Response : Board Composition and Firm Performance : Evidence from Bangladesh – A Sceptical View

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Response: Board Composition and Firm Performance: Evidence from Bangladesh – A Sceptical View

Abstract
I have read the above paper with keen interest. The key finding of this paper is interesting: the appointment of independent directors has no perceptible influence on a firm's economic performance in Bangladesh. The conclusion was derived from a sample of 274 firm-years. The implication of this finding is also very significant for regulators in Bangladesh and elsewhere 'in their quest for harmonization of international corporate governance practices' Rashid et al. (2010, p76). This paper also complements the results of an earlier paper on an allied topic by Bhuiyan and Biswas (2007) where they found that (p22) 'corporate governance disclosure in Bangladesh is significantly influenced by local ownership, the SEC notification, and size of the company but belonging to financial or non-financial institution company, multinational company, age and size of the board of directors do not have significant impact on corporate governance disclosure. So steps should be taken for mandatory compliance of the SEC notification and for reducing the gap between large and small firms’ disclosure practices'.

Keywords
Board composition; Independent directors; Firm performance, Bangladesh
Response

Board Composition and Firm Performance: Evidence from Bangladesh – A Sceptical View

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Original Article

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1. Introduction

I have read the above paper with keen interest. The key finding of this paper is interesting: the appointment of independent directors has no perceptible influence on a firm’s economic performance in Bangladesh. The conclusion was derived from a sample of 274 firm-years\(^1\). The implication of this finding is also very significant for regulators in Bangladesh and elsewhere ‘in their quest for harmonization of international corporate governance practices’ Rashid et al. (2010, p76). This paper also complements the results of an earlier paper on an allied topic by Bhuiyan and Biswas (2007) where they found that (p22) ‘corporate governance disclosure in Bangladesh is significantly influenced by local ownership, the SEC notification, and size of the company but belonging to financial or non-financial institution company, multinational company, age and size of the board of directors do not have significant impact on corporate governance disclosure. So steps should be taken for mandatory compliance of the SEC notification and for reducing the gap between large and small firms’ disclosure practices’.

The issue of corporate governance is interesting and has gained significance after the collapse of Enron and more recently with the failure of Lehman Brothers in the US triggering a world-wide crisis. I must commend the authors for their work in this difficult area of research where data limitation alone can stymie their efforts. The paper contains a very good literature review and could have been even more interesting if studies on South Asian countries were included. However, the result obtained in this paper would have been richer if the authors were more diligent in some of the areas that I highlight below.

2. Modelling

The model is seemingly \textit{ad hoc} and may be \textit{misspecified}. The model is \textit{ad hoc} because the explanators need firmer theoretical underpinnings. The model is \textit{misspecified} because it omits some important relevant variables and will result in an \textit{omitted variable bias}. For exposition I re-write the Rashid et al. (2010) model below:

\[
Y_{it} = \alpha + \beta_1 \text{BDCOMP}_{it} + \beta_2 \text{DIROWN}_{it} + \beta_3 \text{LOGBDSIZE}_{it} + \beta_4 \text{CEOD}_{it} + \\
\quad \beta_5 \text{DEBT}_{it} + \beta_6 \text{LOGSIZE} + \beta_7 \text{LOGAGE}_{it} + \varepsilon_{it}
\]

Where

- \(Y_{it}\) is alternatively \(\text{ROA}_{it}\) (Return on Assets) and Tobin’s \(Q_{it}\) for \(i\)th firm at time \(t\)\(^2\)
- \(\text{BDCOMP}_{it}\) is the board composition
- \(\text{DIROWN}_{it}\) is the percentage of shares owned by directors for \(i\)th firm at time \(t\)
- \(\text{LOGBDSIZE}_{it}\) is the board size for \(i\)th firm at time \(t\)
- \(\text{CEOD}_{it}\) is the CEO duality for \(i\)th firm at time \(t\)

\(^1\) ‘A sample of 274 Bangladeshi firms is observed to determine the relationship among board composition, independent directors and firm performance’, in Rashid et al. (2010, p77) is misleading when compared with data given in Table 1 on p83. In fact, the sample size of the study is based on ‘An observation of 274 Bangladeshi firm-years is used in the study’ Rashid et al. (2010, p76).

