Impact of Integrated Reporting Quality Disclosure on Cost of Equity Capital in Australia and New Zealand

Hazhar Pira Sharif¹ | Jalila Johari² * 10 | Wan Fadzilah³ | Lau Wei Theng⁴

¹Universiti Putra Malaysia, Putra Business School, 43400, Serdang, Selangor, Malaysia ²Universiti Putra Malaysia, School of Business and Economic, 43400 Serdang, Selangor, Malaysia ³Universiti Putra Malaysia, Putra Business School, 43400, Serdang, Selangor, Malaysia ⁴Universiti Putra Malaysia, School of Business and Economic, 43400 Serdang Selangor, Malaysia

*Correspondence to: Jalila Johari, Universiti Putra Malaysia, School of Business and Economic, 43400 Serdang, Selangor, Malaysia. E-mail: jjohari@upm.edu.my

Abstract: This study aims to ascertain the relationship between the integrated reporting quality (IRQ) disclosures and the implied cost of equity capital (ICC) in the developed markets of Australia and New Zealand. The study provides empirical results on whether companies producing higher-quality integrated reporting (IR) under a regular process can reduce equity capital costs. This study focuses on the benefits of IR and notes that there is actually more information asymmetry between firms and investors than previously believed. The study concludes that IR plays a salient role in capital costs (when information asymmetry is greater) than cross-sectional tests. The 100 companies studied were chosen based on Standard and Poor market capitalization listed in Australia and New Zealand from 2014 until 2016. The study considered a total of 870 observations of post-implementation IR. Further, data were collected from a validated secondary database. This study showed a significant, negative relationship between IRQ and the ICC in the developed market. The results of this study encourage companies that have not yet adopted IR to do so for accelerating reduction in the ICC. Consequently, this study can help promote IR and attract more countries to implement IR policies to enhance IR research.

Keywords: developed market, implied cost of equity capital, integrated reporting quality.

Article info: Received 14 April 2021 | revised 7 November 2021 | accepted 28 November 2021

Recommended citation: Sharif, H. P., Johari, J., Fadzilah, W., & Theng, L. W. (2021). Impact of Integrated Reporting Quality Disclosure on Cost of Equity Capital in Australia and New Zealand. *Indonesian Journal of Sustainability Accounting and Management*, 5(2), 311–323. https://doi.org/10.28992/ijsam.v5i2.400

INTRODUCTION

Over the years, corporate reporting has evolved within growing economies due to the enhanced necessity to be transparent and fair with the capital markets. Companies were being advised to report their overall performance to enable stakeholders to take relevant decisions (García-Sánchez & Noguera-Gámez, 2017). Furthermore, the rise in interest for non-financial information has caused more companies to participate in sustainability reporting (KPMG, 2017). The ever-increasing requirement for corporate transparency has encouraged companies to report their economic, social, and environmental performance to shareholders, investors, and the public. Moreover, IR was developed to address the difficulties faced by companies to analyze the amount of information (García-Sánchez & Noguera-Gámez, 2017).



The IR was introduced for two main reasons: 1) traditional reporting was unable to link the relevance of financial reporting, sustainability and strategies used (Serafeim, 2015), and 2) traditional reporting failed to promote value creation mechanisms in constantly adapting to business environment changes (Adams & Simnett, 2011). Furthermore, IR is defined as a "new form of corporate reporting that has emerged after decades of calls by academics and practitioners for a more holistic and integrated corporate reporting on the economic, environmental, and social aspects of business" (Mohammad, 2019). The International Integrated Reporting Council (IIRC) defines an integrated report as "a concise communication about the strategy, governance, performance, and prospects in an organization that leads to the creation of value over the short, medium, and long term" (IIRC, 2013).

Many companies choose to disclose information that minimizes social tensions and this voluntary practice has benefits like the redefining of political costs associated with legal requirements, taxes, and rates (Rodrigue et al., 2008). Firms which disclose high-quality information will effectively minimize asymmetric information issue following capital costs (Easley & O'Hara, 2004). Consequently, IR provides both financial and non-financial information in one report to link the levels of voluntary disclosure and ICC (Barth et al., 2017; García-Sánchez & Noguera-Gámez, 2017). Furthermore, the IR concept evolves around stakeholders that demand more coherent and concise value creation stories from the companies.

Notably, IR practice is allegedly voluntary, yet most conglomerates have adopted this process intentionally is more applicable to industrialized countries such as Australia and New Zealand which have an efficient market performance and provide better protection for investors due to common law practices (Burke & Clark, 2016; De Villiers & Sharma, 2017).

