Power and Likelihood of Financial Statement Fraud: Evidence from Indonesia

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Abstract—The present study investigates whether the distribution of power between two major internal corporate governance mechanisms: Chief Executive Officer (CEO) and Board of Directors (BOD) is associated with the likelihood of financial statement fraud in Indonesian Public Listed Companies (PLCs). We employ principal component analysis on number of characteristic of power related to CEO and BOD to acquire each of three factors that characterize types of power between these key corporate governance actors. Furthermore, we extend the study by analyzing the dyadic pairing of low and high CEO and BOD power relationships and how they influence the likelihood of financial statement fraud in an emerging market country setting. The overall findings suggest when the BOD expert power increases (and to some extent when the BOD ownership power decreases), the likelihood of financial statement fraud decreases through a consistent monitoring and supervising mechanism. The findings of this study underline the need of the proactive/participatory boards in a company setting to mitigate the likelihood of financial statement fraud. This study supports the calls for maximizing the role of BOD in Indonesian companies comprehensively.

Index Terms—corporate governance, CEO and BOD powers, likelihood of financial statement fraud, dyadic relationships

I. INTRODUCTION

Large corporate failures, financial scandals and economic crises in the last decade i.e. the wave of accounting scandals occurred in Enron, WorldCom, Xerox, etc. have increased the awareness on the importance of good corporate governance. Subsequently, prompt responses have been applied to minimize the potential of this illegal corporate behavior. As such, it shows how pivot this issue to be well-managed globally.

It has been acknowledged that research in corporate governance field have been mainly developed under the agency theory, as well for the effectiveness of the BOD related studies. The adoption of agency theory mainly focuses on the issue of separation between ownership and control in preventing manager (agent) acting in an opportunistic manner to increase their personal wealth at the expense of the owners (principal) of an organization [1]. Thus, the effectiveness function of board’s members in conducting the highest level control mechanism is reflected from the existence of independent and non-independent directors [2].

Since 1992, number of countries has started national initiatives to improve corporate governance in their economies. Countries such as the United States, Germany, Australia, Brazil, South Korea, Thailand, Malaysia and India have drawn up national reports and started to implement recommendations drawn up by expert groups on both of government and company levels. So has Indonesia with recently acknowledged as one of the emerging market country which is influenced by concentrated shareholdings. Many of listed companies in Indonesia are family owned or controlled, reflecting different cultural traditions and aspirations [3]. In addition, as one of the G-20 member, Indonesia is a unique example where is recognized based on its promising financial performance in the fiscal and monetary sectors, and the image of corruption country are portrayed in a single frame.

In a more detail, a relevant study in Indonesia emphasizes that the failure in implementing corporate governance substance in Indonesia are caused by a culture condoning and perpetuating endemic corruption and the failure of reform in the weak and corrupted law enforcement system [4]. Even though the Code of Conduct has been updated by the National Committee for Corporate Governance (NCGC); directors and commissioners are still perceived untouchable. The set up of a functional audit committee with certain characteristics as required by the stock exchange are considered lacking of performance since there are a tendency in the lack of

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interest for remuneration committees, selection committees or risk audit committees.

Our main contribution is to apprehend the characteristic of power between CEO and BOD that are related with likelihood financial statement fraud, and to provide insights that certain interaction of power between CEO and BOD leads to different consequences onto both fraud and no-fraud companies. The focus on Indonesian listed companies in Indonesian Stock Exchange (IDX) is not only based on the ease of resources availability but also due to the fact that more of high profile business actors employed in the listed companies and they are considered as more likely to be at the front line in the corporate governance development than the unlisted one [5]. Lastly, while there has been limited evidence provided on the relationship among interactions of CEO-BOD power and alleged fraud companies following the improper disclosure of related party transactions and material misstatements as two strong indicators for financial statement fraud [6], it will provide a significant contribution for the literature in this area.

The remainder of this paper is organized as follows. Section 2 provides theoretical background and literature review. This is followed by discussion of research design, sample, data, and results. The last section describes conclusions, limitations, and suggestions for future implications.

II. THEORETICAL BACKGROUND AND LITERATURE REVIEW

The majority of corporate governance studies have analyzed the monitoring and supervision functions of board of directors in corporate organizations. These studies predominantly use the agency theory as the main theoretical foundation to investigate the effectiveness of monitoring roles of directors including audit committee in protecting shareholders rights under the governance process [7], [8]. The condition as above leads to one of critical issues that has emerged in the current studies of corporate governance: the declining of its marginal utility. [9], [10] argue that the extensive use of the agency theory may be lacking to frame the effectiveness of governance structure, particularly in the accounting/auditing field. Although the agent-principle perspective leads to the distribution of BOD power over the manager, it limits the participation of management as the other key role on the governance process. As a result, complementary theories can help to generate the greater complexity of organizations and emphasis the agency theory’s based-studies that go beyond from the strict role of monitoring by one party [7].