\(^2\) In the paper \(Y_{it}\) does not appear on the LHS of the equation.
DEBT\textsubscript{it} is the debt ratio for \textit{i}th firm at time \textit{t}  
- LOGSIZE\textsubscript{it} is the firm size for \textit{i}th firm at time \textit{t}  
- LOGAGE\textsubscript{it} is the firm age for \textit{i}th firm at time \textit{t}  
- \( \alpha \) is the intercept, \( \beta \) is the regression coefficient of \textit{i}th variable and \( \epsilon \) is the composite error term  
- The subscript \textit{i} represents the different firms and \textit{t} represents the different years.

The above model tries to explain the profitability of firms (via two alternative measures: Return on Assets (\textit{ROA}) and Tobin’s \textit{Q}) by the explanators stated above. The overwhelming majority of explanators captures only the managerial aspect of the firm and ignores the demand-supply and innovation and technological aspects of the firm which contribute to profit. The notable omissions are the firms’ retained profits (re-investable surplus) which augment capital and add to profitability in the future. Similarly, firms’ R&D expenditure can also be profit-enhancing in the future. From these illustrations, the model is \textit{misspecified}. Further, it should not be estimated as a static model. A properly specified dynamic model must be developed to fully capture the factors contributing to profitability in a holistic sense.

A \textit{misspecified} model, such as the model in Rashid et al. (2010), with omitted relevant variables will \textit{overestimate} the parameters of the model. As an illustration, suppose the true model is:

\[
Y_t = \beta_1 + \beta_2 X_{2t} + \beta_3 X_{3t} + u_t
\]

but we estimate the following model:

\[
Y_t = \alpha_1 + \alpha_2 X_{2t} + v_t
\]

It can be shown that, \( \hat{E}(\alpha_2) = \beta_2 + b_{32} \beta_3 \)

where \( b_{32} \) is the slope coefficient of regression of \( X_3 \) on the included variable \( X_2 \). The bias due to omission of other variables can be shown in an analogous way. It can also be shown that \( var(\hat{\alpha}_2) \) will be \textit{biased} as well. See Kmenta (1985, pp443-446) for a fuller discussion.

Some of the included variables in the model such as \textit{LOGAGE} are questionable. The inclusion of this variable is justified by Rashid et al. (2010, p85) in the following way: ‘Firm performance can also be influenced by the age of the firms. Older firms are likely to achieve greater efficiency by reducing costs than younger firms (Ang et al. 2000). The variable of age (\textit{LOGAGE}) is defined here as the natural logarithm of years the firm is on the DSE.’ Thus a monotonic relationship is implied between the age of the firm and the firm’s profitability. This is not always true and the reasons are embedded in the structure of the firm in Bangladesh.

The ownership and control of firms are described by Rashid et al. (2010, p84): ‘Apart from a few controlling ownerships by foreign investors and government and financial institutions, the public limited companies in Bangladesh are in general mainly controlled by family members who are founding sponsors and/or directors, leading to a high degree of ownership control.’ The over-concentration of family ownership control is the surest sign of a non-monotonic relation between firm-age and profitability. For instance, the death of a family
patriarch and/or a falling-out among feuding family members often leads to disintegration within the firm management and adversely affects the profitability and viability of the firm. There are numerous examples of this in Bangladesh (e.g. Quasem Group of Companies, Ilias Brothers). Nevertheless, even an amicable division of the business among family members can potentially impair the future performance and profitability of the firm. A recent split in Partex Group\(^3\) (one of the family-owned business houses of Bangladesh), hit the headline of the leading Bangladesh English newspaper *Daily Star* on 6 July 2010 which reports: ‘The break-up process started before 1/11 (11 January 2007). I have done it for my necessity’, founder of the company M A Hashem said. ‘It is better to divide the business among the five sons before my death.’ The *Daily Star* hints that this ‘split’ will weaken the Partex Group.