This study investigated the role of IR as new corporate reporting behavior and the effects in reducing the equity capital in the 100 top companies listed in Australia and New Zealand which have a high equity capital (Zarebski & Dimovski, 2012). The lack of trust in the management about the quality of investment consequently leads to investors charging an equity premium for providing capital to the firm (Core, 2001).

Prior studies indicate that there is a correlation between non-financial information such as Corporate Social Responsibility (CSR) and the ICC (Dhaliwal et al., 2011) and now have become compulsory by corporations in European countries (Rahman et al., 2020). Moreover, CSR reduces financial constraints experienced by firms due to increased sales, cost efficiency, and reduced cost of capital (Ronald et al., 2019). Furthermore, investigated the relationship between CSR, investors' protection, and the ICC and noted that countries with strong investor protection due to CSR implementation resulted in lower equity costs.

Several studies have examined the relationship between IRQ and ICC. The association between the integrated information and cost of capital in 27 countries around the world using a sample of 995 companies and 3294 observations were studied and the study found that the disclosure of integrated reporting is negatively associated with the cost of capital (García-Sánchez & Noguera-Gámez, 2017; Zhou et al., 2017). García-Sánchez & Noguera-Gámez (2017) argued that the differences in the corporate governance systems of these countries are not reflected in the findings. Moreover, Barth et al. (2017) conducted a study on 80 firms listed in the Johannesburg Stock Exchange (JSE) indicated no relationship between IRQ and the ICC. Conversely, Lee & Yeo (2016) found a positive relationship between disclosure in IR and firm valuation. Thus, the results were inconsistent in investigating the relationship between IRQ and ICC (Barth et al., 2017; García-Sánchez & Noguera-Gámez, 2017; Zhou et al., 2017).

This study is based on the theory of voluntary disclosure with a high level of corporate reporting disclosure. This study hypothesis that voluntary disclosure leads to the reduction of information asymmetry among investors

(Diamond & Verrecchia, 1991; Kim & Verrecchia, 1994), reduction of estimation risk, and increased transparency, which results in a lower ICC (Zhou, 2015). Moreover, a theoretical framework identified the need to use forward-looking information to estimate the ICC (Sharfman & Fernando, 2008; Dhaliwal et al., 2011). The cost of capital was affected by a theoretical link between disclosure policy and reporting quality (Beyer et al., 2010).

Previous studies used voluntary disclosure theory, processing information theory, political, social, and institutional theory to examine the relationship between IRQ disclosure and ICC (Lee & Yeo, 2016; Melloni et al., 2017; Barth et al., 2017). This study aimed to examine the relationship between IRQ disclosure and the implied ICC of top companies in Australia and New Zealand which practice integrated reports anchored by the voluntary disclosure theory.

METHODS

Based on the study, five variables were investigated to observe the quality of IR reporting in New Zealand and Australia. The variables used in this study were listed and defined in Table 1.

Variable (Acronym)	Definition (Source)
ICC PEG	ICC was measured by the price/earnings-to-growth (PEG) model adapted from (Blanco et al., 2015; Persakis & Latridis, 2016; García-Sánchez & Noguera-Gámez, 2017).
IRQDIS	The IRQ findings were scored from 'o to 3' where zero 'o' was assigned for compliance, '1' if the companies provided general qualitative disclosures, '2' if the company provided specific information, and '3' for detailed discussion incorporating quantitative figures (Appendix 1) adapted from (Akhter & Ishihara, 2018; Haji & Anifowose, 2016).
SIZE	Company size.
LTG	Long Term Growth (LTG) is the average of the monthly long-term growth rate during the fiscal year, which was obtained from the IBES (Gebhardt et al., 2001; Dhaliwal et al., 2011)
ROA	The return of assets (ROA) calculated the profitability ratio which indicated the profit generated by the company from the assets (Martin et al., 2018)
CSR	CSR use dummy variables coded if a company issues a standalone CSR report in addition to the annual IR during the fiscal year (Dhaliwal et al., 2011).
LEV	The Leverage Ration Definition (LEV) was calculated using total debt divided by the total assets of a company to reflect the financial risk faced by a firm (Isnurhadi et al., 2020)

