ENVIRONMENTAL DYNAMIC, BUSINESS STRATEGY, AND FINANCIAL PERFORMANCE

An Empirical Study of Indonesian Property and Real Estate Industry

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Abstract

Firm's strategic orientation involves synchronizing environmental dynamics, corporate strategy and capital structure in order to achieve firm performance targets. The co-alignment model used successfully in the hospitality industry might be used in a wider context as a framework in explaining these relationships simultaneously. Using the data of public firms in Indonesia during the period of 1996-2010, we found that co-alignment model can be implemented in property and real estate industry as well as in hospitality industry.

Keywords: macroeconomic conditions, corporate strategy, performance, property and real estate, investment

In the strategic management perspective, corporate strategy formulation and its implementation is considered as the key explanatory factor of performance superiority of the firm (Sadler, 2003; Hitt, Ireland and Hoskisson, 2007; Thompson et al., 2011). The success of the strategy is determined by various environmental factors and the firm's capital structure (Chathoth and Olsen, 2007). Various studies have attempted modeling the influence of environmental factors, corporate strategy and capital structure on firm performance; either individually or simultaneously, such as Horvathova (2010), Lopez-Gamero, Molina and Claver-Cortes (2010), Sueyoshi and Goto (2010) and Rakshit and Chakrabarti (2012).

Strategic management theory states that there is a relationship between strategic decisions and the implementation of corporate strategy on firm financial performance (Sadler, 2003; Hitt et al., 2007; Thompson et al., 2011). The impact of corporate strategy firms tends to be felt in the medium and long term, but instead the firm's financial performance is often measured in the short term interval. Difference in time dimension and the impact of shorter measurement period raised the complexity in measuring the success of the firm's strategy as re-

flected in firm performance. In theory, corporate strategy is a response to the dynamics of the environment and will affect the determination of the firm's capital structure, which in turn have an impact on strategy implementation and the operation itself.

The relationship between environment, strategy, capital structure and corporate performance has also been widely studied and explained in various theories in the field of corporate finance. However, these studies (such as Horvathova, 2010; Lopez-Gamero et al., 2010; Sueyoshi and Goto, 2010; Rakshit and Chakrabarti, 2012) have not inserted the interdependent relationship between the four construct of variables. This leads to a variety of inconclusive research results. This can be attributable to two things. *First*, the model was constructed based on the assumption of simultaneous effects while ignoring the issue of a chain effect between constructs. *Second*, their measurements of variables for connecting strategic management and corporate finance theories were not appropriate). Barton and Gordon (1987) tried to combine corporate finance and strategic management concepts to test models of business management. Even this model did not holistically account for the impact of environmental risk, corporate strategy and capital structure to performance.

In strategic management theory, a model which explains the gradual relationship between the corporate environment, strategy, capital structure, and performance is known as the co-alignment model (Farjoun, 2002; Avison, 2004; Chathoth and Olsen, 2007; Mubashar, Raheman and Zulfiqar, 2012). Most recently, Chathoth and Olsen (2007) successfully used this model in the hospitality industry. In order to follow suit, with some modifications, this study aim to test the validity of the co-alignment model in property and real estate industry in Indonesia.

LITERATURE REVIEW

Chathoth and Olsen (2007) defined co-alignment model as "if the firm is able to identify the opportunities that exist in the forces driving change, invest in competitive methods that take advantage of these opportunities, and allocate resources to those that create the greatest value, the financial results desired by owners and investors have a much better chance of being achieved". Furthermore, they explained that in the co-alignment model, if the firm is able to identify existing opportunities, invest in competitive methods to benefit from these opportunities, and allocate resources properly to get the greatest value, it will increase the firm's opportunity to achieve its financial objectives. The implication of co-alignment model is the adoption of the SWOT model in assessing the strengths and weaknesses of the firm in order to face the opportunities and constraints that exist (Chang, 2004).

