"Ownership composition and intellectual capital disclosure: Indonesia as a case study"

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OWNERSHIP COMPOSITION AND INTELLECTUAL CAPITAL DISCLOSURE: INDONESIA AS A CASE STUDY

Abstract

This study explores whether ownership structure (comprising ownership concentration, foreign, managerial, and institutional ownership) affects intellectual capital disclosure (ICD) in Southeast Asia's largest stock market and Indonesia's emerging economy. The sample includes 323 public firms listed on the Indonesia Stock Exchange (IDX) from seven industries between 2008 and 2017, or 2,634 firm-year observations. Data were analyzed using the ordinary least squares (OLS) regression with robust standard errors. The results show that ICD is positively related to ownership concentration. A negative and substantial relationship was found for both foreign and managerial ownerships, while the institutional ownership variable had a negative and insignificant impact. Overall, the results show robust conclusions regarding the impact of the ownership structure on ICD. The findings of this investigation could be taken into account by capital market authorities such as the Indonesia Stock Exchange (IDX) to raise awareness of intellectual capital and improve ICD practices.

Keywords	ownership concentration, managerial ownership, foreign ownership, institutional ownership, intellectual capital disclosure, Indonesia
JEL Classification	E44, M13, O34

INTRODUCTION

The shift from physical capital to a knowledge economy has brought about significant changes in the nature, structure, and operations of companies. Most companies have started to focus on intangible assets or intellectual capital (IC) rather than tangible assets. IC is gradually replacing fixed assets as the most important matter for a company. IC is also considered important because competition does not only focus on tangible assets, but also on the company's innovation, its information systems, organizational management, and human resources. Therefore, the ability and knowledge become one of the focuses of a company at this time though the focus of increasing the company's intellectual capital must also be related to increasing disclosure of intellectual capital (ICD).

Disclosure of information by a company provides a signal that describes the quality of the company towards stakeholders. The information disclosed is in the form of mandatory disclosure and voluntary disclosure. Disclosures address costs and benefits, which are relatively difficult to measure, especially the measurement of benefits. How extensive the information is disclosed needs attention so that the information presented is not too much which can cause noise and not too little that can mislead users. Hence, it is important to carefully manage the information sufficient to influence stakeholders' judgments and decisions.

The objective of managing disclosure of information is not limited to what can be stated in a financial statement. Financial reporting also includes the provision of information that must be revealed in accordance with policies or laws by authorities, as well as information, which management considers beneficial for external parties to be disclosed voluntarily. Hence, the company does not only focus on increasing intellectual capital, but also provides the required intellectual capital information. This is an important factor in the company as a strategy in achieving corporate goals as a supplementary communication.

In Indonesia, officials have regulated the disclosure of information such as Act 14 of 2008 on Public Information (KIP), Financial Services Authority Regulation No. 60/POJK.04/2015 on the Transparency of Information of Particular Shareholders, Financial Authority Services Regulation Number 29/POJK.04/2016 concerning the Annual Report of an Issuer or a Public Company, and most recently, the Financial Authority Services Regulation Number 43./POJK.04/2020 covering obligations of the information disclosure and corporate governance for public corporations or listed issuers falling into the issuer-class owning small or medium scale resources. However, an increase in intellectual capital of many companies does not match the level of intellectual capital disclosure (ICD). This can lead to increased information asymmetry, making it difficult for stakeholders to make decisions.

1. LITERATURE REVIEW

The separation of administration from ownership in a company creates a conflict of interest between shareholders and directors. Moreover, this is supported by the agency theory reiterating a clash caused by the division of control from ownership in modern corporations (Jensen & Meckling, 1976). Oliveira et al. (2006) posit there is a greater motivation in corporations with stronger ownership decentralization to reveal information freely and lessen expenses. Therefore, spread ownership influences the way news is disclosed (Eng & Mak, 2003). In fact, disclosure is likely larger in companies owned broadly, therefore owners of capital can effectively monitor the management, and their economic interests can be optimized (Hidalgo et al., 2011). Craswell and Taylor (1992) showed that the higher agency cost for non-disclosure and the cost of ownership for disclosure are the two factors that determine the manager's disclosure decision. Mckinnon and Dalimunthe (1993) state that ownership diffusion is a factor of a manager's disclosure decision in Australia.

