

The influence of audit committee's and company's characteristic on intellectual capital disclosure

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Abstract

Purpose – The purpose of this paper is to test the influences of audit committee's and company's characteristic on intellectual capital disclosure (ICD) among the LQ45-listed companies in Indonesia Stock Exchange (BEI) between 2013 and 2014.

Design/methodology/approach – The paper employed multiple linear regression and saturation sample as the analysis methods.

Findings – The findings showed that size of audit committee does not significantly influence ICD; meeting frequency of audit committee positively influences ICD; and company size does not influence ICD positively. On the other hand, profitability does not significantly influence ICD; leverage has negative and significant influence on ICD; and the type of industry does not significantly influence intellectual capital disclosure.

Originality/value – As there are few ICD studies, this research will surely add ICD antecedents to literature.

Keywords Intellectual capital disclosure, Audit committee characteristic, Company characteristic

Paper type Research paper

1. Introduction

Competitive business environment demands a company to employ an innovative method to conduct business. Innovation is needed to guard the company against the demand of innovation and competitive business environment. To maintain the company, it needs to shift labor-based business model toward knowledge-based model with knowledge as its foundation. A company equipped with knowledge and technology can find a way to use other resources efficiently and economically and in turn, provide a competitive advantage for the company (Rupert, 1998). Based on knowledge-based economy, a company's economical value is no longer lies on the production of goods and material, but on the intellectual capital generation.

The significance of intellectual capital in generating company values encourages the company to conduct an intellectual capital disclosure (ICD) in order to keep itself afloat against competitive business environment. According to Suhardjanto and Wardhani (2010), the benefits of intellectual modal disclosure include diminishing asymmetrical information, decreasing capital cost, helping some misevaluation and reducing bid-ask spread.

The level of ICD in an annual report is highly related to audit committee's responsibility for the company's financial report. The committee is responsible for ensuring that the report



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made by company's management represents the truth. They need to ensure that the company is run according to the existing regulations and rules, understand potential risks and internal control system and monitor supervision process conducted by internal auditors. Therefore, the existence of audit committee heavily influences the company (Beasley, 1996; Forker, 1992; Ningsih and Laksito, 2014).

Besides audit committee, company characteristic also acts as a dominantly influential factor in ICD, because the disclosure varies from one company to another (Stephani and Yuyetta, 2012). Sutanto and Supatmi found that the disclosure rate in Indonesia only reached 40.87 percent and happened to nearly every go-public companies, including a group of the biggest companies in Indonesia Stock Exchange (hereafter, BEI) called LQ45 index. Companies within the index are heavily scrutinized by investors and assumed to have good management by the market; thus, they are supposed to apply accountability principles through an ICD. Indonesia has also become one of the major countries that have good quality of human capital. Indonesia has positioned 116 of total worldwide Human Development Indicator (<http://hdr.undp.org/en/countries/profiles/IDN>). Hence, those companies are selected as the samples of this research. Based on the problem and indicators, we aim to find out the influence of audit committee's and company's characteristics on ICD which shall be analyzed based on agency theory. This paper includes literature review, research method, result and discussion and conclusion.

2. Literature review and hypotheses development

2.1 Agency theory

Agency theory explains a contractual relationship between one (or more) party which acts an agent and another party as the principal. It is set in the contract that the principals shall delegate their authorities and responsibilities to the agent to conduct a service in the name of the principals and make a good decision for them (Jensen and Meckling, 1976). Separation between ownership (principal/investor) and control (agent/manager) is the core of agency relationship. However, it can also cause an agency problem in the form of conflict interest.

The existence of audit committee is extremely important as the supervisor of information disclosure. It plays an important role in company's management, particularly in improving the effectiveness of directional board in monitoring the management which emphasizes on report improvement as the main contribution; hence, an effective audit committee can reduce asymmetrical information between stakeholder and management (Forker, 1992; Mangena and Pike, 2005).

2.2 Intellectual capital

Intellectual capital cannot be separated from components within it. There are various intellectual capital's components which were developed by several researchers. They mostly divided intellectual capital into three components, namely, intellectual capital within oneself, within company and within a good relationship with an external party.

Even though there has been no definite definition on ICD, but in practice, it includes various finance and non-finance information, such as employee turnover, job satisfaction, customer turnover and customer satisfaction (Bukh *et al.*, 2005).