The main focus on this paper highlights the dyadic relationship of power within corporate governance mechanisms. Power is the state of affairs which holds in a given relationship and based on certain qualities or capabilities derived from personal aspects and situational conditions [11]. In particular, the focus in the relationship between CEO-BOD powers is reflected in [12], [13]. They emphasize that the capacity of directors or CEOs to bring about outcomes tends to be developed in the interactive functions between personal attributes and the situational environments in which the entity operates. Thus, to include the management in the corporate governance framework will provide different perspectives on the extent of power and type of collaborations between major corporate governance actors [7], [9].

In such similar way, the importance of corporate governance also attracts the academic interests towards the improvement of the corporate governance system and its implications [8]. Firstly, it is due to the association between weaknesses in corporate governance and fraudulent financial reporting scandals occurred in several high-profile companies (Enron, WorldCom, Adelphia, Parmalat). This concern leads to another motive to improve the corporate governance practice over the financial reporting process.

Few meta-analyses on the corporate governance studies show that several organizational theories have been referred to structure corporate governance proxies. They are upper echelons, agency, strategy process perspective, managerial hegemony and managerial hegemony that considered as most often theoretical perspectives used in the corporate governance and strategic leadership research [14]. To the extent of accounting and auditing subjects, agency, resource-dependency, managerial hegemony, and institutional theories are considered as the major perspectives to investigate about the effectiveness of corporate governance mechanism to various accounting/auditing outcomes [7]. Each of these foremost theories is based on different assumptions and perspectives. However, they provide another insight on the diversification of power and control. It leads to different conclusions with regard to distribution of power among the organizational leaders; in this case are CEO and BOD. This section focuses on specific theories which tend to highlight the particular aspects on CEO – BOD power relationships.

A. Agency Theory

As a major reference in the corporate governance study, this theory emphasizes that shareholders need to develop a system of checks and balances to ensure the CEO (as a representation of management) performs and managing appropriate risk-taking consistent with what underlined by shareholders as principals. This system will legitimize the shareholders’ power to monitor managerial activities and set a relevant boundary to mitigate the unfavorable managerial actions and behaviors. Consequently, setting-up the corporate governance structures is expected to minimize these agency conflicts with the absent of shareholders in routine managerial activities [1].

B. Resource Dependency Theory

A mutual relationship occurred between power and dependency among organizational actors [15]. The reciprocal power – dependency relationship is a key to the resource dependency framework. When essential resources are attached to an entity; organizational actors
will be more likely gaining power within the particular organization.

With regards to the corporate governance research, the resource dependency is indicated from existence and qualification of outside directors to the BOD that can facilitate the organizational interactions with its external environmental entities [7], [16]. With regards to the dyadic relationship of power between CEO and BOD, the resource dependency perspective underlines the interaction of their power to hand-in-hand achieving the company’s objectives. It can be reflected from their abilities to provide companies with essentials resources that are not only for perform their individual duties but also to maximize the organizational processes towards the excellent performance of the company.

C. Managerial Hegemony Theory

This theory highlights the dominancy of CEO and/or top management team in a company setting [7]. He/she legitimizes his/her position by selecting cronies and associates who will never criticize their actions thus making them as passive participants in the governance processes. The directors are considered as the inferior and they will become reliant on the management eventually with regards in obtaining and analyzing relevant information and insights about the company and its industry. In sum, their existence displays as the symbolic role rather than managing outcomes for the organizational changes and/or management oversight [9].

D. Institutional Theory

The institutional theory considers a comprehensive set of organizational dynamics including the institutional environments and the ceremonial structures of actors within an institution. This perspective is necessary to understand the substance of the interactions between different governance parties and how these parties use their symbolic gestures and activities at a time [7].

This institutional perspective also implies that there is a tendency to involve generic individuals into organization i.e. board members may come from similar background and the effectiveness function of audit committee (AC) [17]. Yet, it may interrupt the effectiveness of boards’ performance as they tend to rationalize their legitimacy by reducing challenges to each other [7]. In the other word, the institutional theory emphasizes how governance mechanisms fulfill ritualistic roles that help legitimize the interactions among the various actors within the corporate governance mosaic.

