improve firm performance. When boards get beyond seven or eight people, they are less likely to function effectively". It has been a well-documented in literature that large boards do not function well (Lipton and Lorsch, 1992) and there is some empirical evidence of value destruction due to larger boards (Yermack, 1996; Brown and Caylor, 2006; Nogata et al., 2010). Moreover, positive coefficients of outside dominated boards and presence of external large blockholder on the board are also causing merger related change to be positive. Earlier studies also reported that external blockholders can use their voting power as threat for top management to accept a reasonably attractive merger offer; hence, enhancing the firm performance (Shleifer and Vishny, 1986; Brook et al., 1998; Brewer et al., 2010).

This table reports OLS estimates. The dependant variable 1 is ΔOP which is log of change in pre- and post merger operating performance of acquiring firms. The dependant variable 2 (in 4[th]column) is ΔMVF which is log of change of market value of firm in pre- and post-merger period. All other variables are calculated as reported in Table 1. Estimated t-values are in parenthesis. ***, **, * are statistical significant levels at 1, 5, and 10% respectively.

Among the control variables, relative size (RelSize), relative q ratio (RelQ), and relative liquidity (RelLiq) of the merger partners is reported to have a negative relationship with operating performance changes after merger. As the difference between the acquirer and target gets smaller, the operating performance tends to decline after the merger and acquisition.

This is due to the countervailing fact that merging of two firms of equal size (in terms of market value, managerial quality measured by q ratio, and excess cash liquidity) is quite a difficult task and this factor is most prevalent in financial sector mergers (Brewer et al., 2010). As per the organizational theorists, culture transformation and adoption gets more difficult and more costly when target is closer in size to the acquirer (Benston et al., 1995). Furthermore, the pre-merger SIZE of acquiring firm is found to be positively associated with operating performance change following M&A. This is quite obvious for larger firms to have higher operating performance prior and after the merger. In case of other variables, there is no difference in operating performance if both the target and acquirer firms belong to the same or different industry as indicated by insignificant coefficient of FOCUS.

**RobustnessOrdeal**

During the last decade, the financial sector of Pakistan is undergoing strict regulatory monitoring of State Bank of Pakistan (SBP) and Securities and Exchange Commission of Pakistan (SECP). There have been a lot of operational restrictions imposed by regulators on the financial sectors by raising the minimum capital requirements, compliance with the Basel II accord and increasing the number of bank branches in case of commercial banks. These restrictions were a part of financial market reforms introduced in early 1990s by the Government of Pakistan. After the introduction of these financial market reforms, the financial sector has started to go through strong industry consolidation in order to meet the minimum regulatory requirements imposed bythe regulators. Small financial institutions who found it impossible to meet theseregulatory requirements, adopted an easy exit through M&A. Multinational financial institutions were unable to increase the number of branches in such a short time, so they adopted the strategy of acquisitions. The M&A phenomenon gain momentum in early 2000s and this phenomenon is still continued (Afza and Yusuf, 2011). In order to validate the hypothesis that whether these M&A are driven by just regulatory requirement or efficiency/synergy motives are the driving forces of M&A in Pakistan, the present study re-estimate the Equation (1) with dependent variable of change in market value of firm in pre- and post-merger period.

The choice of market value of firm as dependent variable has valid justifications. If mergers in Pakistani financial sector are driven by regulatory requirement, i.e. either to increase the minimum required capital or increase the number of bank branches (market size). The effect of both of these requirements will be explained by this single variable of change in market value of firm (ΔMVF). Equation (1) has been re-estimated and results are presented in column 4 and 5 of Table 4. Model (III) presents the results of reduced model with corporate governance profile only of acquiring firms whereas Model (IV) contains full model results. The signs of coefficients for corporate governance variables are in accordance with our earlier discussion. Moreover, institutional ownership variable also became significant with a positive relationship with ΔMVFof acquiring firms following the M&A. BoS and Duality are adversely affecting the post-merger ΔMVFof acquiring firms whereas board independence, presence of external blockholder, outside dominated boards and institutional ownership are value enhancing corporate governance variables for acquiring firms after the merger. These results are in line with existing literature (Shleifer and Vishny, 1986; Yermack, 1996; Brook et al., 1998;

Brown and Caylor, 2006; Nogata et al., 2010; and Brewer et al., 2010).