2.3 Audit committee's characteristics

Based on a Decree of Bapepam Head and LK Number Kep-643/BL/2012, it is stated that an audit committee shall at least have three members from an independent commissary and a party from external stock symbol or public company who does not own a direct or indirect stock there. In addition, a member of audit committee is required to at least possess an educational degree or expertise in accounting and finance.

2.4 *The size of audit committee and intellectual capital disclosure*

The size of audit committee is highly related to agency theory, particularly to the committee's effectiveness. An effective committee shall be capable of improving internal control by reducing agency cost. The committee shall be utilized as a control measurement which is capable of improving intellectual financial disclosure and in turn, provide an added-value to the company (Ho and Wong, 2001). Based on that description, the first hypothesis of this research is formulated as follows:

H1. Size of audit committee negatively influences intellectual financial disclosure.

2.5 *Audit committee's meeting frequency and intellectual capital disclosure*

The committee's meeting frequency is a method to activate the committee itself. Karamanou and Vafeas (2005) argued that a committee that meets more frequently shall have more time to monitor a company's report process efficiently. Based on the aforementioned description, this following hypothesis is formulated:

H2. Audit committee's meeting frequency positively influences ICD.

2.6 *Company characteristics*

Company characters can be seen from several aspects, namely, type of industry, ownership structure, liquidity level, profitability rate and company size. Based on overall arguments of previous scholars, the most systematic description of company characters is provided by Wallace *et al.* (as cited in Tristanti and Zulaikha, 2012) who classified the variable in three categories:

- (1) structure-related variable which is a relatively stable variable, such as company size and ownership structure;
- (2) performance-related variable whose character changes from time-to-time, namely, profitability, leverage and liquidity; and
- (3) market-related variable which can either change or be stable from time-to-time. It can be a qualitative or quantitative variable.

Ahmad dan Sulaiman (as cited in Suhardjanto and Wardhani, 2010) argued that varied characters of a company also produce a varied relevance and urgency in disclosure. Therefore, this research employs the variable from each category above. Structure-related variable is represented by company size; performance-related variable is represented by leverage and profitability level; and market-related variable is represented by the type of industry.

2.7 *Company size and intellectual capital disclosure*

The bigger a company is, the higher the demand on information disclosure will be. It is also in line with agency theory which stated that the agency cost borne by a big company is larger than a small company; thus, to reduce the cost, a company shall disclose more information. A bigger company shall obtain a more intensive monitoring from stakeholders, particularly to find out how management administers its intellectual capital like employers, customers and worker association (Purnomosidhi, 2006). Based on previous research studies, its theories and scholars' explanations, the following hypothesis is formulated:

H3. Company size positively influences ICD.

2.8 *Profitability and intellectual capital disclosure*

A highly profitable company tends to reveal more information than the low profile one. Such disclosure is conducted to improve stakeholders' confidence on the

company (Bozzolan *et al.*, 2003). Based on the description, this following hypothesis is created:

H4. Profitability positively influences ICD.

2.9 Leverage and intellectual capital disclosure

Leverage is reflected through debt-to-asset ratio which illustrates company's ability to fulfill its liabilities through its assets. Agency theory is one of the theories to explain the relationship between leverage and disclosure in a company's financial report. A company with a higher leverage rate shall disclose more information to reduce agency cost as a result of a huge debt ratio (Jensen and Meckling, 1976 as cited in Marwata, 2001). Based on the description, the following hypothesis is formulated:

H5. Leverage positively influences ICD.

2.10 Type of industry and intellectual capital disclosure

Previous research studies on type of industry and disclosure level mentioned that type of industry affected the level of information provided (Mahmood as cited in Alsaeed, 2006). A technology-based or knowledge-intensive company tends to disclose its intellectual capital more than a company which mainly depends on tangible assets (Whiting and Woodcock, 2011).

Classification of industry type in this research employs Global Industry Classification Standard criteria which are divided into two sectors, namely, high or low incentive for intellectual capital. A technology-based or knowledge-intensive company tends to disclose its intellectual capital more than those who highly depend on tangible assets (Whiting and Woodcock, 2011). Based on the description above, the following hypothesis is formulated:

H6. Type of industry positively influences ICD (Figure 1).