Earlier investigations, however, discovered conflicting findings to show diffused ownership concentration causing a little extent of disclosure. This is because the average shareholder has a low percentage of ownership. Due to this low percentage of each shareholder, they cannot make decisions in a company (Barako et al., 2006). Ferreira

et al. (2012) also stated that different interests in contracting parties caused high agency conflicts in companies with low ownership concentrations. This was because such companies had more indirectly involved shareholders, and dominant actors had access to management information (Prencipe, 2004). García-Meca and Sánchez-Ballesta (2010) revealed a relationship between deliberate disclosure and ownership concentration using meta-analysis. The results show that lower disclosures are supported by firms with a high degree of concentrated ownership.

Focusing on intellectual capital disclosure, Martins et al. (2016) and Alfraih (2018) opined a straight association between ownership concentration and ICD. The findings further indicated a positive connection between the two themes and therefore signified a reinforcement for managers to boost intellectual capital disclosure. Oliveira et al. (2006), Li et al. (2008) and Tejedo-Romero et al. (2017), however, found a contradictory result, while Hidalgo et al. (2011) found no relationship.

Agency theory explains that there is information asymmetry between the principal and the agent due to differences in interests. Therefore, high managerial ownership forces management to disclose little information as the company does not have an intense relationship with external parties. Jensen and Meckling (1976) stated that high share ownership by management over the company's

capital could reduce agency problems. Meanwhile, managers who are company owners will be interested in disclosing information to increase the liquidity of shares and to adhere to the constraints imposed by insider trading regulations. Therefore, where there is strong administrative ownership in the capital organization, disclosure is encouraged and agency expenses are capable of being lessened. Moreover, with a quantum for ownership shares, agency expenses are also lessened, since shareholders' and directors' interests become unified (Jensen & Meckling, 1976). However, Fama and Jensen (1983) claimed there was a negative influence of large managerial ownership on capitalization of offered identity value by the managers and members in self-profit.

There was earlier research discovering managerial ownership negatively affected the level of voluntary disclosure (Eng & Mak, 2003; Barros et al., 2013). Nonetheless, Li and Qi (2008) found a positive and significant association between the two, while Manegena and Pike (2005) found none. Also, Hidalgo et al. (2011) analyzed the disclosure of intellectual capital in Mexican corporations and reported a negative but significant relationship between managerial ownership and ICD.

According to Brown et al. (2004), access to finance, market knowledge, improved technology and management skills amongst foreign owners significantly affect productivity. Furthermore, foreign investors pay attention to management evaluation appraisals and keep high standard of information disclosure (Boubakri et al. 2005). According to Naser et al. (2002), due to more regional and international market experience, foreign investors demand high disclosure standards. Haniffa and Coke (2002) discovered for Malaysian listed corporations that foreign financiers significantly and positively affected voluntary disclosures. Similarly, Barako et al. (2006), focusing on firms listed on the Nairobi Stock Exchange (NSE), found that foreign shareholding positively and significantly influenced voluntary disclosure. Al Akra et al. (2010) also found a positive relationship between foreign investors and voluntary disclosure in listed Jordanian companies. Similarly, Khan et al. (2013), focusing on the extent of corporate social responsibility (CSR) disclosures in Bangladesh, found that foreign ownership significantly influ-

enced voluntary CSR disclosure. However, Cheng and Courtenay (2006) found no relationship in SGX listed companies. A study on intellectual capital disclosure was conducted by Muttakin et al. (2015). The results indicated that higher foreign ownership correlated with a larger quantum of ICD.