Conceptually, Chathoth (2002) explained that the co-alignment model defined a unidirectional relationship between environment, strategy, structure, and corporate performance. The results of measurement and evaluation by firm over the firm's environmental conditions, both internal and external, will affect the company's attitude in defining the firm's corporate strategy. The firm's strategy will affect how firms finance investments or how

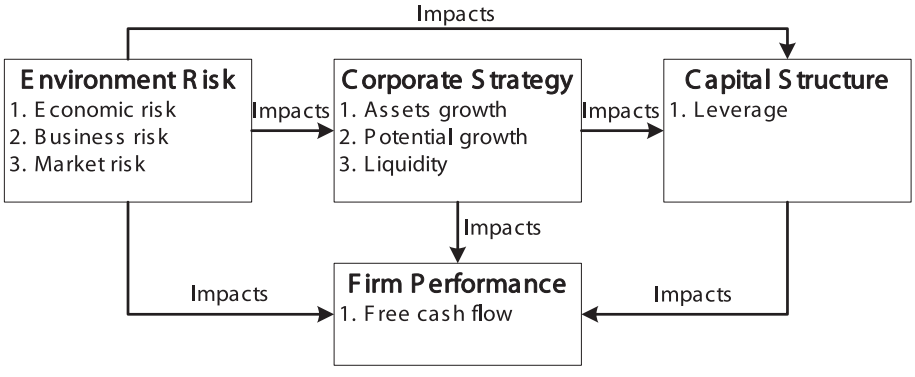

Figure 1. Conceptual framework of co-alignment model

business opportunity will be taken, whether by optimizing internal funds first (i.e. retained earnings) and then use external funding (i.e. debt and equity), or maintaining an ideal portion between debt and equity. Capital structure should directly affect the profitability and solvency of firms, as well as the firm's corporate strategy and firm attitude in face of the dynamics of the corporate environment. For example, the firm's decision to enter the property and real estate industry will certainly provide different financial performance implications compared to the performance if the firm entered the agricultural sector instead. A variety of co-alignment model can be seen in, Farjoun (2002), Chang (2004), Madapusi (2007), and Ogollah, Bolo and Ogutu (2011).

Conceptual Framework

The relationship between the impact of environment risk, corporate strategy and capital structure on corporate performance, can be described in Figure 1.

Environment Risk

Risk management is considered particularly vital for firm's survival (Chathoth, 2002; Naidoo, 2010; Kini and Williams, 2012). Environment risk defined as the impact of external environment to the firm in perspective of cash flow, value and profitability (Chathoth and Olsen, 2007). Variability of cash flows indicate the firm risk exposure associated economic risk (Ross, Westerfield and Jaffe, 2003), business risk (Lancaster, Stevens and Jennings, 2011; Dickinson, 2012), and market risk (Bolton, Chen and Wang, 2013). The three dimensions of environmental risk are used to capture the uncertainty and volatility of environmental factors that affects corporate performance. Economic risk is used to capture the uncertainty of the macroeconomic environment that may affect the industry and sales firm, such as income per capita, economic growth, unemployment, inflation and market interest rates. Business risk defines as the risk posed by the possibility of deficiency in operational control procedures (Chathoth, 2002). Moreover, business risk is the risk that creates the deficiency in one or more of the firm's operational factors or failure of internal control that might result in an unexpected loss. These conditions will usually result in cash flow's deviation compared to market's cash flow as a result of inefficiency of management to ensure adequate returns to the

firm (Chathoth, 2002). Market risk is defined as the risk posed by the variability of stock prices in the market. Although this risk does not influence firm performance directly, this risk becomes crucial in the perspective of investors. The high variability in stock prices increases the liquidity cost for investors.

Corporate Strategy

Based on the hierarchy, strategies can be divided into three levels, namely corporate strategy, business strategy and functional strategy. In the theoretical context of corporate finance, business and functional strategies have been reflected in the formulation and implementation of corporate strategies. Positioning strategy at the level of business strategy has been included in the concept of portfolio diversification strategy and liquidity of firm at the level of corporate strategy. In addition, in the context of strategic management, when top management formulates corporate strategy, they certainly have considered its impact on the business and functional strategies. In fact, in formulating business and functional strategies, managers should refer to the firm's corporate strategy and objectives. Therefore, definition of strategy in this study will be limited to the scope of corporate strategy.

