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Antecedent and consequence factors of CEO turnover in Indonesia

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Abstract

Purpose – The purpose of this paper is to examine the usefulness of accounting and market information when considering the issue of CEO turnovers in Indonesia.

Design/methodology/approach – The samples used in this research were corporations identified to have undergone (routinely or non-routinely) top management turnovers (which in this case were President Directors). This study used samples from all corporations that experienced CEO turnover during the period of 1998-2006 and determined the accounting variables that were thought to explain the turnovers. Corporations that did not experience CEO turnovers throughout the observed period were used as the control group. The final samples for both data sources were decided after considering data availability and confounding effects within the period of observation and were tested by using the LOGIT (separately) model, due to the fact that the dependent variables used were binary variables: 1 for turnover and 0 for no-turnover.

Findings – The overall results indicated that decreasing accounting and market performance within a company, in an average period of three years, encouraged CEO turnovers.

Research limitations/implications – This paper did not take into account the wider reasons for turnovers, such as CEOs hitting pension age (retirement), death, or forced or voluntary turnovers, all of which in previous research were areas that showed considerable influence. In future research, it would be important to consider those characteristics, along with the personalities of the CEOs who left the firms and those who were brought in.

Practical implications – Owners of firms have to be careful when making decisions to turnover CEOs because the action can generate significant reactions from the market. This market reaction, of course, is the factor that influences the prosperity of the company.

Originality/value – This paper demonstrates that when accounting and market performance is good, the probability that the presiding CEO will not be fired is higher, and vice versa.

Keywords Indonesia, Chief executive officers, Organizational performance, CEO turnover, Accounting performance, Market performance, Antecedent factors, Consequence factors

Paper type Research paper

1. Introduction

A corporation management system needs the formation of a core team responsible for setting goals and knowing how to achieve them. This makes the basic structure for determining company work patterns, direction, and the level of corporate performance to be achieved. For a corporation, having a strong management team is crucial for overcoming competition in an ever-unpredictable business world. Even in countries

Management Research Review
Vol. 35 No. 3/4, 2012
pp. 206-224

2040-8269
DOI 10.1108/01409171211210127

with highly advanced technologies where an executive position's level of influence may no longer hold much significance for the company due to the effectiveness of the management system, research shows that CEO turnover (enforced or voluntary) still has significant influence (either positive or negative) over corporate performance. Deciding who will replace a CEO (as successor) is a highly important issue regardless of the different reasons for turnover. For instance, an external replacement may be needed in the case of forced turnover as a result of worsening performance, with the expectations that the external successor will be able to introduce new and better strategies that result in better performance. In a voluntary turnover, due to the resignation of a CEO because of better career opportunities, the board of directors will generally choose an internal successor who understands the company's long-term strategies and will not create major changes within the company. This is because, in the case of voluntary turnover, companies generally are not facing problems of poor performance.

An Indonesian state corporation underwent a CEO turnover when the company's performance did not show significant growth, although the company, at the time, had adequate capacity to emerge as a strong player in the face of tight competition. The new CEO of the company (Indonesian National Bank), who was once one of the top executives at Bank of America and who had held the position of Minister of Finances of Indonesia, immediately rotated the 58 division heads as well as the chief officer, despite the fact that they had held their positions for many years. Following the change in leadership and the implementation of new strategies, the company immediately experienced a significant increase in performance. This example indicates that appointing a new CEO could be a necessary step for companies experiencing low growth, with the expectation that the turnover would improve the company's performance (Warta Ekonomi, 2009).

This study provides an illustration of the phenomenon of CEO turnover in Indonesia. There has been little research done on this subject due to the difficulties of acquiring data regarding turnovers. This research is very important as it could make significant contributions towards strategy-making decisions in corporate management systems. Prior to beginning this study, we reviewed 100 articles regarding the issue of CEO turnover. We also mapped the results of the previous research, as shown in Figure 1. This study provides information, based on empirical evidence, for companies (especially their owners) to determine the attitudes that they should take in handling the CEOs of their companies, based on accounting information and whether they have performed laudably or ineffectually. How CEOs who have performed well or CEOs with a barely satisfactory performance record (or even deficient performance) are appropriately treated could create a better corporate management system and give companies the opportunities to achieve the corporate strategy goals that were earlier determined to be part of their organizational blueprint. Agency Theory provides a strong argument for this phenomenon which is closely related to CEO turnover. Therefore, this study addresses whether accounting information and market information have an influence on making CEO turnover decisions in Indonesia.

This study found that when CEO turnover decisions were made, the companies had demonstrated poor performance which was indicated by *return on assets* (*ROA*), *earnings*, *sales*, *assets*, and *return on equity* (*ROE*). *Total sales* and *earnings* were significant on the level $p \leq 0.05$, *total asset* and *ROE* were significant on the level