According to Jensen and Meckling (1976), institutional shareholders play a crucial role in reducing agency conflicts that can arise between shareholders and managers. The presence of these shareholders in a company is considered to be able to effectively control every strategic decision and action taken by company managers. Shleifer and Vishny (1986) confirmed the position and approved the experience of institutional investors and supervisory capability concerning corporate management costs that contribute to governance and ICD. Lakhal (2005) found that institutional ownership positively and significantly impacted voluntary disclosure of French firms. Barako et al. (2006) focus on Kenyan companies and document that voluntary disclosure has higher possibility with greater institutional ownership existing. Mangena and Pike (2005) state that institutional ownership positively influences voluntary disclosure, while Hannifa and Cooke (2002) found no relationship between the two variables. Focusing on the disclosure of intellectual capital, Hidalgo et al. (2011) established that institutional ownership negatively influenced disclosure.

2. HYPOTHESES DEVELOPMENT

The research hypotheses were based on a combination of the theoretical background of voluntary disclosure and experimental investigations. There are various determining variables for intellectual capital disclosure, with a major element being ownership structure. The ICD theoretical outline indicates ownership composition affects whether intellectual capital is disclosed. In light of this discussion, the relationship between ownership structures and ICD was explored. Taken together, the following hypotheses are proposed:

H1: *Ownership concentration positively influences intellectual capital disclosure.*

H2: *Managerial ownership negatively influences intellectual capital disclosure.*

H3: *Foreign ownership positively influences intellectual capital disclosure.*

H4: *Institutional ownership positively influences intellectual capital disclosure.*

3. METHODOLOGY

The sample consisted of firms publicly listed on the Indonesia Stock Exchange (IDX). Seven industry classifications were used as a guideline to classify firms as follows: Agriculture, Mining, Basic Industry and Chemicals, Miscellaneous, Consumer Goods Industry, Property Real Estate and Building Construction, Trade Services, and Investment. For each of the sample firms, annual reports were used as the source of necessary data. This study spanned from 2008–2017, which made it possible to investigate ICD reporting trends in Indonesia. There were 422 companies listed on the stock exchanges (IDX) as of December 31, 2017, but only 323 met the criteria as shown in Table 1.

Table 1. Sample firms by industry

Source: IDX, author's calculation.

Industry	N	Percent
Agriculture	15	4.6
Mining	33	10.2
Basic Industry & Chemicals	55	17.0
Miscellaneous Industry	34	10.5
Consumer Goods Industry	25	7.7
Property Real Estate & Building Construction	48	14.9
Trade Services & Investment	113	35.0
Total	323	100.0

There are three types of variables – independent, dependent, and control. The dependent is ICD, and is classified into three groups (see Table 2), which include Internal Capital Category (ICC), External Capital Category (ECC) and Human Capital Category (HCC). The method for measuring the ICD was by using the disclosure index developed through a modified methodology by Muttakin et al. (2015) and Vergauven and Alem (2005).

Table 2. Intellectual capital disclosure checklist

Source: Muttakin et al. (2015), Vergauven and Alem (2005).

Internal capital categories (ICC)	External capital categories (ECC)	Human capital categories (HCC)
Management philosophy	Customer satisfaction and loyalty	Know-how
Corporate culture	Quality standards	Vocational qualifications
Processes	Company image/reputation	Employee training
Systems	Favourable contract	Employee education
Networking	Business collaborations	Work related knowledge
Financial relations	Licensing agreements	Entrepreneurial spirit, innovativeness
	Franchising agreements	Union activity
	Distribution channels	Employee thanked
	Market share	Employee involvement in the community
		Employee share and option scheme
		Employee benefits
		Profit sharing
		Health and safety
		Equity issues

According to Cerbioni and Parbonetti (2007), Abeysekera, (2010) and Muttakin et al. (2015), ICD measurements use content analysis. The analysis was conducted using an unweighted dichotomous procedure. Following the content analysis process, the score is 1 when the annual report contains the item disclosure. Conversely, the score is 0 when the yearly report displays absence of any item disclosure. The disclosure score indicator is structured as follows:

$$ICD_j = \frac{\sum_{t=1}^{n_j} x_{i,j}}{m}, \qquad (1)$$

with n_j as the firm j's overall precise disclosure score, and m as the maximum relevant disclosure items (32 items).