This paper points a central concept that, while there is no single theory considered to provide a wide-ranging clarification on the CEO–BOD power relationships and their influence towards the likelihood of financial statement fraud. An attempt to engage these perspectives is expected to offer important insight upon this scheme as well as to update the theoretical and technical aspects of corporate governance.

III. RESEARCH DESIGN AND METHODOLOGY

A. Sample Selection

This study examines 202 companies listed on the Indonesia Stock Exchange (ISX) comprises of 101 fraud companies and 101 no-fraud companies from 2000-2011. The sample selection procedures for this study are modified from those developed in previous related studies in developed countries [18]-[20]. Since there is no specific public release e.g. the Accounting and Auditing Enforcement Releases (AAERs) as published by the US Security Exchange Commission (SEC) found in Indonesia, hence several phases are applied for classifying fraud companies relevant with the local context.

Firstly, we identified the companies that experiencing fraud from the annual reports and media release publications of the Indonesian Capital Market Supervisory Agency/ ICMSA, (abbreviated in Indonesian as BAPEPAM) following sanctions given from prior investigation on (1) improper disclosure of related party transactions and (2) materially misstatement found in the financial statement. These two major fraudulent activities on financial statement are also concerns against the local capital law. In addition, the fraud companies’ data is also supplemented from other leading business newspapers in Indonesia.

The category of matched-pair sample companies are determined as follow: (1) The no-fraud companies have to be similarly categorized within the ICMSA two-digit industry code; (2) None of the matched-sample companies are part of the sample-companies or involve in any kind of reported fraud criteria.

B. Variables Measurement

This study relies on prior studies on characteristics attached to key players of corporate governance: CEO and BOD; that are reflected in number of relevant theories to determine the dyadic relationships of power between CEO and BOD. Another motivation is to examine onto what extent these types of dyadic relationships influence the likelihood of financial statement fraud in Indonesia PLCs. The summary of variables and their measurement is presented as follow:

- Independent Variables consists of characteristic of power attached to CEO (CEO Dominance, CEO Duality, CEO Stock Owned, CEO Related to Founder/Founder of the company, CEO’s Family Shares, CEO Relatives as Sitting Members on the Boards, CEO Functional Background) and BOD (Outside/Independent, Directors Size of the BOD Directors, Stock Ownership, BOD Member(s) as Founders or Relatives of the company’s Founder, Frequency of Board Meetings, Existence of AC, AC Size, AC Independent Member, AC Expertise, AC Meeting Frequency)

1 The dyadic relationship is defined as inter-relationships or interactions between two people or groups within similar organization (Maconis and Gerber, 2011); in this case the interaction between CEO and BOD as described in Pearce and Zahra (1991) and Adams (2004).
The independent variable of the likelihood of financial statement fraud is measured dichotomously which treats all frauds equally.

Two control variables are included in the research model: Existence of Internal Audit Function and Auditor Size. Internal auditor plays an important role in the contemporary corporate governance mechanism [7], [9], [18]. The findings from several studies examining internal audit budgets indicate the association between internal audit function with certain corporate governance characteristics. The internal audit function is measured by existence of an internal audit function in a company. It is anticipated that internal audit function will be negatively related to likelihood of financial statement.

Recent studies reinforce the notion that companies with a strong corporate governance are more likely to select and retain high-quality external auditors. It is found that companies with larger audit committees, more audit committee meetings, and more independent boards are more likely to hire a professional service from reputable Big 4 audit firms [21].

C. Methodology and Analysis Techniques

Several methods are occupied in different phases of this study which is modified from a relevant research in the organizational performance context [22].

In the first phase of these examinations, the factor analysis was run on CEO and BOD Power Dimensions from pooled-data of 40 fraud companies from 2000-2011. The separate factor analysis was run each CEO and BOD Power Dimensions from pooled-data of 40 fraud companies from 2000-2011. These analyses are used to see if there are consistent factor results over time, to determine if the measures separated into factor consistent with the conceptual design, and to determine the extent of variance between the annual panel data results and the comprehensive results. The stability check of factor analysis on CEO and BOD power dimensions from panel data was run on each of cross section data of fraud and no-fraud companies from 2000-2011. A subsequent check on the cross section data on both fraud and no-fraud companies from 2000-2011 is employed to ascertain the underlying dimensionality of the CEO and BOD power constructs.

The univariate analysis is employed to summarize the demographic statistic and correlation matrix among observed variables. Accordingly, the multivariate analysis involving extracted CEO and BOD power constructs resulted from above procedures is further tested using cross-sectional logit regression to determine the influence of CEO-BOD power interactions on the likelihood of financial statement fraud.