The results are much stronger that Model (I) and (II) as reflected by the higher F-values, greater significance levels and higher adjusted $R^2$. Other control variables indicated similar behavior as in the earlier estimated models and discussed in previous section of results. One interesting finding is for RelSize of merging partners which is now positively associated with post-merger change in market value of acquiring firm. The positive sign of relative size variable of merging partners may provide some support to notion that corporate mergers may be driven by regulatory requirements to increase the size of acquiring firms. Due to the pressure by market controllers, acquiring firms may be forced to takeover or merged with equal size targets just to comply with the regulatory requirements. However, to empirically test this motive of acquiring firm is out of the scope of present study and this is left for some future research.

**Conclusion**

Mergers and Acquisitions (M&A) are becoming important tools to cater the increased competition, rapid expansion of external markets and economic survival of firms. In order to remain competitive and grow profitably, the corporations around the world are aggressively trying to build new competencies and capabilities through M&A. Many CEO's and executives are of the view that *the bigger is better* and for these group of executives, corporate growth means, greater status, power and higher level of compensation irrespective of whether this growth is organic or via M&A. In this regards, Mueller (1969) explained the rationale behind conglomerate mergers and named this as theory of *Mangerialism*. He argued that the executives/managers are motivated by growth because their compensation depends upon the size of corporate and hence making investments in lower rate of return projects just to capture growth. In addition to this, organic growth of firm and CEO's ambition for high and early growth do not go hand in hand, so they adopt M&A as source of rapid growth.

Following Healy et al. (1992) and Carline et al. (2009), the present study aims at investigates the impact of corporate governance mechanism on operating performance changes associated with merger decisions. The findings of the study are that CEO duality is negatively affecting the operating performance change following the merger confirming the agency theory of CEO duality discussed by Jensen and Meckling (1976). The results of present study are designating that as the board independence will increase, the monitoring check will increase on managers and reduction in agency problem will be exhibited in value enhancing large scale transactions of M&A. Moreover, as the members of board of directors increase, the operating performance will be adversely affected, particularly in case of M&A. Furthermore, outside dominated boards and presence of external large blockholder on the board also causing merger related change to be positive.

The present study also provides some practical implications for corporate managers, regulators, and investors. In the financial sector of Pakistan, the effective corporate governance profile of acquiring firms is causing positive changes in merger-related operating cash flow performance. Firms with smaller board size, separate positions for CEO and chairman of board, greater independence of the board, and having atleast one large external blockholders can achieve positive operating returns as an outcome of merger transaction. However, robustness analysis suggests that M&A in financial sector of Pakistan may be driven by regulatory requirements of financial market reforms. Validation of this notion is out of the scope of present study and this topic is left for future research. Further investigation could be devoted to validate this notion as well as examination of M&A in non-financial sector of Pakistan to confirm the results of present study.

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**Table 1: Descriptive Statistics**

*Panel A: Corporate Governance Profile of Acquiring Firms (pre merger)*

| Variables | Mean | Median | SD | Skewness | Min | Max | Percentiles | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *10th* | *90th* |
| Board Size | 7.5 | 7 | 0.81 | 2.1 | 7 | 10 | 7 | 8 |
| CEO Duality | 0.23 | 0.00 | 0.42 | 1.4 | 0.00 | 1.00 | 0.00 | 1.00 |
| Board Independence | 0.31 | 0.36 | 0.23 | 1.3 | 0.04 | 0.88 | 0.06 | 0.73 |
| Blockholder Dummy | 0.69 | 1.00 | 0.47 | 0.8 | 0.00 | 1.00 | 0.00 | 1.00 |
| Institutional Ownership | 57.8 | 58.8 | 20.1 | -0.6 | 7.60 | 88.6 | 33.9 | 85.9 |
| Outside Dominated | 0.69 | 1.00 | 0.47 | -0.8 | 0.00 | 1.00 | 0.00 | 1.00 |
| *Number of Firms* | *32* | | | | | | | |