3. Research methods

3.1 Data type and sources

Data used in this research were qualitative data in numbers and ratio from an annual financial report which were related to the research variables. The data used was a secondary

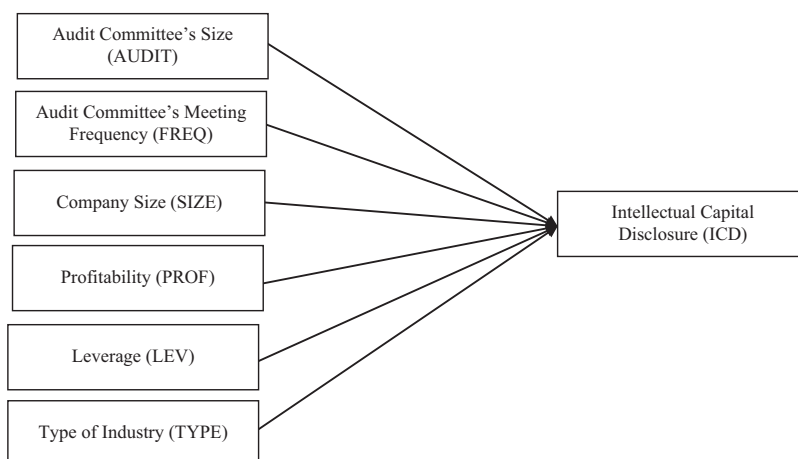


Figure 1.
Conceptual framework

data from LQ45-indexed companies which were listed in BEI between 2013 and 2014, as well as their annual financial reports. The data on this research were taken from BEI's official website (www.idx.co.id).

3.2 Research population and sample

The population in this research was all companies listed in LQ45 index in BEI between 2013 and 2014. The companies listed in LQ45 index changed twice in each period which is during February–July and August–January. In this research, the population was those companies which were listed in LQ45 index between 2013 and 2014. Companies listed in the index frequently attracted investors and were assumed to have good managements by the market; thus, they were expected to enforce accountability principles through ICD. Hence, the sample of this research consisted of the companies listed in LQ45 index.

Dependent variable in this research was ICD using ICD index. The index percentage was calculated as follows:

$$\text{Score} = \frac{\sum di}{m} \times 100\%,$$

where Score is the dependent variable $\rightarrow$ ICD (ICD index); di is 1 if there is ICD item, 0 if there is no ICD item; M the total items which were supposed to be disclosed (61 items).

Independent variables in this research were audit committee's and company's characteristics which include.

3.2.1 Audit committee's characteristics

- Size of audit committee (AUDIT): According to Karamanou and Vafeas (2005), audit committee was supposed to be independent from management's influence to ensure that the information given to the stakeholders were objective; thus, its quality and credibility were guaranteed. This variable was measured by the number of audit committee's members written in company's annual report.
- Audit committee's meeting frequency (FREQ): Financial Reporting Council (2008) recommended that the committee should meet three times a year. The more they meet, the higher the ICD will be. This variable was measured by calculating the number of meeting in a year.

3.2.2 Company characteristics

- Company size (SIZE CORP): it measured how big a company was based on its total asset in financial report balance at the end of the year. In line with Bruggen *et al.*'s (2009) research, company size was measured by logarithmic equation from total asset.
- Profitability (PROF): it was proxied with return on asset (ROA). According to Kamath (2008), company profitability was best to proxy with ROA. The formula to calculate ROA was determined as follows:

$$\text{ROA} = \frac{\text{Earning Before Tax}}{\text{Total Assets}}.$$

- Leverage (LEV): it was a ratio to illustrate the proportion of debt to fund company's asset. This research used debt-to-assets ratio as the proxy of leverage. The ratio showed a company's capability to fulfill its long-term liabilities. The formula to calculate it was as follows:

$$\text{Debt – to – assets ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}.$$

- Type of industry (TYPE): it was measured with a dummy variable. Score 1 was given to high-tech industry and 0 was given to low-tech industry.

3.3 Data analysis

This research employed multiple regression analysis with the following model:

$$ICD = \alpha + \beta_1 AUDIT + \beta_2 FREQ + \beta_3 SIZE + \beta_4 PROF + \beta_5 LEV + \beta_6 TYPE + \varepsilon,$$

where ICD is the intellectual capital disclosure; AUDIT the audit committee's size; FREQ the audit committee's meeting frequency; SIZE the company size; PROF the profitability; LEV the leverage; TYPE the type of Industry; β the constant; $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ the Linear regression coefficient; ε the error.