Following Kim, Mauer and Sherman (1998) and Chathoth and Olsen (2005), this study also use two dimensions of corporate strategy, namely growth and liquidity. The firm's strategy can be captured with two variables, namely growth-related strategy (Zook and Rogers, 2001) and liquidity-related strategy (Kim et al., 1998; Lancaster et al., 2011). Growth strategy is top management's decision to expand the business horizon by choosing which business opportunity to pursuit (Sadler, 2003; Hitt et al., 2007). There are various alternative strategies to achieve growth, the expansion of existing businesses, diversifying into new businesses, horizontal and vertical integration, acquisitions, mergers, and the collaborative venture (David, 2013). Conversely, the rapid growth often brings extra risks. Therefore, firm should be able to control its growth rate and adjust the internal conditions (Hirth and Uhrig-Homburg, 2010; Munoz, 2013) through a liquidity strategy.

Capital Structure

Chathoth and Olsen (2007) defined capital structure as implementation of RBV (resource based view) theory in a strategy of how firms finance investments using debt and equity instruments. One major goal of financial managers is to manage the firm's financing structure of both components to minimize the cost of capital in order to maximize the value of firm, in which optimal capital structure is one way to minimize the cost of capital (Ross et al., 2003).

Each component has unique characteristics. Debt is a function of short-term borrowings and long-term loans that must be repaid after a certain period (Chathoth, 2002). The obligation of debtor includes repayment of principal and interest components. The lender (i.e. creditors) will obtain prioritized repayment guarantee compared to shareholders in case of liquidation. The amount of loan interest will be a permanent burden for the firm. In contrast, equity instrument typically refers to common stock holders which have

the right for the remaining residual assets after liquidation. Shareholders (i.e. investors) have a right in determining the direction of firm policy. Capital cost that incurred on the issuance of shares by the firm is the expected rate of return for investors.

Firm Performance

Achieving the main objectives of this study highly depends on the operational definition of firm performance measures and testing how much variance of the firm performance can be explained using the environment risk, corporate strategy, and firm capital structure. Firm performance can be measured in profitability and market performance. Profitability was measured by the return on capital invested in the business or yield of the revenue generated during a specific time period. While the market performance was measured using market indicators such as stock prices and dividend yield ratio (Chathoth, 2002).

Jang and Park (2011) used ratio of net income to net sales as a measure of performance to examine the relationship between firm size and profitability, while John, Balakrishnan and Fiet (2000) used market value added (MVA), calculated by subtracting total firm value with total capital invested, to examine the relationship between corporate strategy and firm performance. Caloghirou et al. (2004) used another accounting ratio to measure a firm's financial performance, which is return on assets (ROA). Chathoth and Olsen (2007) stated that the measure of financial performance includes a variety of measures that satisfies bondholder and stockholder, both in cash flow or accounting measures, such as ROE, ROA, and net cash flow per share (Ross et al., 2003; and Chathoth, 2002).

Hypotheses and Model Design

In order to test the null hypothesis that co-alignment model can be used to explained patterns of interaction between environment risk, corporate strategy, capital structure and firm performance, the following incremental models was used:

Interaction between environment risk and corporate strategy

Potential growth = $b_0 - b_1 \times$economic risk $- b_2 \times$business risk $+ b_3 \times$market risk $+ b_4 \times$firm size (1)

Interaction between environment risk, corporate strategy and capital structure

Leverage = $b_0 - b_1 \times$business risk $+ b_2 \times$firm size $- b_3 \times$liquidity (2)

Interaction between environment risk, corporate strategy and firm performance

Firm performance = $b_0 - b_1 \times$business risk $- b_2 \times$market risk $+ b_3 \times$liquidity $+ b_4 \times$firm size (3)

Interaction between corporate strategies

Liquidity = $b_0 + b_1 \times$potential growth $- b_2 \times$firm size (4)

Interaction between corporate strategy and capital structure

Leverage = $b_0 + b_1 \times$potential growth $- b_2 \times$liquidity $+ b_3 \times$firm size (5)