Secondly, it may be argued that older firms suffer from inertia and a failure to innovate and thus they degenerate into oblivion. This is the Schumpeterian innovation process (new ideas + human capital + non-human capital). If new ideas do not emerge from older firms, then the ‘perennial gale of creative destruction’ sets in and newer firms with newer ideas enter the market and engage in rent-seeking activities thus ‘killing’ the older firms. Thus, it may be misleading to relate profitability with the age of the firm.

3. **The Composite Error Term** \(e_\alpha\)

The estimable model includes variables that vary across *TIME* and *CROSS-SECTION*. The model adopted in the paper assumes cross-sectional homogeneity and independence. How can this be possible for firms of different sizes in different industry groups in the sample? For example, corporate culture, the CEO’s style and the rules of the company’s bylaws give rise to a firm-specific, industry-specific effect that is constant over time but which is different between firms. Likewise, cross-sectional dependence is a real possibility where one firm’s behaviour and actions dictate the behaviour and actions of other allied firms. The authors are aware of the firm-specific heterogeneity when they write (p87): ‘Also, the data were collected from entities ignoring the underlying differences of their operations, as any two organisations are not the same.’

Rashid et al. (2010) could have modelled this behaviour in the composite error term \(e_\alpha\). This may be the Achilles heel of this paper from which the conclusion is drawn. The authors fail to mention the assumptions of this error component of the model. This composite error term is vital and explicit assumptions must be invoked by the authors. Otherwise it can be a Pandora’s box, as the following discussion shows.

If the individual firm-specific effect is taken into account, then the individual error component for the \(i\)th firm in a sample can be denoted by \(\nu_i\). Therefore, the total disturbance in the \(i\)th observation is \((\nu_i + e_\alpha)\).

Two different scenarios can emerge and these can have implications for estimating the parameters of the model. In case 1, if the explanators are contemporaneously uncorrelated with the disturbances, \(\nu\) and \(e\), then Ordinary Least Squares (OLS) yields a consistent estimate of the parameters. The disturbances are generally homoscedastic (with a variance equal to \(\sigma^2_\nu + \sigma^2_e\)) but the disturbances are correlated with one another since all of the

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\(^3\) With a modest start in 1959, Partex began with tobacco trading and prudent entrepreneurship under the leadership of Hashem. It now owns over 25 units – from tobacco to food, water, soft drinks, steel containers, edible oil, furniture, yarn and the IT sector. The group employs over 10,000 people. (*Daily Star*, 6 July 2010)
observations on a given individual firm share an identical value of $\nu$. Since some disturbances are correlated, OLS is not the efficient estimator in this case. Instead we need to use the Feasible Generalised Least Squares (FGLS) for estimation.

In case 2, it can so happen that the individual firm error components may be correlated with the explanatory variables. Since the explanatory variables are contemporaneously correlated with the disturbances, neither OLS nor FGLS is a consistent estimator of the parameters. Instead we need to resort to the fixed-effect estimator to derive efficient estimates of the parameters. Thus the choice of the fixed-effect or the random-effect estimation method depends on the researcher. Rashid et al. (2010) simply used OLS and thus the derived estimates are not efficient.

4. The Sample Period

This study has used unbalanced panel data with nearly 94% of the observations bunched in three years (2006, 2007 and 2008) and the remaining 6% of data are strewn across two years (2005 and 2009). The sampled years 2007 and 2008 are ‘abnormal years’ for the Bangladesh economy and politics. A quasi martial-law prevailed under the army-backed caretaker interim government. Civil rights under the Bangladesh Constitution were suspended from 1 November 2007 until the general elections were held in December 2008 and there was a return to civilian government in January 2009. During this period the army-backed caretaker government incarcerated many eminent politicians (including former prime ministers) and businessmen to purge the country for holding a free and fair election. Many leading businessmen went into self-exile in neighbouring countries to avoid being arrested. This purge instilled fear among businesses. As a result business confidence was low and many businessmen ‘sat on their hands’ until the term of the caretaker government was over. Thus, during the period 2007 and 2008, business activity was in the doldrums. GDP growth slowed down largely because of the apathy and indifference of Bangladeshi businessmen and this was exacerbated by the onset of the Global Financial Crisis. To make matters worse, Bangladesh was battered by a severe flood followed by a devastating cyclone. The Ministry of Finance (2009, p1) described the economic conditions in 2007 and 2008: ‘The economy of Bangladesh continue to demonstrate considerable resilience during FY2008-09 despite the twin shocks arising from global recessions and the adverse effects of the consecutive floods and the cyclone-Sidar of the last fiscal year (FY2007-08). The economy is estimated to have grown at a rate of 5.9 percent, slightly below the growth rate (6.2 percent) of FY2007-08. The key feature of the economic performance during FY2008-09 is the strong recovery in agriculture sector coupled with moderate growth in industry and service sector.’