This study employs the ownership structure as an independent variable comprising foreign, managerial, concentration, and institutional ownership. Furthermore, control variables in-

clude Firms Size, Leverage, Profitability, Age of a Firm, and Board Meeting. Following Brüggen et al. (2009), Hidalgo et al. (2011), Martins et al. (2016), Tejedo-Romero et al. (2017), Muttakin et al. (2015), and Nadeem (2020), several control variables were used such as *SIZE*, *LEV*, *ROA*, *AGE* and *MEET*. The bigger the company (SIZE), the more the tendency to disclose information. In addition, those with a higher leverage ratio (LEV) will disclose more information, especially about intellectual capital due to a high level of financial risk. Moreover, there is higher possibility of corporations revealing more information when their financial statements show good performance (ROA). Those with an older age (AGE) disclose more information, and those that have a high frequency of meeting activity (MEET) like to share information with the public.

Regression analysis is employed in this study to assess whether ownership structure variables affect ICD levels. The equation for regression is as follows:

$$ICD_{i,t} = \alpha_{i,t} + \beta_1 CON_{i,t} + \beta_2 MEN_{i,t} + \\ + \beta_3 FORG_{i,t} + \beta_4 INST_{i,t} + \beta_5 SIZE_{i,t} + \\ + \beta_6 LEV_{i,t} + \beta_7 ROA_{i,t} + \beta_8 AGE_{i,t} + \\ + \beta_9 MEET_{i,t} + \varepsilon_{i,t},$$

(2)

where *ICD* = Intellectual Capital Disclosure, *CON* = Ownership of shares possessed by one or more individuals at 5%, *MEN* = Share percentage managers owned, *FORG* = Share percentage foreign financiers owned, *INST* = Share percentage institutional financiers owned, *SIZE* = The overall assets natural logarithm, *LEV* = Proportion of overall debt to overall equity, *ROA* = The proportion of net gains to overall asset, *AGE* = The company's age since the incorporation date, and *MEET* = Overall amount of yearly board meetings.

Furthermore, the study employed ordinary least squares (OLS). However, there were several assumptions in the regression analysis that needed to be the Best Linear Unbiased Estimator (BLUE) in estimating with OLS. Therefore, to deal with Heteroscedasticity and autocorrelation issues, HAC (heteroscedasticity and autocorrelation) robust standard errors were used in the panel data (Wooldridge, 2009).

4. EMPIRICAL RESULTS AND DISCUSSION

The descriptive data on the variables employed in analyzing the whole sample is displayed in Table 3. Average ICD in the sample is 0.5196 and a standard deviation is 0.1641. These results show that the average ICD for the sample is more than half of the total actual disclosure of the total items (32 items). Overall, the average of the variables is greater than the standard deviation. Therefore, it can be a good representation except for the managerial, foreign, and institutional ownership, as well as leverage variables.

In the multivariate regression analysis, the degree of correlation between the explanatory variables is shown in Table 4. The correlation matrix was not found to be highly correlated with the explanatory variables, justifying that multicollinearity is not an issue. According to Kennedy (2008), multicollinearity is not a problem in a data when the correlation is above 0.70. In this case, there is no issue.

The relationship between ICD and explanatory variables was estimated using OLS with heteroscedasticity and autocorrelation (HAC) robust standard errors. To specify the range of correlation, control variables were included in a hypothesized study determining the impact of ownership structures. Seemingly, distributed ownership concentration positively influenced disclosure through management behavior monitoring (see Table 5). Generally, a company improved ICD by achieving high ownership concentration thereby supporting H1. This is in line with Haniffa and Cooke (2002), Eng and Mak (2003), Martins et al. (2016), and Alfraih (2018), who stated that information disclosure had a direct effect on ownership concentration.

