

# THE INFLUENCE OF TOP MANAGEMENT TEAM COMPOSITION ON COMPANY PERFORMANCE

## The Case of Indonesian Mining Companies

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*Top management team composition is a big issue in international business and management research. In Indonesian context, especially for mining companies, the issue has only limited academic resource. Since most studies in this area conducted in the United States and Europe, the studies are reflecting the culture of the underlying US and Europe population. This research using a sample from 18 Indonesian Mining Companies with 174 top executives from those companies.*

*This study utilizes a deductive method of research as a methodological approach. Each hypothesis analyzes the influence of the composition of the Top Management Team (Independent Variable) on company performance (Dependent Variable), with the relationship made by creating a direct hypothesis of Top Management Team with the value of the return of assets (ROA) and return of equity (ROE) of each company*



*Keywords: Top Management Team, Indonesia Mining Companies*

### Abstract

Several studies have attempted to link the composition of Top Management Team to the company performance, with results varying. Since the publication of scientific works of the future development of upper echelons theory (Hambrick & Mason, 1984), the interest in studying the demographic characteristics of Top Management Team (TMT), and their impact on various organizations has increased exponentially. The upper echelons theory suggests that the visible TMT characteristics are the estimator size of psychological factors affecting strategic choices. Various studies show that organizations are a reflection of its top managers. According to Finkelstein and Hambrick (1996) explored from 1984 to 1996, there are more than two hundred studies of upper echelons theory that have been published. Carpenter et al (2004) also mentioned the composition of the TMT, in terms of diversity of the upper echelons theory due to the duties of internal and external management.

The problem is however that the existing literatures about the composition of Top Management Team are mostly from the United States researches which study companies in the United States. An example of this is Tihanyi et al (2000) who investigated the impact the TMT diversity characteristics of 126 companies in the electronics industry, and discovered the characteristics associated with TMT international expansion. Kilduff et. al. (2000) made use of data from 35 firms and 159 managers, with the results showing good cognitive diversity in the affected and unaffected

teams changes company performance. Herrmann and Datta (2005) based on a sample of 112 manufacturing firms in the United States, found indications that firms with greater international diversification are more likely to have high TMT levels characterized by a higher education, shorter organizational tenure, younger executives and international experience in the wider context. Staples (2005) conducted a study of the world largest TNCs, and found that 60/80 or 75% of these companies had at least one foreigner in their councils.

Some articles also investigated the composition of TMT in European companies, such as Glunk et. al. (2001) who studied and explored the TMT differences and similarities in England, Dutch and Denmark. Furthermore, Heijltjes et al (2003) in their study evaluated the national scale TMT diversity in two countries in Europe, i.e. Netherlands and Sweden, whilst Hendriks (2004) conducted research on TMT diversity and firm performance in IT companies of small and medium sizes in the Netherlands and Belgium. In addition to this, van Veen and Marsman (2008) explained the diversity of nationalities in 15 countries in Europe.

There are only a few articles from other parts of the world which look into this field. Ping (2007) conducted an empirical study of data from 2001-2002 of 356 Chinese companies registered in Shanghai and Shenzhen stock exchanges, which illustrated the Chinese social context and the characteristics of Top Management Team company in its relation to the differing impacts on

company performance (compared to other countries). Also, an article by Julian et. al. (2003) investigated the relationship of TMT composition, group processes, and the impact of these processes in relation to the achievement of the objectives for an International Joint Venture team in Thailand.

In Indonesia, Kusumastuti et. al. (2007) conducted research on the effects of diversity on the composition of management council board and its effect on the company's value from the perspective of corporate governance. Data were taken from 48 manufacturing companies registered in Jakarta Stock Exchange in 2005, with the results showing that simultaneous collective independent variables (the presence of women, Chinese ethnic, an outsider, age, economic background and business) have an impact on company performance. Separately, the presence of Chinese ethnic group had a negative impact on corporate value, whilst other variables had no impact on the company's value.

### Problem Definition

A mining field, especially in a sector of energy and mineral resources, gives a major contribution to the Indonesia economy. As a source of state revenue, the sector of energy and mineral resources contribute at least 30% Indonesia revenue (Majalah Business Review, 2009), approximately Rp 349,5 trillion.