3.4 Hypothesis testing

3.4.1 Adjusted R^2 . The coefficient of determination measures how capable is the research model to explain the variance of dependent variable (Kuncoro, 2011). Its score varies from 0 to 1. If it is 0, then the variance of independent variable cannot explain the dependence's variance. On the other hand, if it is 1, then the independent variable can explain the dependent one. The larger the coefficient of independent variable is, the more dominant its variance against the dependent variable is.

3.4.2 t -Test. This test is conducted to show to what extent the explanatory variable partially influences the dependent variable. This research employs 5 percent level of significance:

- if sig. t is less than $0.05 = H_0$ rejected, H_1 accepted; and
- if sig. t is more than $0.05 = H_0$ accepted, H_1 rejected.

4. Results and discussion

4.1 Descriptions of research objectives

The objective of this research is to test the influence of audit committee's and company's characteristics on ICD. Audit committee's characteristics consist of its size and meeting frequency; while company's characteristics include its size, profitability, leverage and type of industry. Population in this research was 90 companies which are included in LQ45 index in 2013–2014, while the sampling technique was saturation or census sampling. Hence, for each research period, there were 45 companies taken as the sample.

4.2 Descriptive statistics analysis

Descriptive statistics analysis was conducted to explain a general data characteristic. It explained the research variables' minimum value, maximum value, mean and standard deviation.

Based on the descriptive statistics' results in Table I, it is seen that the smallest audit committee comprised of two members at PT Astra International Tbk in 2013 and PT Adhi

Variables	n	Max.	Min.	Mean	SD
AUDIT	90	2	7	3.540	1.062
FREQ	90	3	59	12.860	12.205
SIZE	90	22.000	36.000	31.022	1.994
PROF	90	-0.094	1.120	0.116	0.143
LEV	90	0.004	0.916	0.492	0.250
TYPE	90	0	1	0.580	0.497
ICD	90	0.230	0.721	0.471	0.113

Table I.
Descriptive statistics

Karya Tbk in 2014; whereas the largest committee comprised of seven members obtained at Perusahaan Gas Negara in 2013 and PT Wijaya Karya in 2014. The average size of audit committee was 0.3540.

Furthermore, the highest meeting frequency among audit committee was recorded by PT Tambang Batubara Bukit Asam Tbk in 2013, while the least frequency was recorded by PT Holcim Indonesia Tbk in 2013. The average of meeting frequency was recorded at 12.860 points. In addition, the largest company size was PT Bank Danamon Tbk in 2013; while the smallest was PT Matahari Departement Store Tbk in 2014. The average company size was 31.022. Moreover, the most profitable company was PT Bank Tabungan Negara Tbk in 2014, while the least profitable company was PT Bumi Resources in 2013. The average profitability was recorded at 0.116.

Meanwhile, the highest leverage was owned by PT Bank Tabungan Negara Indonesia Tbk in 2013, while the lowest one was owned by PT Indocement Tungal Prakarsa Tbk in 2014. The average of leverage was 0.0492. Since the type of industry in this research was classified in two types, it was measured by dummy variable. The maximum value for industry type was 1 for high-tech companies and 0 for low-tech ones. Overall, it was recorded at 0.580 averagely. There were 52 high-tech companies and 38 low-tech companies. At last, the highest value of ICD was recorded by PT Kalbe Farma Tbk in 2013, while the lowest value was recorded by PT Mitra Adiperkasa Tbk in 2013. In general, the average of ICD during research period was 0.471.

4.3 Hypotheses testing

Based on the regression results, the following equation was resulted (Table II):

$$\text{ICD} = 0.033 + 0.0002 \text{ AUDIT} + 0.003 \text{ FREQ} + 0.014 \text{ SIZE} \\ + 0.078 \text{ PROF} - 0.095 \text{ LEV} + 0.021 \text{ TYPE} + \varepsilon.$$

First, the audit committee's size resulted in *t*-value of 0.124 and significant value of 0.901 ($p < 0.05$). It shows that *H1* was rejected; thus, it was concluded that there was no significant influence of audit committee's size on ICD. Next, the meeting frequency recorded *t*-value of 2.350 and significant value of 0.021 ($p < 0.05$). It illustrates that *H2* was accepted; therefore, there was a significant influence of the meeting frequency on ICD. In addition, company size recorded *t*-value of 2.323 (significant value $0.028 < 0.05$). It proves that *H3* was accepted; hence, it can be concluded that company size significantly influenced ICD.