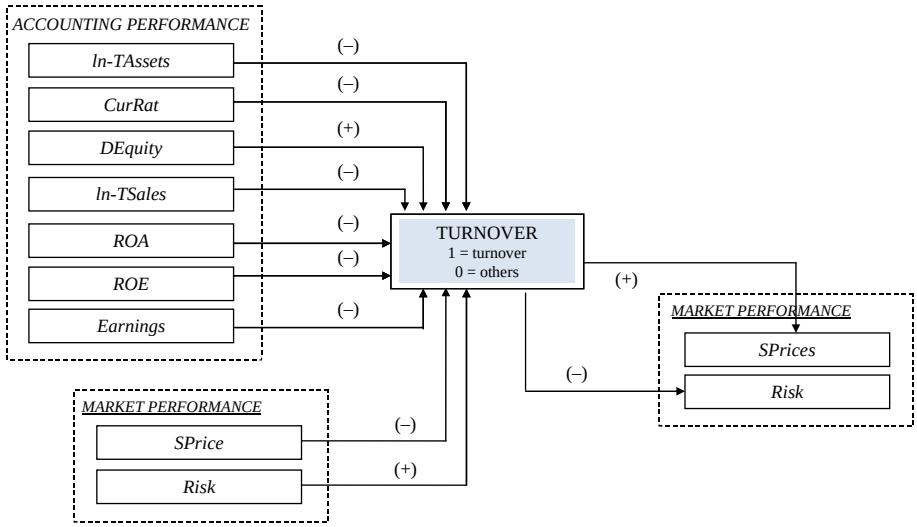

Figure 1.
Testing model

$p = 0.05$, and the variable *ROA* showed the strongest significance, which was as large as $p \leq 0.0000$. However, we were unable to find similar significance that the variables *current ratio* and *debt to equity ratio* have towards turnover. We found stock prices to be statistically negatively related (z-statistika -3.9989) and significant on the level $p < 0.000$. We also found that market risk which was statistically positively related (z-statistik 4.6189), significant towards CEO turnover of a firm. The overall results indicated that decreasing accounting and market performance in an average period of three years encouraged CEO turnover.

This paper is organized as follows: in Section 2 we describe the theoretical framework and develop the hypotheses. In Section 3 we describe the research method used in this study that consists of data and research samples, testing variables, and research variables. Results and analysis are offered in Section 4, followed by conclusions, implications, weaknesses, and suggestions.

2. Theoretical framework and development of hypotheses

Studies in the area of CEO turnover in the field of accounting and stock markets were originally conducted by Coughlan and Schmidt (1985), Warner *et al.* (1988) and Weisbach (1988). The issue of CEO turnovers can be explained using Agency Theory (Clayton *et al.*, 2003; Engel *et al.*, 2003; Kato and Long, 2006; Wang and Davidson, 2009), which describes the conflict of interest between the owners and agents, causing contracts to become necessary elements in order to ensure that both parties may profit.

2.1 Antecedents for CEO turnover

The antecedent factors that were found to greatly influence a board of directors' decision for CEO turnover include accounting performance, stocks performance, CEO personality, composition of the board of directors, mergers and acquisitions, organizational factors, and auditing. In the review by Kesner and Sebora (1994, p. 356), it was concluded that turnovers were often treated as dependent variables.

The consistent findings were also that the level of turnovers was higher in companies with low corporate performance. On the other hand, Finkelstein and Hambrick (1996) argued that the state of performance prior to the turnovers explained only a small percentage of the variants. They indicated that the relation between variables following a turnover was still weak. This conclusion was also found in many preceding studies (Miller, 1991; Cannella and Lubatkin, 1993; Zajac and Westphal, 1996; Finkelstein and Hambrick, 1996).

2.1.1 Accounting performance has an influence over CEO turnover. Murphy and Zimmerman (1993) researched CEO turnover in the field of accounting. Their study used Agency Theory as the theory underlying the variable relationship of their research, testing, and the documenting and behavior of various financial variables surrounding CEO turnover. While Murphy and Zimmerman's (1993) study found empirical evidence of financial variables (as an antecedent factor) that led to the change of CEOs, they did not separate out whether the CEOs left voluntarily or were forced to leave. Similarly, in this article, we do not distinguish between voluntary or non-voluntary turnovers.

Research by Smith *et al.* (2008) used variables which they found to be statistically significant in previous research. The variables offered in their paper included *total assets* – as a proxy for company size – which uses natural log to control the high non-linearity of data; *total debt*, the variable that showed access to the stock market which uses natural log to mitigate linearity issues; *book value of equity*, to represent financial investments by stockholders – this variable is also important in securing the financial strength of the company; and *debt to equity*, which is the general ratio used in the research as proxy for debt level. Significant results were found with p-value lower than 0.05 for all samples, including *total assets*, *total debt*, *book value of equity*, *current assets*, and *current liabilities* for companies that survived. Coefficient estimation for *current ratio* was negative and statistically significant, a result which, according to Smith *et al.*, corresponded with findings of studies done by Altman *et al.* (1977) and Hill *et al.* (1996).

These findings are consistent with those predicted in Agency Theory. Agency Theory is a theory which describes the interaction (often in the form of conflict) between the owner and management, including the issue of CEO turnover. In Agency Theory, introduced by Jensen and Meckling (1976), it is stated that among the interested parties-owners and CEOs-where the owners and managers of the companies are two different persons, there is asymmetric information. This further encourages the owners to form an agreement (contract) with the CEO by which the CEO will take action that will lead to improving the welfare of the owners. Financial performance, which is generally a benchmark of a managers' success in improving the welfare of the owners, is believed to be one of the essential considerations in CEO turnover. Assumptions that are made by Agency Theory are that accounting performance has an influence on CEO turnover.