Interaction between corporate strategy and firm performance

Firm performance = $b_0 - b_1 \times$potential growth $+ b_2 \times$firm size (6)

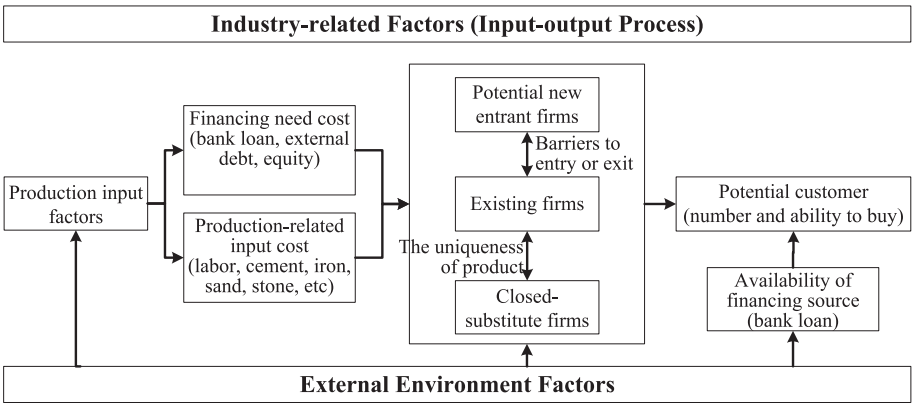

Figure 2. Institutional backgrounds of property and real estate industry in Indonesia

Table 1. Definition of variables and their measurement

Variables	Definition and measurement
Economic risk	ECONRISK = average beta of equation: $SALES_{i,t} = b_0 + b_1 \times GDP_{industry,t} + e_t$ estimated every 5 years for period 1996-2010, where $SALES_i$ is total firm sales and GDP is gross domestic product for property and real estate industry
Business risk	BUSRISK = average beta of equation: $OPCF_{i,t} = b_0 + b_1 \times OPCF_{industry,t} + e_t$ estimated every 5 years for period 1996-2010, where $OPCF_i$ is operating free cash flow for firm i and $OPCF_{industry}$ calculated as sum of $OPCF_i$ for all firms in the industry
Market risk	MARRISK = average beta of equation: $r_{i,t} = b_0 + b_1 \times r_{industry,t} + e_t$ estimated in daily basis for certain year for observation period 1996-2010
Potential growth	POTGROW = average assets market value divided by assets book value for 1996-2010, where assets market value calculated as assets book value + (equity market value – equity book value)
Liquidity	LIQUID = average ratio of cash and short term investments divided by assets book value for 1996-2010
Leverage	DR = average debt book value divided by assets book value for 1996-2010
Firm performance	FCF = average free cash flow per share for 1996-2010
Firm size	LNSIZE = average natural logarithm of assets book value 1996-2010

The positive or negative sign on the model parameters indicates the direction of hypothesized relationships in this study.

RESEARCH METHOD

Data and Variables

This study examines the application of co-alignment model on public companies in property and real estate industry in Indonesia. The period used as sample in this study was between 1996 and 2010. Annual financial report data that have been audited, daily stock price data and industry index during the observation period are taken from Reuters's data stream. Gross domestic product (GDP) for property and real estate industry was taken from the BPS. During the period 1996-2010, there were 42 companies available for analysis. Table 1 shows the detail about definition and measurement of variables that used in this research.

Data analysis methods used in this study are cross-sectional linear regression model. All variables are calculated as the average value during the period of 1996 to 2010. The advantage of this approach is that it avoids the problem of data survival. From the observation, we found that many companies were not present during the whole sample period. Many firms only start or en-

Table 2. Descriptive statistics

Variable	Measurement	Mean	Std Dev	Median	Min	Max
Economic risk	ECONRISK	-2.11	4.44	-1.28	-23.04	3.58
Business risk	BUSRISK	0.73	2.32	0.45	-9.01	7.61
Market risk	MARRISK	1.19	1.30	0.85	-0.81	5.64
Potential growth	POTGROW	1.00	0.34	0.96	0.36	1.88
Liquidity	LIQUID	0.09	0.11	0.06	0.00	0.49
Leverage	DR	0.63	0.31	0.63	0.05	1.75
Firm performance	FCF	-41.01	52.96	-35.65	-217.32	119.98
Firm size	LNSIZE	13.75	1.34	14.21	10.37	15.54

tered the sample period in 2005. Using panel data approach would result in a lot of truncated period for many firms, assuming a balanced panel data.