Meanwhile, profitability rate recorded *t*-value of 0.967 and significant value of 0.336 ($p < 0.05$). It proves that *H4* was rejected; thus, profitability did not significantly influence ICD. Moreover, the *t*-value of leverage was acquired at -2.023 and significant rate at 0.046 ($p < 0.05$). It shows that *H5* was accepted which shows that there was a significant influence of leverage on ICD. At last, the type of industry obtained *t*-value of 0.866 and significant

Model		Unstandardized coefficients		Standardized coefficients		<i>T</i>	Sig.
		β	SE	β			
1	(Constant)	0.033	0.186			0.177	0.860
	AUDIT	0.022	0.012	0.014		0.124	0.901
	FREQ	0.003	0.001	0.270		2.350	0.021
	SIZE	0.014	0.006	0.242		2.232	0.028
	PROF	0.078	0.080	0.098		0.967	0.336
	LEV	0.095	0.047	-0.211		-2.023	0.046
	TYPE	0.021	0.024	0.091		0.866	0.389

Note: Dependent variable: ICD

Table II.
Multiple regression
analysis

value of 0.389 ($p < 0.05$). The value shows that $H6$ was rejected; therefore, there was no significant influence of industry type on ICD.

4.3.1 Adjusted R^2 . Data analysis results showed that the value of adjusted R^2 was 0.123. It means that the independent variable (audit committee's size, committee's meeting frequency, company size, profitability, leverage and industry type) was capable to explain the dependent variable within 12.3 percent only; while the rest (87.7 percent) was explained by other factors which were unavailable in this research (Table III).

4.4 Discussion

4.4.1 The influence of audit committee's size on intellectual capital disclosure. This research does not support the agency theory about the committee size and ICD. The committee size is tightly related to agency theory, particularly on the effectiveness of it. An effective committee should be able to improve internal control by reducing agency cost. The existence of audit committee is expected to reduce asymmetrical information by improving the quality and extent of information through ICD.

Furthermore, this research does not support Li *et al.*'s (2008) research which found that the committee size positively and significantly influences ICD. It does not successfully prove that there is an influence of committee size on ICD. Therefore, it is in line with the research of Taliyang and Jusop (2011) who also did not find the same result. Moreover, this finding is strengthened by Karamanou and Vafeas' (2005) study which found that the committee size tends to be detrimental toward diffusion and responsibility process. Varied research findings indicate that the influence of committee size on the ICD is determined by a country's regulation. In Indonesia, the existence of audit committee cannot be separated from Bapepam Regulation No. KEP 29/PM/2004. The regulation standardizes that every public company is required to have an audit company with at least one independent commissary and two other members from an external party. Moreover, the existing regulation on ICD has not regulated it in detail, thus, disclosure conducted by the company is still few and voluntary based (Badan Pengawas Pasar Modal, 2004).

4.4.2 The influence of committee's meeting frequency on intellectual capital disclosure. This research successfully proves that a company with a high level of audit committee's meeting frequency discloses its intellectual capital more often. It is in line with Li *et al.*'s (2008) study. A highly frequent meeting is expected to reduce asymmetrical information by improving information's quality and coverage which is possible through ICD.

Highly frequent meeting enables the company to improve its ICD's practice. Even though it is conducted voluntarily, but through a frequent meeting, the committee is capable of considering the main issue in competitive business and business shifts from labor based to knowledge based. Therefore, ICD becomes a main factor in creating company value.

4.4.3 The influence of company size on intellectual capital disclosure. This research proves that a big company conducts more ICD. It is in line with the studies conducted by Ousama *et al.* (2012). Company size refers to a scale in which a company can be classified. The bigger the company, the demand for disclosure will also be higher than the smaller one. It is in line with agency theory which stated that agency cost borne by a big company is larger; thus, in order to reduce it, a company needs to disclose more information.

Model	R	R^2	Adjusted R^2	SE of the estimate
1.	0.427 ^a	0.182	0.123	0.1064541

Notes: Predictors: (Constant), TYPE, AUDIT, PROF, LEV, SIZE, FREQ; Dependent variable: ICD

Table III.
Adjusted R^2

4.4.4 *The influence of profitability on intellectual capital disclosure.* This research is not in line with the signaling theory. It means a highly profitable company will have a better incentive to send a signal to other companies. However, the research findings do not support the theory, as low profitability level is not an obstacle for the company to voluntarily disclose the information in order to signal about company's performance or information openness. On the other hand, a high level of profitability tends to limit its access to information, particularly on its intellectual capital, in order to prevent its competitors to imitate its creativity, idea, innovation then endangers a company's competitive advantage.