Return on assets. This variable has been used in previous research in analyzing performance and turnover (Virany *et al.*, 1992; Harrison *et al.*, 1988; Shen, 2000). *ROA* was found to have a negative relation with external turnover. There was no specific explanation as to why these researchers used the *ROA* variable. Most likely, it was due to the necessity to select from a vast amount of accounting ratio variables that existed. However, the negative relation that was found in previous studies seemed to indicate that worsening corporate performance, as reflected in the decreasing return value of company assets, was what led to CEO turnover. The hypotheses related to the *ROA* is constructed below:

Ha$_1$. *ROA* has a negative relation with CEO turnover.

Earnings (EBIT). Engel *et al.* (2003) and Defond and Hung (2004) looked at earning variables in their research. The objective study conducted by Engel *et al.* (2003) examined the relationship between various measurements of performance and CEO turnover which were influenced by the various properties of accounting systems. Engel *et al.* specifically tested the cross-sectional variation of the importance of accounting information in CEO decisions and related these properties to the performance measurements. DeFond and Park (1999) stated that corporations in less-concentrated industries had a wider range of comparing corporations. Engel *et al.* (2003) discovered that CEO turnover happened more often in less-concentrated industries. This finding is consistent with the study done by DeFond and Park (1999) which found that directors were able to learn sooner about the capabilities of a CEO in these types of industries and were able to replace a CEO with a poor performance record sooner. DeFond and Park (1999) found this to occur only in sample corporations that experienced turnovers. Engel *et al.* (2003) and DeFond and Park (1999) found in their studies that there was a negative relation between earnings and turnovers. This finding strengthened the position of *earnings* as an antecedent factor of turnovers. The hypotheses related to the *earnings* is constructed below:

Ha$_2$. *Earnings* have a negative relation with CEO turnover.

Sales. The relation between the functionality of a turnover and the growth of sales (as a proxy of organizational performance) indicates a positive relation which is statistically significant. This was found in the study done by Beadles in which Beadles separated turnover into functionality and frequency. However, in our research, we used turnover as it was commonly used in previous research (Denis and Denis, 1995; Dedman and Lin, 2002; Defond and Hung, 2004). The hypothesis built on the explanation above is as follows:

Ha$_3$. *Sales* have a negative relation with CEO turnover.

Total assets, debt to equity, and current ratio. These variables have been used in previous research conducted by Smith *et al.* (2008). They found a significant result in that *p*-values were smaller than 0.05 for all samples, including *total assets* and *debt to equity*. The estimated coefficient for the *current ratio* was negative and statistically significant, a result which supported the study findings by Altman *et al.* (1977) and Hill *et al.* (1996) which indicated that firms with lower current ratios had a greater probability of bankruptcy. *Total assets* are generally used as a measure of a company's growth. Therefore, the CEO who can grow the company, will stay in the company. *Debt to equity* indicated the relative proportion of shareholders' equity and debt that is used to finance a company's assets. Meanwhile, *current ratio* pictures a company's ability to pay back its short-term liabilities with its short-term assets. Based on this explanation, the next hypotheses in our study are:

Ha$_4$. *Total assets* have a negative relation with CEO turnover.

Ha$_5$. *Debt to equity* has a positive relation with CEO turnover.

Ha_6. Current ratio has a negative relation with CEO turnover.

Return on equity. This ratio has been used in prior studies conducted by James and Soref (1981), Allen and Panian (1982), Lubatkin and Chung (1985), Robinson and Brief (1985) and Harrison *et al.* (1988). *ROE* is one of a company's profitability analysis tools used to evaluate the success of managers in creating income. Profitability can be measured through a company's ability to maintain a stable dividend policy while at the same time maintain the increase in shareholder wealth in the company. Therefore, allegedly, *ROE* performance will have an impact on CEO turnover. According to Puffer and Weintrop (1991), testing at each obtained ratio values was not statistically significant. Furthermore, Puffer and Weintrop proposed that these findings were not consistent with previous research on the relation between corporate performance and CEO turnover. This could be due to a lack of attention to the types of performance indicators used by researchers. Although the findings of previous studies showed insignificant results between the relation *ROE* and CEO turnover, our study still employed this variable. The hypothesis related to the *ROE* is constructed as below:

Ha_7. ROE has a negative relation with CEO turnover.

2.1.2 Stocks performance and risk. Previous empirical research results regarding stock performance have been much debated. Warner *et al.* (1988) found a significant relation between poor stock performance and the frequency of management turnover. On the other hand, the study did not find a significant relation between returns surpluses for stockholders and announcements of management turnover. Warner *et al.* (1988) and Jensen and Warner (1988) reported an abnormal return on the announcement of management turnover as a result of a combination of information contained in the announcement itself and the effect of other information. The effect of the information actually had a negative relation if the changes implied that corporate performance was very bad so that the market realized it in the form of negative returns. Beatty and Zajac (1987) also found a negative relation (although it was not significant) between returns and announcements of management changes, while Furtado and Rozeff (1987) and Weisbach (1988) reported that positive returns were significant to the announcements of management changes.

Stocks prices. The research conducted by Warner *et al.* (1988) was a pioneer study on CEO turnovers in the field of accounting. The study tested the relation between stock prices and corporate market returns after changes in top management. They found a negative (opposite) relation between the probabilities for management changes and the corporation's stock performance. Engel *et al.* (2003) tested how to give weight to market-based performance in the decisions leading to CEO turnovers – that were related to weighting properties as a measurement for managerial performance – using samples of forced CEO turnover (departures).