This study investigates the relationship between background characteristics of the composition of Top Management Team

(TMT) and firm performance. The business elites in Indonesia have a very distinctive historical background, compared to the United States, and therefore, they are very different in terms of how the structure of the business elites affects the company performance. Since Top Management Team is a group of strategic decision makers, they bring the company into different directions (depending on their decisions) and exist as partners who are responsible for profits and losses of the company. Furthermore, the relationship between the composition of Top Management Team and the company is a very important issue. Top Management Team Composition is an essential issue in the field of international business and management studies, with only a few having investigated the academic literature of the issue in Indonesia. Such studies were however mostly done in the United States and Europe and thus the results reflect the diversity and cultural values of the population in Western societies.

Based on the differences between countries and management practices, the results of previous studies on the diversity and characteristics may not match the results of a study of companies in Indonesia. Furthermore, there was no research about top management team in mining industry. This study aims at finding the answer to the question whether the composition of the Top Management Team affect the Indonesia mining companies performance.

### Literature Review

**Age.** At demographic level, the diversity of

the team refers to variables such as age which are the dominant measure of difference in the team. This diversity indicator is a measure of estimators for cognitive differences, information and a deeper value, as young managers are expected to have information, experience and different perspectives on strategic issues (than older managers). Pegels and Yang (2000:697) mentioned that older managers tend to avoid risk (Vroom and Pahl, 1971) while the young ones tend to pursue more risky and innovative growth strategies.

**Foreigner.** Lublin (2005) argued that corporate boards of MNCs are going global, particularly in Europe where 90 percent of Europe's largest companies by market capitalization, have at least one director from outside home country. By contrast, only 35 per cent of the largest US companies have a foreign board member. Furthermore, Van Veen and Marsman (2008) argued that nationality diversity is an important requirement for quality of strategic decision. With the good quality in experience and education the presence of foreigners in TMTs in Indonesian companies might affect company performance.

**Gender.** Glunk et al (2001) found that gender distribution is very different in three countries: there are few women executives in the 30 countries, with the exception of the UK, Denmark and Dutch. Furthermore, according to Jarzabkowski & Searle (2001) the diversity shown in the team by this measure tends to weaken, by the time the members of the team start to know each

other. For example, in the early stages of team building, gender differences may be very important to the way the team acts, but over the time, these features are becoming more known and less important.

**Educational Level.** Dahlin et al (2005) found that the education diversity in TMT affects the range and depth of the use of positive information, and may negatively affect the combination of information. However, the ratio of «cognitive bias» (Herrmann and Datta, 2005; Hambrick and Mason, 1984), should be a complementary.

**Top Management Team.** According to Hambrick and colleagues (1996) Top Management Team are all top-level executives at director level. Amason (1996) suggested that Top Management Team is the top-level managers involved in corporate decision making, which is in this case the CEO. These definition are supported also by West and Anderson (1996), West and Schwenk (1996) and also by Amason and Sapienza (1997).

The firm law in Indonesia follows the two-tier management structure as in Europe, and thus Top Management Team in Indonesia consists of commissioner board and management board appointed by shareholders at the AGM. Commissioner board acts as a supervisor and advisor, whilst the management board is responsible for daily operation of the company and also serves as an authorized company for carrying out transactions on behalf of the company.

**Company Performance.** Company performance is the ability to work, which is indicated by the work result. Hawkins (The Oxford Paperback Dictionary, 1979) put forward the notion of performance is as follows: "Performance is: (1) the process or manner of performing, (2) a notable action or achievement, (3) The performing of a play or other entertainment". Company performance is something produced by a company within a certain period with reference to the defined and set standards. Corporate performances are measurable results that describe the empirical conditions of an enterprise of any agreed size. To determine the achieved performance, a performance assessment is conducted, with company performance something that is produced by a company within a certain period with reference to the defined standards.

### Research Methodology

**Research Design.** This study utilizes a deductive method of research as a methodological approach. A deductive study requires conceptual development and structure of previous theories, and it is tested through empirical observation (Gill and Johnson, 2002).

The samples are eighteen listed mining companies in Indonesia Stock Exchange. The data are collected through secondary information, i.e. from 2008 annual report of each company, taken from their respective websites. Data are also taken from 174 executives on all the nine banks.