High managerial ownership makes management tend to disclose low intellectual capital, because a company does not have an intensive relationship with external parties, and the majority shareholder of the company receives more information than is contained in the annual report. Therefore, this research outcome confirms H2 and indicates a negative statistical effect of managerial ownership on ICD. This is in support of earlier research by Eng and Mak (2003), Barros et al. (2013), and

Table 3. Descriptive statistics

Variables	Symbol	Definition and measure	Obs.	Mean	Std dev.
Intellectual Capital Disclosure	IC	Intellectual capital disclosure score/Indices	2634	0.5196	0.1641
Ownership Concentration	CON	Ownership of shares possessed by one or more individuals 5%	2634	51.8967	21.0388
Managerial Ownership	MEN	Shares percentage the managers owned	2634	2.9701	10.4632
Foreign Ownership	FORG	Shares percentage foreign financiers owned	2634	19.3571	28.7394
Institutional Ownership	INST	Shares percentage institutional financiers owned	2634	9.5009	20.7802
Firms Size	SIZE	The overall assets natural logarithm	2634	23.2408	5.0853
Leverage	LEV	The proportion of overall debt to overall equity	2634	1.6614	6.0520
Profitability	ROA	The proportion of net gains to overall asset	2634	0.4118	1.8849
Age of Firm	AGE	The age of firm from the date of its establishment	2634	31.6894	17.5349
Board Meeting	MEET	Total number of board meetings held per year	2634	6.9605	6.3774

Table 4. Correlation matrix

Variables	CON	MEN	FORG	INST	SIZE	LEV	ROA	AGE	MEET
CON	1.0000								
MEN	−0.0844	1.0000							
FORG	0.0028	−0.0154	1.0000						
INST	−0.0796	−0.0217	0.0531	1.0000					
SIZE	−0.1318	−0.0039	−0.0999	0.0822	1.0000				
LEV	−0.0688	−0.0145	0.0156	−0.0085	0.0199	1.0000			
ROA	−0.0468	0.0818	−0.0187	0.0353	−0.0751	−0.0167	1.0000		
AGE	0.1345	0.0488	0.1375	−0.0664	−0.1029	−0.0115	−0.0082	1.0000	
MEET	0.0400	0.0283	−0.1194	0.0433	0.1007	−0.0165	−0.0189	0.1311	1.0000

Table 5. Impact of ownership structure on intellectual capital disclosure

Explanatory variable	Dependent variable: ICD					
	(1)	(2)	(3)	(4)	(5)	(6)
CON	0.00098***				0.00096***	0.00087***
	(0.00015)				(0.00015)	(0.00015)
MEN		−0.00077**			−0.00065**	−0.00064**
		(0.00032)			(0.00032)	(0.00031)
FORG			−0.00029**		−0.00031***	−0.00030**
			(0.00011)		(0.00011)	(0.00010)
INST				−0.00006	0.00001	−1.36e-06
				(0.00016)	(0.00016)	(0.00016)
SIZE						−0.00010
						(0.00064)
LEV						0.00044
						(0.00041)
ROA						−0.00095
						(0.00016)
AGE						0.00060***
						(0.00016)
MEET						0.00224***
						(0.00051)
Constant	0.45962***	0.51155***	0.51609***	0.51093***	0.46797***	0.44097***
	(0.04783)	(0.01837)	(0.01842)	(0.01828)	(0.01930)	(0.02560)
Industry dummy	Yes	Yes	Yes	Yes	Yes	Yes
Year dummy	Yes	Yes	Yes	Yes	Yes	Yes
R Squared (within)	0.0803	0.0671	0.0671	0.0648	0.0844	0.0975
F-Statistic	13.30	11.53	11.34	11.28	11.78	11.65
Prob > *F*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Observation	2634	2634	2634	2634	2634	2634

Notes: * Levels of significance at 10%, ** levels of significance at 5%, and *** levels of significance at 1%. ICD = Intellectual capital disclosure, CON = Ownership of shares possessed by one or more individuals (5%), MEN = Share percentage the managers owned, FORG = Share percentage the foreign financiers owned, INST = Share percentage the institutional financiers owned, SIZE = The overall assets natural logarithm, LEV = The proportion of overall debt to overall equity, ROA = The proportion of net gains to overall assets, AGE = The company's age since the incorporation date, and MEET = Overall amount of yearly board meetings.