Beatty and Zajac (1987) provided arguments in their study that included a perspective that was different from similar research topics. Beatty and Zajac tested their hypothesis using a longitudinal/cross-sectional research model using 209 samples of major corporations. The result of the research showed that announcements of CEO turnovers were generally connected to a decrease in company value, as reflected by the perception of the stock market. The CEO (successor) then significantly influenced production and investment decisions within the company. The two types of research

conducted by Beatty and Zajac were related to changes in leadership and changes in performance. The first test was on the consequences of change in leadership in comparison to analysis of the impact of leadership. Several groups debated the issue using competing theories. For example, the "common-sense" statement that managerial changes will increase organizational performance was challenged by Grusky (1964) using the "vicious circle" argument which stated that managerial change would reduce performance. The ritual "scapegoating" theory (Gamson and Scotch, 1964), postulated that there was no significant relation between turnover and performance. Hence:

Ha_8. Stock prices have significant influence over CEO turnover.

Risk. Analysis done by Farrell and Whidbee (2003) showed that a board of directors tended to focus more on deviation from performance – and not on the actual performance of the CEO – in making the decision about turnover, especially when there had been a deal with low tolerance and spread among the analysts regarding the forecast of company *earnings* or when a large number of analysts were in control of the corporation. As well, the research also seemed to show that the board of directors would generally assign a CEO who would change policies and strategies (i.e. from outside of the company) when it was predicted that EPS would continue to fall in the next five years and when there was a greater uncertainty (which was more spread out) among the analysts regarding long-term corporate forecasts. Hence:

Ha_9. Market risk has significant influence over CEO turnover.

2.2 Impacts of CEO turnover

Testing of the consequences of CEO turnover indicated that turnover could have positive effects on performance if the CEO who had left the firm was somebody who did not generate good performance for the company (Helmich, 1974; Davidson *et al.*, 1993). However, some research also found negative effects of turnover (Grusky, 1964; Allen *et al.*, 1979; Carroll, 1984; Beatty and Zajac, 1987; Haveman, 1993), as it caused organizational disturbances. Other research saw turnover as having no consequence on performance when the turnover that occurred was only as a result of "scapegoating" (Gamson and Scotch, 1964; Boeker, 1992).

2.2.1 Market performance. Beatty and Zajac (1987) also tested the consequences of turnover and the information contained in the announcements of CEO turnovers. This was to prove that the announcements were fully and properly anticipated by market players, with expectations that there would be changes in stock prices with the announcements of the CEO turnovers. They then hypothesized that corporate stock prices were very closely related to the announcements of CEO turnovers. Hence:

Ha_{10}. There are significant changes in market performance before and after CEO turnover.

3. Research methodology

3.1 Research data and samples

The data used in this research included all the CEO turnovers in the period 1998-2006 as shown in Table I. The samples used in this research were firms that went through turnovers from 2001 to 2003 followed by no turnovers for four years in a row. This was

Description	Amount
Total investigated companies during 1998-2006	3,200
Total identified turnover during 1998-2006	264
Turnover without changes for four consecutive years during 2001-2003	97
Final sample for accounting data	140[a]
Final sample for market data	131[b]
Final sample for difference tests of market data	72

Notes: [a]81 turnover sample; 59 control sample; [b]77 turnover sample and 54 control sample; control sample is a company that during the years 1998-2006 was observed to have no changes in CEOs; the company is expected to have a relatively stable performance; accounting and market data that we used for analyzing were the average data over five year periods from 2001 to 2005

Table I.
Sample selection

because we assumed that the new CEOs would made significant changes in the corporations up to the year 2006. The justification of why we specified a term of four years after the change occurred was because we wanted to test the performance of the CEOs after they had led the company for a relatively long period. The data were gathered by directly investigating the financial reports of all companies that were registered with the Indonesian Stock Exchange within the nine observed years. Consistent with previous studies, the title of President Director of a firm was considered to be the same as the title CEO (Defond and Hung, 2004) for companies that did not explicitly use the term CEO. Data of CEO turnover were obtained by browsing through company data and comparing names of President Directors of firms within the observed year. In this way, we expected to gain information about the changes of a firm's CEO. In other words, in our research, the term CEO turnover referred to the changes of the names of CEOs in a certain firm and in a certain year.

The period of change observed in this study included the years 2001-2003. We then determined the companies' performance three years before and after the turnovers. Earlier research generally used data from a period of five or three years before and after the turnover. However, due to the fact that the number of samples would shrink even further if there were an extension in the period of observation, it was decided that only a period of three years prior to and after the turnover would be used. Throughout the period of 1998-2006 there were approximately 246 CEO turnovers in public firms in Indonesia. However, due to the sample selection criteria of the study (having financial data of three years prior to the turnover and market data of three years after the turnover, as well as not possessing confounding effects such as restructurings and stocks management), 81 firms were finally used as samples for turnovers with accounting data while 77 firms were usable for market data.

3.2 Variable testing

The testing of antecedent variables (Ha_1 and Ha_2) used LOGIT as in equation (1) which is often used in research that use binary variables as dependent variables (in this research, 1 = turnover and 0 = otherwise), as well as cross-sectional data. This research model is commonly used in accounting and management research. Zhou *et al.* (2009) also used the binary model when they used the dependent variables: IFRS adoption and not IFRS adoption. They then symbolized ADOPT (1, 0). Hoetker (2007) used the LOGIT model in his research regarding the issue of strategic management.