4.4.5 *The influence of leverage on intellectual capital disclosure.* This research successfully proves that a company with a high level of leverage shall conduct fewer ICD. It is in line with Belkaoui and Karpik's (1989) research. A company tends to avoid an exposure from bondholders; thus, with high leverage, it reduces its ICD.

4.4.6 *The influence of industry type on intellectual capital disclosure.* This research is not in line with the theoretical framework, the signaling theory, which connects two types of industry (high tech and low tech) to ICD. It is expected that high-tech industry discloses its intellectual disclosure more, as a positive signal to their stakeholder. This research views its disalignment with signal theory as an effort to maintain a company's competitive advantage, because a high level of intellectual disclosure elicits fears that the disclosure will be used by a competitor to imitate creativity, idea and innovation.

5. Conclusion, research limitation and suggestion

The conclusion reached from this research are: the size of audit committee, profitability rate and type of industry do not influence ICD in LQ45-indexed companies; the frequency of audit committee meeting and company size positively influence ICD; leverage level negatively influences ICD; and only 47.1 percent LQ45-indexed companies averagely conduct ICD in their financial reports in 2013–2014. It shows that the level of ICD is still relatively low.

Meanwhile, the limitation of this research lies in how to assess which disclosure shall be assessed subjectively from each item made by Li *et al.* (2008). Therefore, suggestion for future research is to change the sample with companies from other field or extend the research period, since adjusted R^2 only recorded at 12.3 percent. The percentage shows that there are other variables outside the research model which influence ICD, so that future research is advised to add or change the number of research variable.

References

- Alsaeed, K. (2006), "The association between firm-specific characteristics and disclosure", *Managerial Auditing Journal*, Vol. 21 No. 5, pp. 476-496.
- Badan Pengawas Pasar Modal (2004), "Kep-29/PM/2004", Pembentukan dan Pedoman Kerja Komite Audit.
- Beasley, M.S. (1996), "An empirical analysis of the relation between the board of director composition and financial statement fraud", *The Accounting Review*, Vol. 71 No. 4, pp. 443-465.
- Belkaoui, A. and Karpik, P.G. (1989), "Determinants of the corporate decision to disclose social information", *Accounting, Auditing and Accountability Journal*, Vol. 2 No. 1, pp. 36-51.
- Bozzolan, S., Favotto, F. and Ricceri, F. (2003), "Italian annual intellectual capital disclosure: an empirical analysis", *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 543-558.
- Bruggen, A., Vergauwen, P. and Dao, M. (2009), "Determinants of intellectual capital disclosure: evidence from Australia", *Journal of Management Decision*, Vol. 47 No. 2, pp. 233-245.
- Bukh, P.N., Nielsen, C., Gormsen, P. and Mouritsen, J. (2005), "Disclosure of information on intellectual capital in Danish IPO prospectuses", *Accounting, Auditing and Accountability Journal*, Vol. 18 No. 6, pp. 713-732.