*Panel B: Acquiring Firms (pre merger)*

| Variables | Mean | Median | SD | Skewness | Min | Max | Percentiles | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *10th* | *90th* |
| Book Assets | 7,461 | 348 | 27,017 | 4.68 | 31 | 173,750 | 57 | 5,935 |
| Market Capitalization | 2,222 | 87 | 8,680 | 5.24 | 6 | 61,375 | 27 | 3,174 |
| Market Value of Firm | 8,706 | 269 | 32,868 | 4.65 | 13 | 200,822 | 46 | 8,153 |
| Leverage | 0.39 | 0.24 | 0.35 | 0.52 | 0 | 1.13 | 0.03 | 0.91 |
| Cash Flows | 280 | 7 | 1,306 | 5.23 | (685) | 9,108 | (97) | 234 |
| Tobin's Q Ratio | 0.95 | 0.89 | 0.51 | 1.97 | 0.28 | 3.14 | 0.39 | 1.43 |
| Cash Liquidity | 0.43 | 0.09 | 0.88 | 4.57 | 0 | 6.53 | 0 | 1.29 |
| *Number of Firms* | *94* | | | | | | | |

*Panel C: Acquiring Firms (pre merger)*

| Variables | Mean | Median | SD | Skewness | Min | Max | Percentiles | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *10th* | *90th* |
| Book Assets | 15,649 | 1,332 | 41,804 | 3.06 | 81 | 173,750 | 125 | 84,923 |
| Market Capitalization | 4,975 | 170 | 13,881 | 3.23 | 23 | 61,375 | 46 | 27,250 |
| Market Value of Firm | 18,688 | 1,070 | 51,517 | 2.96 | 34 | 200,822 | 80 | 113,951 |
| Leverage | 0.55 | 0.66 | 0.35 | (0.25) | 0.02 | 1.13 | 0.04 | 0.92 |
| Cash Flows | 397 | 12 | 1,430 | 3.66 | (685) | 6,387 | (256) | 893 |
| Tobin's Q Ratio | 0.88 | 0.86 | 0.28 | 0.82 | 0.39 | 1.74 | 0.46 | 1.25 |
| Cash Liquidity | 0.37 | 0.22 | 0.43 | 1.67 | 0 | 1.58 | 0.04 | 1.19 |
| *Number of Firms* | *32* | | | | | | | |

*Panel D: Target Firms (pre merger)*

| Variables | Mean | Median | SD | Skewness | Min | Max | Percentiles | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *10th* | *90th* |
| Book Assets | 3,234 | 137 | 13,092 | 5.13 | 31 | 77,517 | 55 | 3,098 |
| Market Capitalization | 802 | 97 | 3,306 | 6.39 | 6 | 24,331 | 22 | 979 |
| Market Value of Firm | 3,553 | 99 | 14,799 | 5.15 | 13 | 85,040 | 34 | 2,839 |
| Leverage | 0.30 | 0.16 | 0.32 | 1.02 | 0 | 0.99 | 0.02 | 0.89 |
| Cash Flows | 219 | 5 | 1,246 | 6.53 | (417) | 9,107 | (37) | 134 |
| Tobin's Q Ratio | 0.99 | 0.91 | 0.60 | 1.74 | 0.28 | 3.14 | 0.35 | 1.77 |
| Cash Liquidity | 0.46 | 0.06 | 1.04 | 4.12 | 0 | 6.53 | 0 | 1.38 |
| *Number of Firms* | *62* | | | | | | | |

**Table 2: Comparison of M&A Partners: pre- and post-merger**

*Panel A: Pre Merger Comparison of Acquiring and Target Firms*

| Variables | Acq. Mean | Target Mean | Mean Difference | p-value |
|---|---|---|---|---|
| Book Assets | 15,649 | 3,234 | 12,415 | 0.0340 |
| Market Capitalization | 4,975 | 802 | 4,173 | 0.0260 |
| Market Value of Firm | 18,688 | 3,553 | 15,135 | 0.0340 |
| Leverage | 0.55 | 0.30 | 0.25 | 0.0010 |
| Cash Flows | 397 | 219 | 178 | 0.5340 |
| Tobin's Q Ratio | 0.88 | 0.99 | (0.11) | 0.3400 |
| Cash Liquidity | 0.37 | 0.46 | (0.09) | 0.6230 |