The statistical model used to test the first to the ninth hypothesis of this study is as follows:

$$TURNOVER(1,0) = \alpha_0 + \alpha_1 ln\text{-}TAssets_{it} + \alpha_2 CurRat_{it} + \alpha_3 DEquity_{it} + \alpha_4 ln\text{-}TSales_{it} + \alpha_5 ROA_{it} + \alpha_6 ROE_{it} + \alpha_7 Earnings_{it} + \alpha_8 ln\text{-}SPrice_{it} + \alpha_9 Risk_{it} + \varepsilon_{it}$$

Ha_{10} is for the market performance and is tested using paired t-test samples since the hypothesis was an attempt to test the average difference of the two mean from the same sample. The reason why this study only uses market performance as a factor in the consequences of CEO turnover is due to accounting performance that generally does not rapidly change in an organization, compared with market performance. Because the impact of changes is difficult to catch by using financial variables, we decided to only use the variable in the testing market consequences of CEO turnover.

3.2.1 Additional tests. We will also tested the turnovers that occurred routinely and non-routinely in order to provide additional results which could be used to explain the issue of turnovers in Indonesia. Our research used the terms change of routine and non-routine. Change of routine is an activity that has been planned (scheduled) with and follows a structured process, while non-routine turnover is its opposite (Setiawan, 2008). Meanwhile, Kang and Shivdasani (1996) suggested that, in identifying the process of replacement, if the outgoing CEO is a member of the board of commissioners, the process of replacement is considered routine and vice versa. The additional tests were expected to provide more explanation for the results of the main test. The complete research model to be used is shown in Figure 2.

3.3 Research variables

3.3.1 Accounting performance and market performance that explains turnovers (CEO turnovers as a dependent variable). The variables used in this research were those that had already been used in earlier research (Smith *et al.*, 2008) which were found to be statistically significant. Thus, the variables used in this study are:

- *ROA* is a performance measurement obtained by comparing *earnings* and *total assets*. The better the *ROA*, the less likely that a turnover will occur.
- *Earnings*. This measurement was used by Engel *et al.* (2003) and Defond and Hung (2004) and showed a negative relationship between earnings and turnovers.

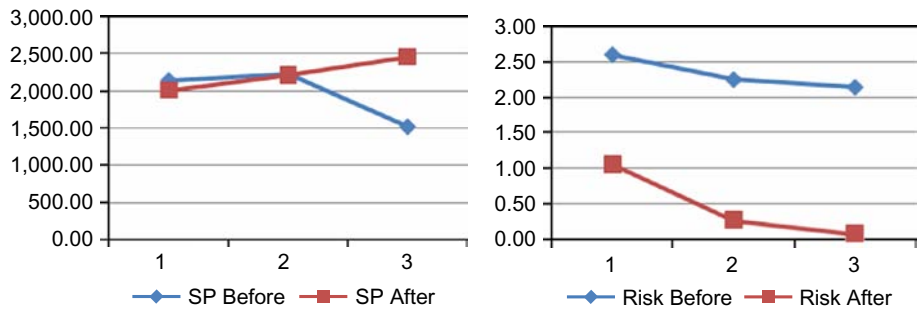

Figure 2.
Share price and risk, before and after turnover

This measurement has become very common and is used freely in estimating management performance. We used net income to represent *earnings*.

- *Total sales* (*ln-Tsales*) is the measuring bar for the operational performance of corporate management – which was naturally logged to control non-linearity of data. *ln-Tsales* was expected to have a negative relation with turnover, which means that a high *ln-Tsales* will discourage CEO turnover.
- *Total assets* (*ln-TAsset*) is a proxy for firm size, using natural log to control the high non-linearity of data. This variable is assumed to have a negative relation with turnover because an increase in *total assets* reflects a positive growth in firms.
- *Debt to equity* (*DEquity*) is a general ratio used in studies as proxy for debt level. Zmijewski (1984) found that – in Smith *et al.* (2008) – if the total ratio of *debt-to-total-equity* is higher, the increase in a probability of a turnover will be more significant.
- *Current ratio* (*CurRat*) is a formulation of *current assets*/*current liabilities* and presented as proxy for short-term financial lack. In the research on cases of bankruptcy in Smith *et al.* (2008), this variable showed a negative relation towards the probability of a turnover (Flagg and Giroux, 1991; Zmijewski, 1984; Altman *et al.*, 1977).
- *ROE* is an alternative assessment of corporate success in *ROE* of company. The *ROE* score was obtained from the *earnings* equation divided by total equity. This variable was assumed to have a negative relation with turnover, so failure in restoring capital would be added to the company's reason for a turnover.
- *Stocks price* (*ln-SPrice*). This became the instrument for measuring a manager's success in increasing the wealth of company owners. Shrinking stock prices was expected to raise the probability for a turnover.
- *Risk.* Farrell and Whiedbee tested CEO turnover and the decisions of CEO successors using different perspectives including real and forecasting of performance. *Risk* was similar to the one used in the study by Puffer and Weintrop (1991). Meanwhile, Bushman *et al.* (2008) used the volatility of returns as proxy of risk. However, in this research, we used market beta as proxy of risk. If the risk of a firm is higher, the probability of CEO turnover in that firm is greater.