IV. DISCUSSION AND ANALYSIS

A. Summary of Descriptive Statistics

In general, there is no significant difference found in each of individual characteristic of power between CEO and BOD. However the fraud companies relatively have greater number of CEO dominance; CEO duality; CEO stock owned; CEO related to the founder; CEO family member(s) sitting in the BOD; BOD size and Director(s) as the founder than the no-fraud companies. They also have fewer number of CEO family stock; CEO who is a financial/accounting expert; Director(s) stock; BOD meeting frequency; AC meeting frequency; than their counterparts.

B. Factor Analyses

As mentioned in the previous chapter, a series of factor analyses were employed to determine the underlying dimensions of CEO and BOD powers. It is also used to analyze the consistency of factor structure from the power measures in CEO and BOD between the pooled data results and cross-sectional data results.

The results from all stages of factor analyses show that there are a consistent factor loadings which producing each of three-factor outputs for both CEO and BOD power. For CEO power, factor 1 consists of CEO stock, CEO related to the founder, CEO family stock and CEO family member in the BOD; and is labeled as “CEO Ownership Power”. Factor 2 is comprised of the measures of CEO dominance and CEO functional background; and is labeled as “CEO Structural Power”. Factor 3 contains measures of CEO duality and is labeled as “CEO Duality Power”. The only exception was found in the cross-section data of no-fraud companies where the measure of CEO duality is loaded with CEO functional background in factor 2, and the measure of CEO dominance is loaded into factor 3 stands alone.

For BOD power, factor 1 consists of the combination of AC existence, AC size, AC independent, AC expertise, and AC meeting frequency measures; and is labeled as “BOD Expert Power”. Factor 2 contains measures of director(s) stock, BOD members as the founders or relatives to the founder of the company, and BOD meeting frequency; and is labeled as “BOD Ownership Power”. Factor 3 is comprised measures of independent directors and BOD size; and is labeled as “BOD Structural Power”.

These factor analyses results also highlight two important insights. Firstly, the use of principal component analysis in different types of data to determine the conceptualized dimensions of both CEO and BOD powers resulting three consistent factors on each CEO and BOD nature of powers. Secondly, each of seventeen indicators in characteristic of power in both CEO and BOD were loaded cleanly into one factor with no significant loading into subsequent factors. However, only the measure of CEO dominance in the factor analysis from the cross-section data of fraud companies and directors stock measure in each cross-section data of fraud and no-fraud companies have a primary factor loading below the 0.60 standard threshold [22].

C. Correlations and Regression Analyses

The correlation occurred significantly on the relationship between CEO Ownership power and BOD Ownership power; CEO Duality power and BOD Structural power; BOD Expert Power and BOD Structural Power, and: BOD Expert Power and BOD Ownership...
power. This correlations matrix shows that none of correlation between these proxies is considered robust to justify the collinearity concerns. An r of 0.50 and/or 0.80 as the threshold for collinearity concerns in logit [23] [24]. The highest correlation was 0.250 between BOD Expert Power and BOD Structural Power. This positive association indicates that when companies employ more experts in the BOD, the composition/structure of BOD is stronger with more independent directors in the BOD size thus reducing the likelihood of financial statement fraud.

The summary of multivariate result as described below presents a comparison logistic regression result from different models consisting of dyadic pairings between high and low CEO and BOD power relationships: (1) High CEO - High BOD powers; (2) High CEO - Low BOD powers; (3) Low CEO - High BOD powers and; (4) Low CEO - Low BOD powers [12], [22].

• Group 1: High CEO - High BOD powers
The logit model has a good fit with a pseudo Cox & Snell $R^2$ of 0.570 and supported with the model Chi-Square of 27.046 which is statistically significant at $p<0.01$ suggesting that the model coefficient are not equal to zero. The overall classification accuracy is 84.8%, comprised of 88.9% correct for fraud companies and 80.0% correct for no-fraud companies. The result also suggests that BOD expert power (Wald score = 7.455, significant at $p<0.01$) and BOD ownership power (Wald score = 5.219, significant at $p<0.05$) are significantly associated with the likelihood of fraud statistically. This outcome indicates that fraud (no-fraud) companies are significantly more likely to have a lower (higher) level of BOD expert power than no-fraud (fraud) companies. On the contrary, fraud (no-fraud) companies are relatively considered having a greater percentage of BOD ownership power. Therefore, it can be concluded that a more complex attributes for the AC effectiveness and less directors’ shareholdings have the effect in reducing the likelihood of financial statement fraud. This dyadic relationship is categorized as the participatory boards [12] whereby it also supports the typology given in the resource dependency theory [7], [16].