RESULT AND DISCUSSION

Before starting analysis of the results, some background on institutional property and real estate industries should be discussed. The industry is composed of two sub-industries, namely property and real estate and building construction. In general, the factors that affect this industry can be described in Figure 2.

Figure 2 shows that risk due to dynamics the external environmental conditions greatly affect the firm's operations. The high level of competition excludes price increase as an alternative to obtain safety margin. Cost efficiency and building long term relationships with suppliers should be a solution in the long run. Property and real estate industry is very similar to the hospitality business. Business success depends on market demand curve. Unfortunately, although the property is one of the basic needs, market segments dominated by the upper middle class consumers. This implied that the dynamic of economic factors, such as inflation, interest rates, income per capita, and economic growth, became leading indicators in this industry. Since this business typically is capital intensive and high cash-oriented, accounting profitability measure would be biased in measuring firm's financial performance. Alternatively, free cash flow or operating cash flow should be used instead. Descriptive statistic of the variables analyzed in the model is shown in Table 2. This table shows description statistics of the variables that used in this study. Mean, standard deviation, median, minimum and maximum is calculated on firm total in property and real estate industry during observation period 1996-2010.

Afterward, correlations between variables were analyzed. The results of correlation analysis can be used as early detection for the occurrence of multicollinearity between independent variables. Table 3 shows a result of estimated bivariate correlation between variables in property and real estate industry. The significance is tested by Pearson correlation coefficient test. Following Gujarati (2004), multi collinearity between two variables is likely to occur if the bivariate correlation was greater than 0.80. Since only bivariate correlation analysis was used, result of estimation and correlation test as shown in Table 3 could not automatically be used for multivariate analysis.

Table 3. Correlation analysis

	1	2	3	4	5	6	7	8
1 ECONRISK	1.00	-0.03	0.17	0.12	0.21	-0.02	-0.13	0.14
2 BUSRISK	-0.03	1.00	0.03	-0.04	0.18	-0.03	-0.08	0.17
3 MARRISK	0.17	0.03	1.00	-0.16	-0.11	-0.11	-0.39	0.18
4 POTGROW	0.12	-0.04	-0.16	1.00	-0.35	0.78	0.31	0.50
5 LIQUID	0.21	0.18	-0.11	-0.35**	1.00	-0.40	-0.10	-0.19
6 DR	-0.02	-0.03	-0.11	0.78***	-0.40***	1.00	0.34	0.46
7 FCF	-0.13	-0.08	-0.39**	0.31**	-0.10	0.34**	1.00	-0.29
8 LNSIZE	0.14	0.17	0.18	0.50***	-0.19	0.46***	-0.29*	1.00

Note that the sign * indicated significance at 0.10 (two tails), the sign ** indicated significance at 0.05 (two tails), and indicated significance at 0.01 (two tails).

Table 4. Results of no multicollinearity assumption test

No	Equation	Independent variable	Tolerance	VIF
1	$POTGROW_i = b_0 - b_1\ ECONRISK_i - b_2 \times BUSRISK_i + b_3 \times MARRISK_i + b_4 \times LNSIZE_i + e_i$	ECONRISK	0.96	1.05
		BUSRISK	0.97	1.03
		MARRISK	0.95	1.05
		LNSIZE	0.93	1.08
2	$DR_i = b_0 - b_1\ BUSRISK_i + b_2 \times LIQUID_i - b_3 \times LNSIZE_i + e_i$	BUSRISK	0.93	1.08
		LIKUID	0.92	1.09
		LNSIZE	0.92	1.08
3	$FCFi = b_0 - b_1 \times BUSRISK_i - b_2 \times MARRISK_i + b_3 \times LIQUID_i + b_4 \times LNSIZE_i + e_i$	BUSRISK	0.93	1.08
		MARRISK	0.96	1.04
		LIQUID	0.91	1.10
		LNSIZE	0.90	1.11
4	$LIQUID_i = b_0 + b_1\ POTGROW_i - b_2 \times LNSIZE_i + e_i$	POTGROW	0.75	1.33
		LNSIZE	0.75	1.33
5	$DR_i = b_0 - b_1\ POTGROW_i - b_2 \times LIQUID_i + b_3 \times LNSIZE_i + e_i$	POTGROW	0.69	1.46
		LIKUID	0.88	1.14
		LNSIZE	0.75	1.33
6	$FCF_i = b_0 - b_1\ POTGROW_i + b_2 \times DR_i + b_3\ LNSIZE_i + e_i$	POTGROW	0.37	2.70
		DR	0.39	2.59
		LNSIZE	0.74	1.36