- Financial Reporting Council (2008), "Guidance on audit committees. Diakses dari", available at: [www.frc.org.uk/FRC-Documents/FRC/Guidance-on-Audit-Committees-\(October-2008\).aspx](http://www.frc.org.uk/FRC-Documents/FRC/Guidance-on-Audit-Committees-(October-2008).aspx)
- Forker, J.J. (1992), "Corporate governance and disclosure quality", *Accounting and Business Research*, Vol. 22 No. 86, pp. 111-124.
- Ho, S.S.M. and Wong, K.S. (2001), "A study of the relationship between corporate governance structures and the extent of voluntary disclosure", *Journal of International Accounting, Auditing & Taxation*, Vol. 10 No. 2, pp. 139-156.
- Jensen, M.C. and Meckling, W.H. (1976), "Theory of the firm: managerial behaviour, agency cost and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305-360.
- Kamath, G.B. (2008), "Intellectual capital and corporate performance in Indian pharmaceutical industry", *Journal of Intellectual Capital*, Vol. 9 No. 4, pp. 684-704.
- Karamanou, I. and Vafeas, N. (2005), "The association between corporate boards, audit committees, and management earnings forecasts: an empirical analysis", *Journal of Accounting Research*, Vol. 43 No. 3, pp. 453-486.
- Kuncoro, M. (2011), *Metode Kuantitatif (Teori dan Aplikasi Untuk Bisnis & Ekonomi)*, UPP STIM YKPN, Yogyakarta.
- Li, J., Pike, R. and Haniffa, R. (2008), "Intellectual capital disclosure and corporate governance structure in UK firms", *Accounting and Business Research*, Vol. 38 No. 2, pp. 137-159, available at: <http://dx.doi.org/10.1080/00014788.2008.9663326>
- Mangena, M. and Pike, R. (2005), "The effect of audit committee shareholding, financial expertise and size on interim financial disclosures", *Accounting & Business Research*, Vol. 35 No. 4, pp. 327-349.
- Marwata, P. (2001), "Hubungan antara Karakteristik Perusahaan dan Kualitas Ungkapan Sukarela dalam Laporan Tahunan Perusahaan Publik di Indonesia", *Simpodium Nasional Akuntansi IV, Bandung*.
- Ningsih, M.W. and Laksito, H. (2014), "Pengaruh Karakteristik Komite Audit terhadap Pengungkapan Modal Intelektual", *Diponegoro Journal of Accounting*, Vol. 3 No. 3, pp. 1-13.
- Ousama, A.A., Fatima, A. and Hafiz-Majdi, A.R. (2012), "Determinants of intellectual capital reporting", *Journal of Accounting in Emerging Economies*, Vol. 2 No. 2, pp. 119-139.
- Purnomosidhi, B. (2006), "Praktik Pengungkapan Modal Intelektual pada Perusahaan Publik di BEJ", *The Indonesian Journal of Accounting Research*, Vol. 9 No. 1, pp. 111-149.
- Rupert, B. (1998), "The measurement of intellectual capital", *Management Accounting*, Vol. 76, November, pp. 26-28.
- Stephani, T. and Yuyetta, E.N. (2012), "Analisis Faktor-faktor yang Mempengaruhi Intellectual Capital Disclosure (ICD)", *Diponegoro Journal of Accounting*, Vol. 1 No. 2, pp. 2-8.
- Suhardjanto and Wardhani (2010), "Praktik Intellectual Capital Disclosure Perusahaan yang Terdaftar di Bursa Efek Indonesia", *Jurnal Akuntansi dan Auditing Indonesia*, Vol. 14 No. 1, pp. 71-85.
- Taliyang, S.M. and Jusop, M. (2011), "Intellectual capital disclosure and corporate governance", *International Journal of Business and Management*, Vol. 6 No. 12, pp. 109-117.
- Trisanti, L.L. and Zulaikha (2012), "Analisis Pengaruh Karakteristik Perusahaan Terhadap Kelengkapan Pengungkapan Sukarela", Universitas Diponegoro, Semarang.
- Whiting, R.H. and Woodcock, J. (2011), "Firm characteristics and intellectual capital disclosure by Australian companies", *Journal of Human Resource Costing & Accounting*, Vol. 15 No. 2, pp. 102-126.

Further reading

- Abhayawansa, S., Guthrie, J. and Bernardi, C. (2019), "Intellectual capital accounting in the age of integrated reporting: a commentary", *Journal of Intellectual Capital*, Vol. 20 No. 1, pp. 2-10.
- Goebel, V. (2019), "Drivers for voluntary intellectual capital reporting based on agency theory", *Journal of Intellectual Capital*, Vol. 20 No. 2, pp. 264-281.

- Guthrie, J., Petty, R. and Ricceri, F. (2006), "The voluntary reporting of intellectual capital: comparing evidence from Hong Kong and Australia", *Journal of Intellectual Capital*, Vol. 7 No. 2, pp. 254-271.
- Sawarjuwono, T. and Kadir, A.P. (2004), "Intellectual Capital: Perlakuan, Pengukuran dan Pelaporan (Sebuah Library Research)", *Jurnal Akuntansi dan Keuangan*, Vol. 5 No. 1, pp. 35-57.
- Sutanto, F.D. and Supatmi, S. (2012), "Pengaruh Karakteristik Perusahaan Terhadap Tingkat Pengungkapan Intellectual Capital di Dalam Laporan Tahunan (Studi Pada Industri Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2009)", available at: <http://eprints.unisbank.ac.id/180/1/artikel-18.pdf>
- Sveiby, K.E. (1997), *The New Organizational Wealth: Managing and Measuring Knowledge Based Asset*, San Francisco, CA.

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