Thus, the sample period (2005-2009) is very short (effectively 3 years since 94% of observations are drawn within this period), and it is also not representative for assessing the profitability of firms in Bangladesh.

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4 Corporate Governance Notification (2006) (CGN) for the appointment of ‘independent directors’ (Condition 1.2, p1) was issued on 20 February 2006 and its effects will only be known after a time lag. Further, Condition 1.2 is NOT a statutory requirement and no penalty is envisaged in the CGN for non-compliance. Refer to Bhuiyan and Biswas (2007) for the recommendation of mandatory compliance by firms in Bangladesh.
5. Results

Table 5 contains the crucial results of this study. It would be useful if the authors included the statistical or theoretical justification for measuring some of the variables in natural logarithm and some of the variables in levels. It would also be useful to the readers if a fuller discussion was provided on the derived results. The authors simply concentrated on examining the statistical significance of the coefficient of $BDCOMP (\beta_1)$ for deriving their conclusion. The magnitude of the estimated coefficient is substantial (0.144 and 0.418 respectively in the two models). The sign of $\beta_1$ is POSITIVE indicating the independent directors’ positive contribution to profitability; however, this substantial positive contribution of independent directors is rejected by the authors on the grounds of its statistical significance. Researchers need to decide on the dilemma: statistical significance versus economic importance. I would opt for the latter a la Miller and Rodgers (2008, p146): ‘A challenge in formulating appropriate guidelines is arriving at options that suit the presentation of different types of economic analyses, ranging from descriptive studies to hypothesis testing to program evaluations and policy proposals. It is our aim that these guidelines help researchers convey quantitative results more clearly, set standards that facilitate accumulation of new knowledge, generate findings that are relevant for policy reform, and address feminist critiques to put more emphasis on the substantive issues behind statistical analyses.’

It would be useful to discuss the vital information of the estimated model such as $R^2$, F-statistic etc. and provide a thorough discussion on the estimated coefficients. The diagnostic tests of the estimated model (namely tests for heteroscedasticity and autocorrelation conveying information about the assumed ‘well-behavedness’ of the error term), have been omitted in the paper. From my experience I suspect heteroscedasticity in the estimated model because of the cross-sectional nature of data. The robustness of the single-equation result could have been assessed if the authors reported the following in a separate table: the Hausman test or Ramsey’s RESET test to justify the selected model; the Jarque-Bera test for assessing the normality of residuals; the CUSUM and CUSUM-Squared tests for testing parameter stability, etc. These vital statistics would have been very useful in assessing the internal validity of the results and consequently the external validity of the model.

6. Conclusion

Here I quote the authors (Rashid et al. 2010, p87): ‘The relationship between outside directors and firms’ performance is not clear explicitly in case of developed economies (Judge et al. 2003). This study also supports this argument, finding that outside independent directors are good monitors but cannot add economic value to firms in Bangladesh.’ I am not sure how the authors can claim that external independent directors are ‘good monitors’, as this has not been tested in this paper? Without a rigorous proof such an ambit claim is untenable. Lastly, on the basis of weaknesses of the data stated above and the simplifying assumptions about the firms’ behaviour, the conclusions of the paper are feeble.

Overall, this paper is a good start in an important area of research. I hope that the authors can overcome some of the gaps acknowledged in their conclusion (p87). I suggest that the authors develop a properly specified econometric model (preferably a dynamic model) which is estimated with a robust estimation procedure (such as a fixed effect model) and with a longer data set.
References