Afterward, correlations between variables were analyzed. The results of correlation analysis can be used as early detection for the occurrence of multicollinearity between independent variables. Table 3 shows a result of estimated bivariate correlation between variables in property and real estate industry. The significance is tested by Pearson correlation coefficient test. Following Gujarati (2004), multi collinearity between two variables is likely to occur if the bivariate correlation was greater than 0.80. Since only bivariate correlation analysis was used, result of estimation and correlation test as shown in Table 3 could not automatically be used for multivariate analysis.

Based on Table 3, the largest bivariate correlation is between POTGROW and DR, namely 0.779, apart from that all correlation below 0.60. Although significant based on Pearson's test results, but based on the rule limit of 0.80, it can be said that there were no multicollinearity problem among variables. Especially that each variable reflects a different measure, so theoreti-

Tabel 5. The results of linear regression analysis

No	Equation	F-stat	R^2	Adj R^2	Independent Variable	Standardized Beta
1	$POTGROW_i = b_0 - b_1 \times ECONRISK_i - b_2 \times BUSRISK_i + b_3 \times MARRISK_i + b_4 \times LNSIZE_i + e_i$	4.52***	0.33	0.26	ECONRISK BUSRISK MARRISK LNSIZE	0.08 -0.12 -0.26* 0.55***
2	$DR_i = b_0 - b_1 \times BUSRISK_i + b_2 \times LIQUID_i - b_3 \times LNSIZE_i + e_i$	5.90***	0.32	0.26	BUSRISK LIQUID LNSIZE	-0.05 -0.31*** 0.41***
3	$FCFi = b_0 - b_1 \times BUSRISK_i - b_2 \times MARRISK_i + b_3 \times LIQUID_i + b_4 \times LNSIZE_i + e_i$	2.85**	0.24	0.15	BUSRISK MARRISK LIQUID LNSIZE	0.01 -0.37** -0.19* -0.26**
4	$LIQUID_i = b_0 + b_1 \times POTGROW_i - b_2 \times LNSIZE_i + e_i$	2.66*	0.12	0.08	POTGROW LNSIZE	-0.33* -0.03
5	$DR_i = b_0 - b_1 \times POTGROW_i - b_2 \times LIQUID_i + b_3 \times LNSIZE_i + e_i$	21.83***	0.63	0.60	POTGROW LIQUID LNSIZE	0.68*** -0.15** 0.10
6	$FCF_i = b_0 - b_1 \times POTGROW_i + b_2 \times DR_i + b_3 \times LNSIZE_i + e_i$	8.85***	0.41	0.36	POTGROW DR LNSIZE	0.34*** 0.37** -0.63***

Note that the sign * indicated significance at 0.10 (two tails), the sign ** indicated significance at 0.05 (two tails), and indicated significance at 0.01 (two tails).

cally multicollinearity can be avoided (See Table 2). While statistically, Gujarati (2004) states that multicollinearity is something that cannot be controlled and avoided by the researcher.