In this study, each hypothesis analyzes the influence of the composition of the Top Management Team (Independent Variable) on company performance (Dependent Variable), with the relationship made by creating a direct hypothesis of Top Management Team with the value of the return of assets (ROA) and return of equity (ROE) of each company.

### Independent variables

**Age of Top Management Team (X1).** To see the influence of age in top management teams on company performance, with the average age of TMT taken from the year of its birth available in the annual report

**Foreigner of Top Management Team (X2).** To see the influence of foreigner in top management team on company performance

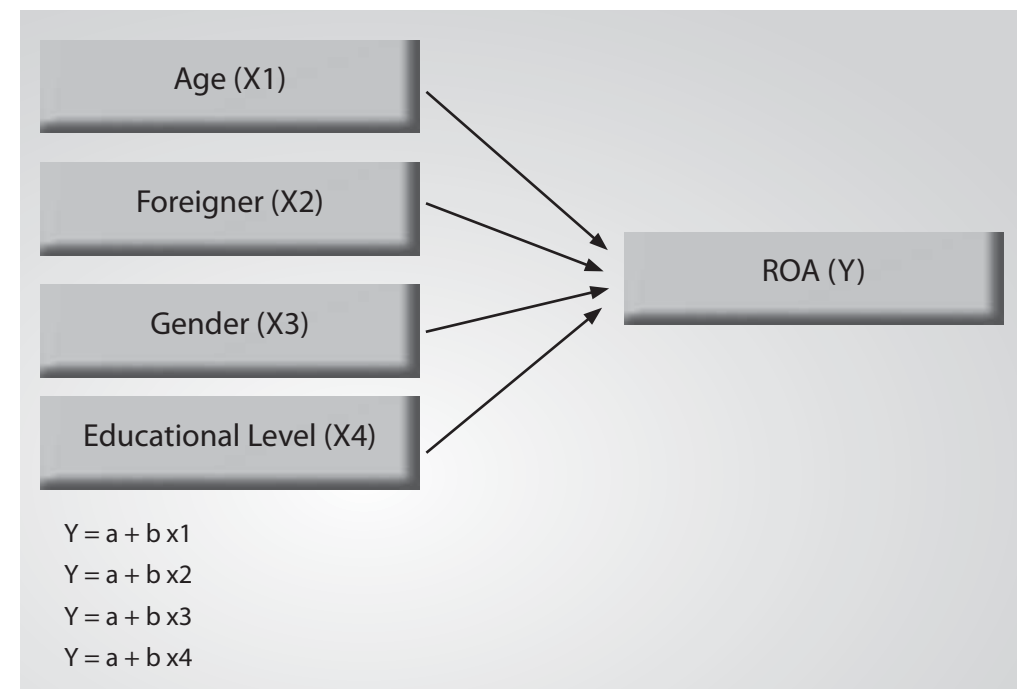
**Gender of Top Management Team (X3).** To see the influence of gender in top management teams on company performance

**Education Level of Top Management Team (X4).** To see the influence of educational background in top management teams on company performance

### Dependent Variable

**Company performance (Y).** To determine the effect of top management team composition on the performance of the company, which will be investigated through the data existing in the annual report. The financial performance

Conceptual Model



however will be measured by return of assets (ROA).

Result Analysis

The Composition of Age on Top Management Team

Table 4.1.1 presents the means, standard deviations, and correlations among the studied variables. Average age ranges from 29 to 76 with a mean of 53.90. Therefore the age between 51- 60 is dominant with 26.4 percent followed by 41-50 (19 percent), and above 61 (17.2 percent) and the last is age between 29-40 (5.2 percent) (Table 4.1.2).

The Composition of Foreigner on Top Management Team

The study selected eighteen companies

with a total of 174 top executives. Among these 174 board members, there were 32 foreigners, accounting for 18.4 percent of the total. Six executives originated from Malaysia which is 18.8 percent. The second largest group were the Brazilians and Thais, with five top executives. (Table 4.2.1 and 4.2.2).

The Composition of Gender on Top Management Team

Table 4.3. shows gender disparity on Top Management Team. There are only 8 top executives which is 4.6 percent from the total of 174 top executives.