• Group 2: High CEO - Low BOD powers
Likewise the previous group, the logit model for the cluster when companies have high CEO and low BOD powers has a lower good fit with a Cox & Snell $R^2$ of 0.176. The model Chi-Square of 5.405 is also statistically insignificant at $p<0.01$. Similarly, the overall classification accuracy is 67.9%, comprised of 53.8% correct for fraud companies and 80.0% correct for no-fraud companies. Individually, none of all power dimensions is significantly associated with the likelihood of fraud statistically. This group is classified as the statutory boards [12]. This framework is also in line with the managerial hegemony perspective that BOD function in monitoring and supervising the management is limited with regards to more power attached to the CEO/TMT [9].

• Group 3: Low CEO - High BOD powers
The logit model has a good fit with a pseudo Cox & Snell $R^2$ of 0.238 and supported with the model Chi-Square of 20.089 which is statistically significant at $p<0.01$. The overall classification accuracy is 77.0%, comprised of 81.8% correct for fraud companies and 70.0% correct for no-fraud companies. Alike with the result for the group 1, the output from this cluster also suggests that BOD expert power is significantly associated with the likelihood of fraud, indicating that fraud (no-fraud) companies are significantly more likely to higher level of BOD expert power have the effect in reducing the likelihood of financial statement fraud (Wald score = 13.589, significant at p<0.01). This dyadic pairing is labeled as the proactive boards[12]. This extent of power is also described in the agency theory [2]. It highlights the intention of appointing directors to protect the needs shareholders from misusing powers by the CEO and TMT members.

• Group 4: Low CEO - Low BOD powers
The logit model for this group has a low good fit with a Cox & Snell $R^2$ of 0.194. The model Chi-Square of 14.480 is also statistically insignificant at p<0.01. Similarly, the overall classification accuracy is 76.1%, comprised of 53.8% correct for fraud companies and 90.2% correct for no-fraud companies. However, it is found that the BOD expert power is positively associated with the financial statement fraud. It suggests that a low level of BOD expert power influences the likelihood of financial statement fraud (Wald score = 3.226, significant at p<0.10). This group is categorized as the caretaker boards [19] and it is also viewed as the negative implication from the institutional theory since these two governance mechanisms fulfill their ritualistic roles for a ceremonial purpose [7].

In addition, we also estimate a logit model without classifying the extent of CEO and BOD powers into certain pairing. The overall model Chi-Square is 28.064 and also statistically significant at p<0.01. The logit model has a good fit with a Cox & Snell $R^2$ of 0.125. The overall classification accuracy is 72.3%, comprised of 63.4% correct for fraud companies and 81.2% correct for no-fraud companies. The BOD expert power is also found as the only predictor that has a positive and significant relationship with the likelihood of financial statement fraud (Wald = 19.397, significant at p<0.01). Thus it emphasizes the importance of the present of AC with their attributes in a company setting in minimizing the likelihood financial statement fraud.

V. CONCLUSION
The overall findings indicate when the BOD expert power increases (and to some extent when the BOD ownership power decreases), the likelihood of financial statement fraud decreases. This suggests that attributes related to the AC effectiveness i.e. presence, size, independent member, meeting frequency, and accounting/financial expert member are considered as the manifestation of the BOD expert power that play an important role in minimizing the likelihood of financial statement fraud through the monitoring and supervising mechanism [18]-[20].

The result of this study also supports the finding from [12] which highlighting the effectiveness of BOD function to the extent of determining the firm performance when
their power is higher than the CEO. Their finding is also consistent with the result of our study to the extent of emphasizing the need of the proactive/participatory boards in a company setting in mitigating the likelihood of financial statement fraud. Thus, this study supports the calls for maximizing the role of BOD in Indonesian companies consistently.

Finally, this study has several limitations. Firstly, the characteristics of CEO and BOD powers were extracted from secondary data and due to certain condition, the use of the cross-sectional data limits the strength of CEO and BOD power dimensions for this study, as well as to be utilized for future references. Secondly, this study focused on the investigation of fraud committed by the management and only frauds that are discovered and investigated by the ICMSA. This concern also highlights the robustness of the findings to be generalized for Indonesian or emerging market country setting, even though they are supported by some evidences from previous research conducted in U.S, Australia and some other developed countries. Lastly, this result cannot be generalized for non-listed companies. Thus, future studies could consider exploring corporate governance setting by expanding the longitudinal secondary data and/or promoting the triangulation methods through an involvement of various data collection and analysis methods.

REFERENCES


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