Gujarati (2004), then followed by Chathoth and Olsen (2007) and Su and Vo (2010), used two statistical tests to detect multicollinearity, ie, Tolerance and Variance Inflation Factor (VIF). In Tolerance test statistic, there is a negative relationship between multicollinearity and Tolerance. The higher the Tolerance statistic value, the less likelihood there is multicollinearity in the model estimation, and vice versa. Low multicollinearity indicated by the Tolerance and VIF values close to 1, and conversely Tolerance value close to 0 indicate high multicollinearity. However, to avoid any bias in testing significance variables due to multicollinearity that may occur, we use Newey-West method in parameter estimation process and testing.

The estimation results of cross-sectional linear regression model are shown in Table 5. Equation 1 yield adjusted R^2 of 0.26 and F-statistic for 4.52 which are statistically significant at 0.01. This indicates that overall model was able to explain influence of explanatory variables, namely ECONRISK, BUSRISK, MARRISK and LNSIZE, against dependent variable, namely GRPOTENSIAL. ECONRISK has a positive impact albeit not significant. BUSRISK coefficient is negative but not significant. Coefficient MARRISK is negative and significant at 0.10. Coefficient LNSIZE as control variables showed a positive direction towards POTGROW and statistically significant at the 0.01.

Equation 2 generates adjusted R^2 of 0.26 and F-statistic for 5.90 which are statistically significant at 0.01. This shows that overall model was able to explain impact explanatory variables, namely BUSRISK, LIQUID and LNSIZE, on dependent variable, i.e. DR.

BUSRISK has negative effect albeit not significant. LIQUID coefficient is negative and statistically significant at 0.01. LNSIZE coefficient is positive and statistically significant at 0.01.

Equation 3, in which free cash flow (FCF) is the dependent variable, yields adjusted R^2 of 0.15 and F-statistic for 2.85 which are statistically significant at 0.05. This shows that the overall model is significant in explaining relationship between dependent and independent variables. BUSRISK coefficient is positive but not statistically significant. In contrast, direction of MARRISK coefficient is negative and statistically significant, i.e. the greater FCF then the smaller MARRISK. LIQUID coefficient is negative and significant at 0.10. While the coefficient of the control variable, namely LNSIZE, are negative and statistically significant at 0.05, in which larger firm size meant smaller free cash flow.

Equation 4, where LIQUID is the dependent variable, also shows that the overall model is significant. Adjusted R^2 is 0.08 and F-statistic is 2.66 and statistically significant at 0.10. Both POTGROW and coefficient of control variables, namely LNSIZE, shows negative direction but neither is significant.

Equation 5 has adjusted R^2 at 0.60 and F-statistic for 21.83 and statistically significant at 0.01. This shows that overall model was able to explain impact explanatory variables, namely POTGROW, LIQUID and LNSIZE, against dependent variable, i.e. DR. POTGROW has positive effect and statistically significant at 0.01. LIQUID coefficient is negative and statistically significant at 0.05. LNSIZE also has positive coefficient, although not significant.

Equation 6, in which free cash flow (FCF) is the dependent variable, has adjusted R^2 of 0.33 with F-statistic for 10.94 which are significant at 0.01. This shows that overall model is significant. POTGROW coefficient is positive and statistically significant at 0.01. While coefficient of control variable, namely LNSIZE, is negative and significant at 0.01, i.e. the larger firm size, the smaller firm's free cash flow.

Based on Table 5, we could describe co-alignment model for property and real estate industry as shown in Figure 3. Almost all four variable constructs can be explained through co-alignment model. Environment risks directly affect firm performance through corporate strategy, as well as corporate strategy. Environmental risks affecting capital structure policies either directly or through corporate strategy. As environmental risk, corporate strategy also has direct impacts to financial performance or through policies in capital structure.