*Panel B: Pre MergerPost Merger Comparison of Acquiring Firms*

| Variables | Pre-Merger | Post Merger | Mean Difference | t-value | p-value |
|---|---|---|---|---|---|
| Book Assets | 15,649 | 30924 | 15,275 | 2.128 | 0.0410 |
| Market Capitalization | 4,975 | 4572 | -403 | -0.240 | 0.8120 |
| Market Value of Firm | 18,688 | 31936 | 13,248 | 1.903 | 0.0660 |
| Leverage | 0.55 | 0.65 | 0.10 | 1.977 | 0.0570 |
| Cash Flows | 397 | 1960 | 15633 | 1.578 | 0.1250 |
| Tobin's Q Ratio | 0.88 | 0.81 | -0.07 | -1.385 | 0.1760 |
| Cash Liquidity | 0.37 | 0.42 | 0.05 | 0.647 | 0.522 |

**Table 3: Operating Performance of Merger Partners pre- and post-mergers**

| Panel A: Operating performance around mergers | | | |
|---|---|---|---|
| | Mean | Median | Proportion Positive |
| Pre-merger Period | 0.0427* | 0.0275* | 0.69** |
| Post-merger Period | 0.0531 | 0.0326* | 0.72** |
| Merger related change | 0.0105*** | 0.005** | 0.34* |
| | | | |
| Panel B: Linear Regression for Operating Performance around mergers | | | |
| | OP-post | | ΔOP |
| Constant | 0.036 | | 0.009 |
| OP-pre | 0.401* | | -0.545** |
| | | | |
| *F-Value* | 3.873* | | 3.93* |
| *Adj-R$^2$* | 0.057 | | 0.086 |
| *D-W* | 1.831 | | 1.505 |

**Table 4: Factors Influencing Operating Performance of Acquiring Firms**

| Variables | ΔOP | | ΔMVF | |
|---|---|---|---|---|
| | Model (I) | Model (II) | Model (III) | Model (IV) |
| Constant | -0.085 (-0.107) | -.010 (0.687) | -0.172 (1.26) | -0.792 (0.439) |
| BoS | -0.256 (-1.075) | -0.448* (-1.961) | -0.185 (-1.177) | -0.062* (-1.963) |
| Duality | -2.507* (-2.01) | -0.166 (-0.549) | -0.097* (-1.647) | -0.053* (-1.821) |
| BI | 1.125* (1.99) | 0.251** (2.701) | 1.019*** (4.969) | 0.141** (2.240) |
| Block | 0.020 (0.880) | 0.529** (2.51) | 0.053 (0.332) | 0.077** (2.539) |
| IO | 0.021 (0.096) | 0.003 (0.991) | 0.120 (0.839) | 0.057* (1.882) |
| OS-Domin | -0.011 (-0.037) | 0.559* (1.890) | 0.495** (2.591) | 0.443** (2.160) |
| SIZE | | 0.991* (1.785) | | 0.130** (2.785) |
| Liq | | -0.067 (-0.499) | | -0.045 (-0.953) |
| LVRG | | -0.154 (-1.500) | | -0.016** (-2.316) |
| Q | | -0.615 (-1.436) | | 0.007 (0.905) |
| OP-pre | | -0.736** (-2.934) | | 0.031 (0.935) |
| RelSIZE | | -1.715* (2.010) | | 0.819*** (3.470) |
| RelLiq | | -0.575* (-2.010) | | -0.054* (-1.680) |
| RelLVRG | | 0.240 (1.177) | | -0.085** (-2.964) |
| RelQ | | -0.610** (-2.204) | | -0.081* (-2.009) |
| FOCUS | 0.119 (0.262) | 0.089 (0.152) | -0.365** (-2.264) | -0.312** (-2.012) |
| YEAR | 0.623* (2.030) | 0.372* (1.781) | .090 (0.623) | 0.130*** (4.286) |
| | | | | |
| *F-value* | 4.463** | 8.245*** | 130.341*** | 104.561*** |
| *Adjusted R$^2$* | 0.125 | 0.185 | 0.501 | 0.450 |
| *D-W* | 2.475 | 2.680 | 1.946 | 1.958 |