3.3.2 Market variables that followed CEO turnover. Our research only tested market variables as factors that followed the issue of turnover. For market variables, while previous studies used daily stock prices due to utilizing the dates of turnover announcements (Setiawan, 2008; Beatty and Zajac, 1987), our research used stock prices and annual risks, since our observation was on the years of turnover. We expected market factors to be more sensitive towards the issue of turnover than accounting factor, due to accounting performance that required a relatively longer period of time to respond to an occurring phenomenon.

4. Results and analysis

4.1 Test of classic assumption

Before doing a regression analysis for both accounting data and market data, we did a classic test on both data sources to be used. For the accounting data, we did not find

the probability score for heteroscedasticity test using test white of 0.996. The probability score which was greater than 0.05 indicated that the date that was used had fulfilled the assumption of homoscedasticity. On the multi-colinearity test, we found the R^2 score to be $0.31 < 0.50$ (from variable model test) signified that no multi-colinearity existed within the data (among variables). Therefore, regarding the accounting data that had been gathered, we concluded that the data was good and consistent with the use of the next statistic tools. Then, on the test of the classic assumptions for market data, we also found that there were no multi-colinearities on the data to be used, with R^2 score of $-2.32 < 0.89$ (R^2 for the whole variable model). However, it could not fulfill the assumption of homoscedasticity due to the probability being <0.05. This was presumably due to the number of independent variables amounting to only two in this equation and these variables were of differing characteristics (ln and ratio). However, we were certain that the market data we used had sufficiently fulfilled the requirements and thus were eligible to be tested.

4.2 Results from LOGIT regression on accounting performance

Our study tested accounting data and market data as factors to be considered in the issue of CEO turnovers in Indonesia. Firms that did not have CEO turnovers for four years in a row were the target of our analysis. The control group consisted of companies which for the five observed years did not have any CEO turnovers.

Overall, LOGIT test results for the accounting data that was used in this study (such as *total asset*, *current ratio*, *debt to equity*, *total sales*, *ROA*, *ROE*, and *earnings*) showed significant influence over the decision for turnovers on the level of $p < 0.000$. On their own, five out of the seven variables showed significance on the level of $p \leq 0.05$. This score was supported by the omnibus test from the χ^2 testing which presented the influences of the models in accounting antecedents and market antecedents which were of strong significance, each ($p = 0.000$). The χ^2 omnibus test of model coefficients score was less than $p = 0.05$, which meant that the null hypothesis of this research which stated that the independent variables had no influence over its dependents must be rejected. Next, Nagelkerke's R^2 – which was a modified cox coefficient – and snell R^2 were used in order to determine the variation of the relations that each independent variables had with their dependent variables. Influences of free variables were shown altogether with the Nagelkerke's R^2 score of 0.67 on accounting variables and 0.98 on market variables, while Nagelkerke's R^2 score was partially shown using Wald and significance. Exclusively for market variables, the Wald scores were not able to be described due to the very strong relation.

Table II explains the characteristics and results of tests that were done along with the samples that were used. Panel A in Table II tested on the influence of CEO turnovers of 140 sample firms which were made up of 59 firms with no turnovers and 81 firms with turnovers, showing LOGIT testing on accounting data. The analysis, using accounting data, showed that out of the seven accounting variables that were analyzed in this study, five variables showed significance towards turnover. The hypothesis testing concluded that Ha_1-Ha_4, and Ha_7 of this study are supported. These findings provide empirical evidence that when CEO turnover decisions are made, the company at that time has decreased firm value, especially when it is associated with *ROA*, *earnings*, *sales*, *assets*, and *ROE*. *Total sales* and *earnings* were significant on the level $p \leq 0.05$, *Total asset* and *ROE* were significant on the level

	Variables	*z*-statistic	Wald	Sig.
Panel A, $n = 140$	lnTAssets	−2.2899	5.244	0.02
0 = 59	CurRatio	0.0226	0.000	0.98
1 = 81	D/Equity	−0.1706	0.029	0.86
Testing for accounting data	lnTSales	−1.9191	3.683	0.05
	ROA	−4.4301	19.626	0.00
	ROE	−2.1563	4.650	0.03
	Earnings	−1.9137	3.662	0.05
	Variables	*z*-statistic		Sig. (two-tailed)
Panel B, $n = 131$	ln-Sprices	−3.9989		0.0001
0 = 54	Risk	4.6189		0.0000
1 = 77				
Testing for market data				
	Variables		Mean	Sig. (two-tailed)
Panel C, $n = 72$	Pair 1 SPBefore-SPAfter			0.05
Testing for paired	Pair 2 RiskBefore-RiskAfter			
t-test sample				0.00
market data				
	Mean			
	SPBefore		1,134.0278	
	SPAfter		1,747.9865	
	RiskBefore		2.3800	
	RiskAfter		0.4974	

Table II.
Testing result each hypothesis

$p = 0.05$, and the variable *ROA* showed the strongest significance, which was as large as $p \leq 0.0000$. However, we were unable to find similar significance that the variables *current ratio* and *debt to equity ratio* had towards turnover.

The findings of this study supported our assumption that accounting performance has significant influence over CEO turnover. Five accounting variables were of significant influence over turnover, which was consistent with the study done by Smith *et al.* (2008). With this, we claim that the results of this study is in line with the expectations of previous studies by Engel *et al.* (2003), which was that it was necessary to consider accounting information when making important decisions in a company. The variable *ROA* that showed strong, significant relation with turnover was also consistent with the findings of Shen (2000) who tested on *ROA* and found its significance towards turnover. This indicated that accounting performance was a factor that was considered by firms when deciding to turnover a CEO.