Discussion

In general, co-alignment model can confirm the relationships between strategic management and corporate finance theories in explaining variation of firm performance related to the environment risk, corporate strategy and capital structure. Potential growth is more influenced by stock price fluctuation in capital market than by economic factors and industry conditions dynamics. In contrast to Chathoth (2002), who found negative relationship between economic risk and poten-

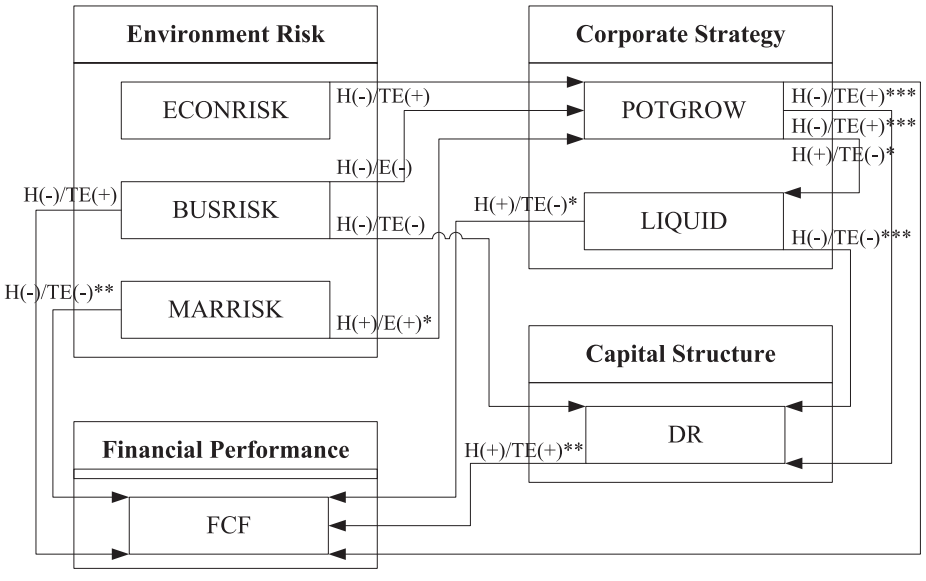

Figure 3. Co-alignment model for property and real estate industry

tial growth, the result shows positive direction in which greater economic risk faced by firms meant increase in potential growth.

This finding indicates that there is no correlation between market volatility and market demand function for property and real estate. This can be caused by two things. *First*, consumer segment in this industry are upper middle class which is economically quite well established and has high credibility in the eyes of bank. Economic turmoil makes it difficult for banks to lend their funds. Collaterals owned by the potential customer and sufficient credibility in the market makes this business segment to be an option for banks. *Second*, Indonesia is an emerging market, with high economic fluctuation as one feature; another feature is that the potential for development of facilities and infrastructure (i.e. highway, bridges, and buildings) is still quite high.

Negative relationship between business risk and growth potential is in line with Krebs (2003) and Santoro and Gaffeo (2009). This relationship is reasonable considering the potential growth supported by cash flow strength. With condition that this industry is capital intensive and high cash-oriented operation, high variability of cash flows resulting in high uncertainty of ability to obtain cash flow and ultimately lowers the capacity for the firm to grow.

Negative relationship between potential growth and liquidity indicate that management does not provide adequate response to potential liquidity risk that may arise from massive expansion strategy by adding liquidity. This finding is consistent with Kim et al. (1998), but different from Baskin (1987) who found positive relationship. In contrast, Su and Vo (2010) found no significant relationship in public companies in Vietnam. The firms in the study are very aggressive to grow by increasing fixed assets at the expense of their most liquid asset, especially their cash. In hedging concept, this condition is very risky, especially if the most-liquid assets to

current liabilities ratio is smaller than 1. In order to avoid liquidity risk, firms tend to use debt instruments. We found that liquidity level is inversely proportional to the leverage used. Higher leverage level means fewer amounts of most liquid assets held by the firm. This finding is in line with Baskin (1987). In another viewpoint, this condition also indicates that firms used debt to fund its business expansion. This certainly adds to the financial distress risk if the firm does not have adequate liquidity management.

CONCLUSION

As expected, firm performance measured through free cash flow per share is affected by economic and market dynamics, corporate strategy and capital structure either directly or indirectly. Interestingly, market risk was actually a significant influence even though stock price volatility should not directly affect firm performance.

In this study, we did not include effect of various macroeconomic factors and industry-specific conditions. Both of these factors are expected to be incorporated through measurement of economic risk and business risk variables. Sample size, i.e. 42 firms, is another limitation of this study. Increasing sample size without sacrificing uniqueness of the industry needs to be done in the next study to enlarge degree of freedom of the model.

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