Hidalgo et al. (2011), documenting a negative and significant relationship between managerial ownership and ICD.

This study analyzed whether foreign ownership (FORG) affected the ICD level and found a negative substantial effect, meaning that a higher ratio resulted in lower ICD levels. Hence, H3 is not supported. These findings contradict Haniffa and Coke (2002), Barako et al. (2006), Muttakin et al. (2015), Khan et al. (2013), and Al Akra et al. (2010), the observation of foreign ownership positively and substantially influenced the disclosure of information. This outcome indicates that foreign financiers analyze public data better than local financiers in developing countries, and are likely to be involved in speculative trading.

With regard to institutional ownership (INST), the association of institutional ownership with the ICD level was analyzed. The findings of earlier studies

contradict either a positive or negative, but not statistically significant, relationship. This study found no statistically significant institutional ownership (INST). The implication is the level of sample corporations ICD is not impacted by INST, and, therefore, H4 is not supported. These findings are corroborated by Hannifa and Cooke's (2002) report that found no relationship between institutional ownership and voluntary disclosure. A possible reason for such a finding could be due to the low average institutional ownership in companies, which results in weak investors in encouraging increased voluntary disclosure. Turning to the control variables, Age of a Firm (AGE) and Board Meeting (MEET) are found to have a positive and significant influence on the ICD level. This confirms expectations and supports the results of earlier research by Barros et al. (2013) and Muttakin et al. (2015).

This section tested the strength of the central findings using two methods. First, following Nadeem

Table 6. Impact of ownership structure on intellectual capital disclosure: high vs low

Explanatory variable	Sub-samples	
	High	Low
	(1)	(2)
CON	0.00052***	0.00013
	(0.00019)	(0.00014)
MEN	−0.00106***	−0.00022
	(0.00037)	(0.00036)
FORG	−0.00003*	0.00017
	(0.00013)	(0.00011)
INST	−0.00001	−0.00034**
	(0.00018)	(0.00015)
SIZE	−0.00154**	−0.00039
	(0.00068)	(0.00068)
LEV	0.00361***	−0.00017
	(0.00083)	(0.00033)
ROA	0.00579	0.00217**
	(0.00467)	(0.00088)
AGE	−0.00020	0.00025
	(0.00016)	(0.00022)
MEET	0.00208***	0.00103**
	(0.00060)	(0.00040)
Constant	0.56416***	0.32258***
	(0.02941)	(0.02480)
Industry dummy	Yes	Yes
Year dummy	Yes	Yes
R Squared	0.1647	0.1185
F-Statistic	9.60	7.10
Prob > F	0.0000	0.0000
Observation	1306	1328

Notes: * Levels of significance at 10%, ** levels of significance at 5%, and *** levels of significance at 1%. ICD = Intellectual Capital Disclosure, CON = Share ownership held by one person or more 5%, MEN = Percentage of shares owned by the managers, FORG = Percentage of shares owned by the foreign investors, INST = Percentage of shares owned by institutional investors, SIZE = The natural logarithm of total assets, LEV = The ratio of total debt to total equity, ROA = The ratio of net profit to total assets, AGE = The age of a firm from the date of establishment, and MEET = Total number of board meetings held per year.