Table 1 Study Variable Definitions

The target sample of this study was the top 100 largest companies listed on the Australian and New Zealand stock exchanges based upon the S&P market capitalization which engaged in IR for a period of four years (2014 to 2018). The study data was collected from various sources including 870 samples of forecasted Earnings per Share (EPS) results from the Institutional Brokers' Estimate System (IBES) for monthly COC estimates for a year, annual IR reports, company websites, and the IIR database. The Ordinary least square (OLS) and fixed effect (FE) techniques were used to overcome the endogeneity problems indicated by the Hausman test. Lastly, the data were analyzed using STATA 14 statistical software.

$$ICC_{it} = \beta o + \beta 1 IRQ_{it} + \beta 2 SIZE_{it} + \beta 3 LTG_{it} + \beta 4 ROA_{it} + \beta 5 CSR_{it} + \beta 6 LEV_{it} + \eta i + \epsilon_{it}$$

RESULTS AND DISCUSSION

Based on Table 2, the average ICC in both countries was 0.298 with a minimum value of 0.138 and a maximum value of 6.087 which was higher than companies listed in the United States (0.11) and South African (0.137) (Easton & Monahan, 2005; Zhou et al., 2017). Resultantly, Australia and New Zealand have a higher cost of capital compared to the United States and South Africa. The standard deviation of 0.100 showed that most companies in Australia and New Zealand had an ICC value close to the average ICC; however, several companies have extremely low or high ICC.

The average IRQDIS score was 0.723, with a minimum score of 0.106 and a maximum score of 3.464. Compared to the benchmark score of 3, companies in Australia and New Zealand did not perform well with regards to the IR framework. Based on the standard deviation results (0.456), a huge gap was identified among the sampled companies regarding IRQ.

Variable	Observed (N)	Mean	Standard Deviation	Min	Max
ICC-PEG	870	0.298	0.100	0.138	0.667
IRQDIS	870	0.723	0.470	0.106	3.464
SIZE	870	2.813	0.978	1.021	6.087
LTG	870	0.209	0.143	0.017	0.695
ROA	870	0.286	0.197	0.182	0.588
CSR	870	0.100	0.085	0.006	0.481
LEV	870	0.155	0.070	0.012	0.524

Table 2 Summary Statistic for Full Sample Size

This finding corresponded to Pavlopoulos et al. (2017), where the average IRQDIS score index was 0.395 with maximum scoring of 1.000. This score was lower than Zhou et al. (2017) who investigated the IRQDIS score (6.283) in South African companies that reported a full disclosure checklist containing content elements and guiding principles).

The average size of companies in this study was 2.813 with a minimum value of 1.021, a maximum value of 6.087, and a standard deviation of 0.978, thus indicating that the study sampled relatively different company sizes. The average monthly LTG rate was 0.209, minimum of 0.017, maximum of 0.695, and standard deviation of 0.143. The average ROA was 0.286, minimum of 0.182, maximum of 0.588, and standard deviation of 0.070. The average CSR score was 0.100, minimum 0.006, maximum 0.481, and standard deviation of 0.085. The average LEV was 0.155, minimum of 0.012, maximum of 0.524, and standard deviation of 0.070.

According to Table 3, the implied ICC had a significant, negative correlation of -0.087 with the size while IRQ had a significant and positive relationship at 0.037 with size. This result indicated that ICC had a positive correlation to LTG at 0.319. Conversely, ICC had a significant and negative relationship with ROA (-0.75) but showed a positive and significant relationship with IRQDIS (0.832).

Resultantly, ICC had a positive and significant correlation to CSR (0.191). Likewise, CSR showed a positive and significant correlation (0.709) to IRQDIS. Lastly, the result showed that ICC had a negative and significant correlation LEV at 0.4372. Overall, the results corroborate the first hypothesis of this study and are like Dhaliwal et al. (2011).

OBS (N= 870)	ICC PEG	IRQDIS	SIZE	LTG	ROA	CSR	LEV
ICC-PEG	1						
IRQDIS	-0.139**	1					
SIZE	-0.087	0.037	1				
LTG	0.319**	0.832**	0.0256	1			
CSR	-0.751	0.179**	-0.106*	0.122**	1		
ROA	0.191**	0.709**	-0.030	0.800**	0.42	1	
LEV	0.4372	0.0033	-0.107*	0.2309*	-0.124*	0.0451	1

Table 3 The Relationship among Research Variables (Bivariate Correlation)

The multicollinearity problems encountered in this study can be solved using the variance inflation factors (VIF). A VIF threshold value of 10 indicates that no multicollinearity problem exists according to Hair et al., (2006) and Gujarati, (2003). The variables had a low VIF value under 5.1 which confirms the absence of multicollinearity problems (Hair et al., 2006).