4.3 Results of LOGIT regression on market performance

Panel B showed the results of market data testing. Using up to 131 samples consisting of 77 sample firms with turnovers and 54 control firms without turnovers, our analysis found very strong support towards the influence of variable stock price and *risk*. We found stock prices to be statistically negatively related (z-statistika −3.9989) and significant on the level $p < 0.000$. The same thing was found for the variable of *risk* which was statistically positively related (z-statistik 4.6189), significant towards CEO turnover of a firm. The results indicated that decreasing stock prices for an average period of three years would encourage CEO turnover. Stock prices which were found to be the deciding factor in turnover decisions were consistent with the results of previous

research done by Engel *et al.* (2003), Beatty and Zajac (1987), Defond and Hung (2004), as well as Warner *et al.* (1988). We conclude that these findings support Ha_8 of this study.

Similar to stock prices, increasing company risks were also positively related to the probability of a turnover. In other words, firms with high risks that would be identified as firms with poor performance had to undergo rehabilitation, which meant that the person who was considered to carry the most responsibility for worsening the firm's market performance had to be replaced. This finding is consistent with the results of the study by Farrell and Whidbee (2003) which found a positive relation using EPS deviation from analysts' forecasts. This finding is also in support of Ha_9 which was that market performance had become an influential variable in deciding CEO turnover in Indonesia.

Overall, the results of testing of antecedents and consequence factors of CEO turnover in our study found that when companies' accounting and market performance worsened, this prompted a change of CEOs in Indonesia. These findings are consistent with the results of a study using data from the USA, Europe, and Asia (as in China) found in previous studies.

4.4 Results of difference test on market performance

Using market data, we performed a difference test on market price and market risk three years prior and after the year of CEO turnover using paired sample *t*-test. Table II, panel C shows the results of the difference test on 72 firms, where we found a significant difference in stock prices and market risk for the company before and after CEO turnovers in Indonesia. The mean for stock prices before turnover was 1134.028 (*SPBefore*), while the mean after the turnover increased up to 1747.986 (*SPAfter*). From the results of the paired-sample test, there was a statistically significant difference on the level 0.05 on stock prices. This result supports the study by Johnson *et al.* (1985) and Warner *et al.* (1988) that found and reported positive response in stock prices after a turnover, although the two studies were not able to show the significance of the stock price reaction. These findings support Ha_{10} of this study.

Next, market risk was found to be significant at the level of 0.0001 with $t = 31.471$. The mean for market risk before turnover was 2.380 (*RiskBefore*) and was significantly lowered to 0.497 (*RiskAfter*) after turnover. The test results of these two market variables supported our Ha_3 which stated that there would a difference in market performance prior to and after a turnover. The results also indicated that CEO turnovers were generally positively appreciated by market players, increasing a firm's stock price performance and lowering market risk. In other words, CEO turnovers were generally understood by market players to be a sign of the firm's effort to rehabilitate its future corporate performance and increase the prosperity of its owners. The results also simultaneously proved that firms with CEO turnovers, which generally were companies with decreasing stock performance for three years prior to the turnover, were able to improve the firms' market performance for at least three years after the turnover. Figure 2 shows the stock price changes and risk changes that took place after a CEO turnover.

In general, the results of tests based on market data in our study was that there was a positive and significant reaction towards turnovers, which is consistent with the results of previous research done by Reinganum (1985), Borstadt (1985), Furtado and Rozeff (1987) and Dedman and Lin (2002), all of whom detected market reactions towards turnovers although the reactions were not significant. Denis and Denis (1995)

found positive and significant effects of a CEO turnover when all top executives (CEO and chairman) left the firm. Furtado and Rozeff (1987), who tested the influences of CEO turnover announcement on stockholders' prosperity, found the same results as a study done in the UK by Dahya *et al.* (1998) which found that the market reacted positively towards non-routine turnovers of 67 top management on a report from Extel between 1989 and 1992.

4.5 Additional testing: difference test on market performance as categorized into routine and non-routine

We additionally performed a test on corporations that routinely and non-routinely had turnovers. This test was done to provide more detailed information regarding the issue of turnovers. From the results of the difference test, we were able to find significant difference in stock prices of routine and non-routine turnovers, prior to and after the turnovers. Routine turnovers showed lower stock prices both before (*SPBeforeR*) and after turnovers (*SPAfterR),* each with the means of 630.83 for the former and 747.85 for the latter. There were increases in stock prices, both in routine and non-routine turnovers. Regarding the routine turnovers, there was an increase of the mean value of 117.03, with value before and after turnovers 630.83 (*SPBeforeR*) and 747.86 (*SPAfterR*), respectively. But this increase was lower when compared with the value of mean of the stock prices increase in non-routine turnovers of 2,156.61, with value before and after turnover 1,829.52 (*SPBeforeN*) and 3,986.13 (*SPAfterN*), respectively. This indicated that stocks prices of firms with non-routine turnovers were more positively appreciated by the market. In line with the opinions of previous researchers, we concluded that non-routine turnovers gave stronger positive signals when compared with routine turnovers.