The Composition of Educational Level on Top Management Team

The next table (table 4.4.1) shows the

Table 4.1.1 Descriptive Statistics of Age on TMT

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic
Age	118	29	76	53.90	9.318
Valid N (listwise)	118				

Tabel 4.1.2. Frequencies Group of Age on TMT

		Frequency	Percent	Valid Percent
Valid	29 - 40	9	5.2	7.6
	41 - 50	33	19.0	28.0
	51 - 60	46	26.4	39.0
	61 - up	30	17.2	25.4
	Total	118	67.8	100.0
Missing	System	56	32.2	
Total		174	100.0	

Tabel 4.2.1. Foreigner

		Frequency	Percent
Valid	Yes	32	18.4
	No	142	81.6
	Total	174	100.0

Table 4.2.2 Native country of corporate board member

Countries	Board Member	Percentage
UK	4	12.5
Italy	1	3.1
US	1	3.1
Brazil	5	15.6
Australia	3	9.4
India	2	6.3
Singapore	1	3.1
Canada	1	3.1
New Zealand	1	3.1
Malaysia	6	18.8
Indonesia	1	3.1
Thailand	5	15.6
Japan	1	3.1
Total	32	100.0

Tabel 4.3. Gender

Gender		Percentage
Male	166	95.4
Female	8	4.6
Total	174	100.0



educational level on top executives which is dominated by master degree (67 top executives or 38.5%) and followed by bachelor degree (66 top executives or 37.9%) and the last by PhD (18 top executives or 10.3%). Furthermore table 4.4.2 shows academic major background of TMT. Business and Management major is dominant with 48 top executives (27,6%). The next is Engineering with 38 top executives (21.8%), and followed by Accounting and Finance major with 20 top executives (11.5%). There are only 16 top executives (9.2%) hold degree on Mining.

Table 4.4.1 Educational level

		Frequency	Percent	Valid Percent
Valid	Phd	18	10.3	11.6
	Master	67	38.5	43.2
	Bachelor	66	37.9	42.6
	Others	4	2.3	2.6
	Total	155	89.1	100.0
Missing	System	19	10.9	
	Total	174	100.0	

Table 4.4.2 Content of education

		Frequency	Percent	Valid Percent
Valid	Business and Management	48	27.6	31.2
	Economics	11	6.3	7.1
	Accounting and Finance	20	11.5	13.0
	Law	3	1.7	1.9
	Engineering	38	21.8	24.7
	Agriculture	1	.6	.6
	Mining	16	9.2	10.4
	Military and Police	1	.6	.6
	Geology	3	1.7	1.9
	Art and Language	2	1.1	1.3
	Medical and Healthy	2	1.1	1.3
	Earth Science	1	.6	.6
	Chemistry	7	4.0	4.5
	Physics	1	.6	.6
	Total	154	88.5	100.0
	Missing	System	20	11.5
Total		174	100.0	

**Correlation**

Table 4.5 shows that the Age of top management team and ROA has a negative correlation (-0.76). the correlation between a foreigner in top management team and ROA is weak but positive correlation 0.120. Therefore the relationship between gender of the top management team and ROA showed a positive correlation of 0.042 which

is very weak. The relationship between educational level shows a sufficient negative relationship -0.234. These results show that the majority of the correlation relationships of the four variables were very weak. Still from table 4.5, it also illustrated that the correlation between age (0.415), foreigner (0.114), gender (0.580) and educational level (0.003) with ROA were significant.