Table 7. Impact of ownership structure on different categories of intellectual capital disclosure

Explanatory variable	ICC	ECC	HCC
	(1)	(2)	(3)
CON	0.00120***	0.00093***	0.00069***
	(0.0002)	(0.00020)	(0.00018)
MEN	0.00015***	0.00047	−0.00094**
	(0.00054)	(0.00034)	(0.00045)
FORG	−0.00024	−0.00036**	−0.00025*
	(0.00016)	(0.00016)	(0.00013)
INST	−0.00068***	0.00012	0.00025
	(0.00021)	(0.00024)	(0.00019)
SIZE	0.00186**	−0.00025	−0.00081
	(0.00088)	(0.00084)	(0.00078)
LEV	0.00092**	−0.00033	0.00026
	(0.00043)	(0.00054)	(0.00050)
ROA	0.00119	−0.00136	0.00169
	(0.00159)	(0.00142)	(0.00157)
AGE	0.00039*	0.00084***	0.00049**
	(0.00022)	(0.00023)	(0.00020)
MEET	0.00009	0.00340***	0.00245***
	(0.00073)	(0.00060)	(0.00065)
Constant	0.61607***	0.29086***	0.47151***
	(0.03488)	(0.03322)	(0.03178)
Industry dummy	Yes	Yes	Yes
Year dummy	Yes	Yes	Yes
R Squared	0.0869	0.0599	0.0781
F-Statistic	9.34	7.10	9.29
Prob > *F*	0.0000	0.0000	0.0000
Observation	2634	2634	2634

Notes: * Levels of significance at 10%, ** levels of significance at 5%, and *** levels of significance at 1%. ICC = Internal Capital Categories, ECC = External Capital Categories, HCC = Human Capital Categories, CON = Share ownership held by one person or more 5%, MEN = Percentage of shares owned by managers, FORG = Percentage of shares owned by foreign investors, INST = Percentage of shares owned by institutional investors, SIZE = The natural logarithm of total assets, LEV = The ratio of total debt to total equity, ROA = The ratio of net profit to total assets, AGE = The age of a firm from the date of establishment, and MEET = Total number of board meetings held per year.

(2020), the sample was divided into two groups, high ICD and low ICD firms, to check robustness of the main results. The findings from this analysis also suggested that the relationship between the ownership structure and the ICD is consistent with the main results, especially in high ICD firms (see Table 6). Secondly, according to Muttakin et al. (2015), this study also employed the extent of ICD for the following different categories of intellectual capital: Internal Capital Categories (ICC), External Capital Categories (ECC) and Human Capital Categories (HCC). Table 7 shows the estimated results by employing different categories of intellectual capital. As expected, the results of these robustness tests further validated the main findings to confirm that the ownership structure significantly affects ICD.

CONCLUSION AND RECOMMENDATIONS

Research related to voluntary disclosures is comparatively novel, with various explanations for why companies disclose information voluntarily, including intellectual capital disclosure (ICD). This study determines the influence of concentration, managerial, foreign, and institutional ownership on ICD. To determine the relationship, 323 public firms listed on Indonesia Stock Exchange (IDX) were analyzed. The results showed that ownership concentration positively influenced ICD. Furthermore, managerial and foreign ownership negatively impacted ICD. Finally, institutional ownership (INST) did not influence the extent of sample companies ICD. Additionally, the results passed a series of robustness checks, including alternative measures of ICD with different categories and alternative sub-samples.

The general discovery made in this study offers empirical evidence that ownership structure is an important element of intellectual capital disclosure (ICD) in Indonesia as in developing countries. These findings can be taken into consideration by capital market authorities such as the Indonesia Stock Exchange (IDX) to help raise awareness of intellectual capital and improve ICD practices by considering ownership regulations. Moreover, it was found that foreign ownership positively and substantially influenced ICD. A foreign ownership variable must be specified, such as foreign institutional ownership or individual foreign ownership, which may be included in future research. Consequently, the availability of data in such an area could lead to stronger claims of causality between foreign ownership and ICD.

AUTHOR CONTRIBUTIONS

Conceptualization: Yana Ulfah.
Data curation: Rizky Yudaruddin, Yanzil Azizil Yudaruddin.
Formal analysis: Yana Ulfah, Rizky Yudaruddin.
Funding acquisition: Yana Ulfah.
Investigation: Yana Ulfah.
Methodology: Yana Ulfah, Rizky Yudaruddin, Yanzil Azizil Yudaruddin.
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Software: Rizky Yudaruddin, Yanzil Azizil Yudaruddin.
Supervision: Yana Ulfah.
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