We defined the process of turnovers very carefully. A non-routine turnover is a turnover whereas the old CEO no longer holds any position (on the commissary board or as a member of the top management team) in a firm and or in firms with the same owners. Setiawan (2008) used information from Kang and Shivdasani (1996) to identify the process of routine and non-routine turnovers. If the CEO who left his position shifted to a position as a member of the commissary board, then the turnover process would be considered routine, and vice versa. Besides the scenario of the CEO becoming a member of the commissary board, this research also considered the possibilities of CEO turnovers in companies with same ownership and also the possibility of the CEO becoming a team member in the top management. Next, we found a significant difference ($p = 0.04$) between stock prices before a routine turnover and stock prices before a non-routine turnover. The situation is similar to the difference between stock prices after a routine turnover and stock prices after a non-routine turnover (significant on the level 0.05).

Our next analysis was done on the variable of risk in the processes of routine and non-routine turnovers, prior to and after the turnovers. The mean of risk before routine turnovers (*RiskBforeR*) was 2.409, while the mean of risk before non-routine turnovers, which was 2.306, was lower. The reduction in the mean score of risk occurred after routine and non-routine turnovers, the former becoming 0.456 and the latter 0.434. We then once again drew the conclusion that non-routine turnovers were perceived positively when compared with routine turnovers. This is reflected in the decreasing firm risk in non-routine turnovers, although not significantly (Table III).

5. Conclusions, implications, weaknesses, and suggestions

5.1 Conclusions

This study found that accounting information and market information, as well as market reaction, contributed towards CEO turnovers in Indonesia. The antecedent factors and the consequence of turnovers were analyzed and the analysis was the main contribution of our research. All the samples used were firms with CEO turnovers within a certain year. We then proceeded with the investigation of accounting data and market data. From the seven accounting variables that were used as antecedent for turnovers, five variables were found to be consistent and non-biased, including *lnTAsset*, *lnSales*, *ROA*, *ROE,* and *earnings*. The findings also explained the usefulness of accounting information and the accounting community's expectation that the information they provided would be considered by firms in making important decisions. Besides accounting information, market information was also perceived to become a factor for consideration (as antecedent) and (as a consequence) towards turnovers. The relatively increasing stock prices and the decreasing firm risk after a turnover were significant on the level < 0.001.

This study also found that additional testing of non-routine and routine turnovers showed that there was no significant difference in a company's market risk between these two types of turnovers (routine and non-routine). These findings were very different, however, when considering stock prices. In the period before the turnover occurred, the difference between stock prices of routine and non-routine turnovers were at level 0.04. In the period after the turnover occurred, they were at level 0.05. For this type of routine turnover, the share price went from an average of 630-747, while for non-routine turnover the share price changed dramatically from 1,829 to 3,086. These findings demonstrate that the market in Indonesia is quite knowledgeable about distinguishing forms of turnovers. The market responded positively toward non-routine turnovers with the expectation that the changes would result in better performance compared with only routine changes.

The result of this research shows that a company's worsening accounting and market performance would indicate signs of incipient turnovers. The owners of the firm should strongly consider accounting performance when making important corporate decisions, which includes replacing a CEO. Accounting performance which is found to be an antecedent factor of CEO turnover in Indonesia (such as *total assets*, *sales*, *ROA*, *ROE*, and *earnings*), has shown that CEOs who fail to enhance shareholder value have a greater chance of being replaced, and vice versa.

	Pairs	Mean	*t*	Sig.
Paired *t*-test sample, $n = 28$	1. *SPBeforeR*	630.83	− 2.160	0.040
	SPBeforeN	1,829.52		
	2. *SPAfterR*	747.86	− 2.029	0.052
	SPAfterN	3,086.13		
	3. *RiskBeforeR*	2.4093	0.925	0.363
	RiskBeforeN	2.3064		
	4. *RiskAfterR*	0.4564	0.172	0.865
	RiskAfterN	0.4336		

Table III.
Result of additional testing

5.2 Implications

CEO turnover is not an easy step to take for an organization because changing the CEO can mean changing the model of the organization, resulting in a "sick" organization (Baron *et al.*, 2001). The significance of accounting information depends very much on the quality of the contents of the information itself. On the other hand, the owners of firms have to be very careful when making decisions to turn over CEOs because the action can generate significant reactions from the market. This market reaction can in the end, of course, be the factor that influences the owner's prosperity.

5.3 Weaknesess

Although we have been careful in executing this research, for example in sample collection and in data consideration, we note that there might still be aspects of this research that we could improve on in future research. Some weaknesses of this research are that it has not taken into account wider reasons for turnovers, such as CEOs hitting pension age (retirement), death, or forced or voluntary turnovers, all of which in previous research were areas that showed considerable influence. In future research, it would be important to consider those factors, along with the personalities of the CEOs who left the firm and those who were brought in.

5.4 Suggestion

Market risks that do not show significant differences in the types of routine and non-routine changes should be further investigated. It is possible that other factors can explain this, such as the new CEO's origin and so forth. It would also be important when doing further research, particularly in Indonesia, to consider using other types of changes such as voluntary and non-voluntary. Although it is not easy to obtain information from companies about the reasons for turnovers, researchers can use professional judgment to determine the reasons.

It is important to identify types of turnovers in order to explain the existence of another theory, one of which is the labor market theory of executive. Types of industry and government intervention in the company (like BUMN and non-BUMN in the case of Indonesia), also need further consideration to give a better picture and detail of empirical findings in the area of CEO turnovers.

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