Table 4.5. Correlations

		Return on Assets	Age	Foreigner	Gender	Educational level
Return on Assets	Pearson Correlation	1	-.076	.120	.042	-.234(**)
	Sig. (2-tailed)		.415	.114	.580	.003
	Sum of Squares and Cross-products	18953.399	-898.446	84.706	16.084	-274.766
	Covariance	109.557	-7.679	.490	.093	-1.784
	N	174	118	174	174	155
Age	Pearson Correlation	-.076	1	.194(*)	-.072	.032
	Sig. (2-tailed)	.415		.035	.437	.743
	Sum of Squares and Cross-products	-898.446	10158.780	89.254	-17.390	23.864
	Covariance	-7.679	86.827	.763	-.149	.219
	N	118	118	118	118	110
Foreigner	Pearson Correlation	.120	.194(*)	1	.033	-.035
	Sig. (2-tailed)	.114	.035		.662	.664
	Sum of Squares and Cross-products	84.706	89.254	26.115	.471	-1.523
	Covariance	.490	.763	.151	.003	-.010
	N	174	118	174	174	155
Gender	Pearson Correlation	.042	-.072	.033	1	.107
	Sig. (2-tailed)	.580	.437	.662		.185
	Sum of Squares and Cross-products	16.084	-17.390	.471	7.632	2.471
	Covariance	.093	-.149	.003	.044	.016
	N	174	118	174	174	155
Educational level	Pearson Correlation	-.234(**)	.032	-.035	.107	1
	Sig. (2-tailed)	.003	.743	.664	.185	
	Sum of Squares and Cross-products	-274.766	23.864	-1.523	2.471	79.768
	Covariance	-1.784	.219	-.010	.016	.518
	N	155	110	155	155	155

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Coefficients**

Equation

$$Y = 21.810 - 0.119 X1 + 2.028 X2 - 1.781 X3 - 2.590 X4$$

1. Every one point increase in X1, Y will decrease by 0.119 in when other variables are considered constant
2. Every one point increase in X2, Y will increase as much as 2.082 where the other variables are considered constant
3. Every one point increase in X3, Y will decrease by 1.871 when other variables are considered constant
4. Every one point increase in X4, Y will

decrease by 2.590 when other variables are considered constant

**Test Models**

From the ANOVA table, the significant value = 0.298 > α, then it can be concluded that the independent variables simultaneously did not affect the dependent variables, so in other words the top management team composition does not affect the company performance.

**Partial Test**

**Age (X1).** From the coefficient table the

Table 4.6 Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t		Sig.
		B	Std. Error	Beta	B	Std. Error	
1	(Constant)	21.810	9.450		2.308		.023
	Age	-.119	.114	-.101	-1.041		.300
	Foreigner	2.028	2.585	.076	.784		.435
	Gender	-1.781	5.104	-.034	-.349		.728
	Educational level	-2.590	1.453	-.171	-1.783		.077

a Dependent Variable: Return on Assets

Table 4.7 ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	604.065	4	151.016	1.240	.298 (a)
	Residual	112782.791	105	121.741		
	Total	13386.856	109			

a Predictors: (Constant), Educational level, Foreigner, Gender, Age

b Dependent Variable: Return on Assets

significant value = 0.300 > α, the conclusion of this is that the independent variable X1 (Age) does not affect the dependent variables (ROA)

**Foreigner (X2).** From the coefficient table, the significant value = 0.435 > α. The conclusion from this is that the independent variable X2 (foreigner) did not affect the dependent variables (ROA)

**Gender (X3).** From the coefficient table, the significant value = 0.728 < α, with the conclusion being that the independent variable X3 (gender) did not affect the dependent variable (ROA)

**Educational Level (X4).** From the coefficient table, the significant value = 0.077 > α, the conclusion is that the independent variable X4 (education level) did not affect the dependent variable (ROA).

With these results, it is clear that the variables which exert the greatest effect on the dependent variable can be seen from table coefficient on the value of Beta. The greatest value held were by the level of education (X4) followed by Age (X1), Foreigner (X3), and the Gender (X2)

**Conclusion**

From the above findings, some conclusions can be drawn about the influence of top management team composition on the company performance in the Indonesia mining companies. The dominant group of age in top management team is between 51 – 60 year-old, with *mean* being 53.90

and indicating that the average age of top management team of the Indonesia mining companies was 53 years old. These results also indicate that the group of age between 51 – 60 years is a mature age for entry into top management team.

For foreigner in top management team, of these 174 board members, shows 32 are foreigners, accounting for 18.4 percent of the total. Of the total 32 top executives, 6 originated from Malaysia which is 18.8 percent. The second largest group were the Brazilians and Thais, with 5 top executives.

For gender, the results illustrated that the number of men entered top management teams more than that of women (i.e. 166 men to the ratio of 8 women). It indicated that in Indonesia women are not interested to involve in mining companies. For the level of education, it can be seen that the executives were still dominated by master degrees, with 67 top executives followed by bachelor with 66 top executives, with doctoral level education holding little presence, i.e. 18 people. This suggests that in the Indonesian mining companies, a doctoral education is not too important.

Furthermore the content of education, the field in business and management is dominant with 48 top executives (27,6%) and next is engineering with 38 top executives (21.8%) and accounting and finance by 20 top executives (11.5%), while the field of Mining is 16 top executives (9.2%) and the others below eight percent.

From the results of correlation analysis, it was shown that the results of this study show that the majority of the correlation relationships between the four variables were weak. From the ANOVA table, the significant value =  $0.298 > \alpha$ , the conclusion was that the independent variables simultaneously does not affect the dependent variables. In that case, top management team composition does not affect the company performance. Also all variables including age, foreigner, gender and the level of education of the top management team have no influence on the performance of Indonesia mining companies.

### Limitations

Based on the limited sample, the findings show no influence on the composition on top management team to Indonesia mining companies. In the future research the study can use bigger sample in order to gain a better statistical result. The future research might think about examining top management decisions, perhaps concerning international strategies, diversification, risk taking, and/or investment strategies, and how these are related to demographic characteristics of the TMT members. The research could add more variables to measure company performance aside from the return on assets, i.e. example return of equity, based on retention data. ■

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- Carpenter, M.A., M.A. Geletkanycz and W.G. Sanders. 2004. Upper Echelons Research Revisited: Antecedents, Elements, and Consequences of Top Management Team Composition. *Journal of Management*, Vol. 30, Issue 6, December, pp.749-778.
- Carter, David A., B.J. Simkins, W.G. Simpson. 2003. Corporate Governance, Board Diversity, and Firm Value, *The Financial Review*, No. 38:33 – 53.
- Finkelstein, S., & Hambrick, D.C. 1996. *Strategic Leadership: Top Executives and their Effects on Organizations*. West, St. Paul, MN.
- Gill, J., and Johnson, P., 2002, *Research methods for manager*. Sage. London
- Glunk, U., Heijltjes M.G. and Olie, R. 2001. Design Characteristics and Functioning of Top Management Teams in Europe. *European Management Journal*, vol. 19, no.3, pp. 291-300
- Heijltjes, M. R. Olie, en U. Glunk. 2003. Internationalization of Top Management Teams in Europe, *European Management Journal*, Vol.21, No.1. pp.89-97, February.
- Hendriks, Walter J., 2004. *Top management team diversity and firm performance*. An empirical research on Belgian and Dutch IT firms.
- Herrmann, P., Datta, D. K., 2005. Relationship between top management team characteristic and international diversification: an empirical investigation" *British Journal of Management*: vol. 16: 69 – 78
- Kilduff, M., Angelmar, R., & Mehra, A. 2000. "Top management-team diversity and firm performance: Examining the role of cognitions". *Organization Science*, 11: 21-34.
- Kusumastuti, Sari., Supatmi, Sastra, Sari., 2007 *Pengaruh Board Diversity Terhadap Nilai Perusahaan dalam Perspektif Corporate Governance*. Jurusan Ekonomi Akuntansi, Fakultas Ekonomi - Universitas Kristen Petra. Surabaya.
- Julian, Craig., Mueller, Carolyn., Wachter, Renee., Van Deusen, Cheryl. 2003. Top Management Teams Of International Joint Ventures In Thailand: The Effects Of Heterogeneity On Group Processes And Goal Attainment. *Journal of International Business and Entrepreneurship Development*. Vol. 1 No. 1 (Special Issue), pp. 104-117 April 2003
- Santrock, John W. 1995. *Life Span Development: Perkembangan Masa Hidup*, edisi 5 jilid II, Penerbit Erlangga, Jakarta.
- Tihanyi, L., Ellstrand, Alan E., Daily, Catherine M., Dan R. Dalton. 2000. Composition of the Top Management Team and Firm International Diversification. *Journal of Management*, vol. 26, no. 6, 2000. Elsevier Science
- Veen, K. Van., Marsman, I. 2008. How International are Executive Boards of MNCs? Nationality Diversity in 15 European Countries, *European Management Journal*, Vol. 26, Iss. 3; p. 188
- Majalah Business Review, Edisi 08, November 2009