Heteroscedasticity is the constancy in the variance of errors across the observations. If the variance in errors is not constant, then the residual variance is heteroskedastic. The presence of heteroscedasticity can be tested using Cameron and Trivedi's decomposition of the IM-test (Kutner & Olson, 2008) and White's General Heteroscedasticity Test was used to detect heteroscedasticity in this study (see Table 4).

Table 4 Heteroscedasticity Test

Regression	Model	Wald Chi-Square Test		
		Chi² (174) Prob> Chibar² H Null		H Null
ICC	1	2.2e + 06	0.0000	Rejected

Market capitalization for firms from Australia and New Zealand used in this study are fundamentally assumed to be homogeneous. To reconfirm this assumption, the homogeneity of variance was reconfirmed with the Levene F test, whereby F (4.72) = 0.19, P = 0.03. The independent sample t-test was associated with a statistically significant effect, whereby t (520) = -2.35, P = 0.03. This result was statistically significant in both the Levene and independent sample t-tests, thus validating the assumption of equal variance.

Endogeneity represents a statistical problem that occurs in multiple regression analyses when an independent variable is correlated with the error term. According to Chenhall and Moers (2007), the endogeneity problem may lead to biased and inconsistent estimators when the OLS estimation is used as there is no correlation between the dependent variable and the error term. Endogeneity is caused by omitted variables or the self-selection problem. The Hausman specification test was used to test for endogeneity and to provide justification to choose between the fixed or random effect. The Hausman specification test results are shown in Table 5.

^{*}Correlation is significant at the 0.05 level (1-tailed)

Table 5 Hausman Test Results

Test	Value	Model 1
Hausman test	Chi-square	32.36
	(p-value)	0.000

Chi-square in parentheses *, **, and *** represent the significant at 10%, 5% and 1%.

The null hypothesis is there is no correlation between the regressors and the error term while the alternative hypothesis predicts a correlation between the regressors and the error term. Resultantly, the R-squared value for model 1 that shows the goodness-of-fit of the model was 64.8%, indicating that the model was a good fit for further analysis.

In model 1 the p-value was less than 5%, leading to the rejection of the null hypothesis. Thus, this study showed a correlation between the regression and the error term, therefore a fixed regression model was appropriate in this study.

According to Allison (2009), Fixed Effect solved the endogeneity problem by controlling, measuring, and including each stable and unused variable in the regression model.

The Fixed Effect result shown in Table 6 indicates that the IRQ has a negative impact at a 99% level on the ICC of top firms in Australia and New Zealand.

Studies carried out by García-Sánchez & Noguera-Gámez (2017) and Zhou et al. (2017) concurred that IRQ helped reduce the ICC. Furthermore, theoretical research supports a negative association between quality disclosure and the cost of capital (Botosan, 1997). Public disclosure reduces information asymmetry by displacing private information and risk estimation. The decrease in risk may decrease the risk premium demanded by investors and decrease the capital cost procured by the firm.

Overall, these results suggest that high-quality IRQDIS reduces the ICC for firms which support the first hypothesis that the top firms in Australia and New Zealand disclosing high-quality corporate reporting including IR have a lower ICC. The result demonstrates that firms need to produce IR as a new practice to lower the ICC as firms that practice IR have improved business activity and attract more foreign direct investments.

The size of a company has a significant, positive relationship with ICC indicating that bigger companies have a greater need for funding to support a higher cost of capital, this result is like Dhaliwal et al. (2011). The LTG variables in the models showed a positive and significant effect at a 99% level of confidence consistent with studies carried out by Gebhardt et al. (2001). Thus, most control variables support enhances the relationship between IRQDIS and ICC.

IR provides high-level disclosure allowing stakeholders to gain a complete understanding of the strategies and the performance of a company. IR gives investors relevant information to help long-term decision making. Furthermore, IR is a way of integrating a broader set of factors fundamental to the long-term of a company and provides better communication. An IR benefits all stakeholders in an organization, lowering ICC and should be practiced by more companies.

Table 6 Panel Data Estimation Results

Variables	POLS Regression	Random Effect	Fixed Effect
variables	ICC	ICC	ICC
IRQ	-0.257***	-0.250***	-0.214***
	(0.0110)	(0.0111)	(0.0138)
SIZE	0.000678	0.00211	0.0146***
	(0.00270)	(0.00289)	(0.00495)
ITG	0.941***	0.918***	0.823***
	(0.0404)	(0.0401)	(0.0473)
ROA	-0.00476	-0.00439	0.00510
	(0.0137)	(0.0147)	(0.0273)
CSR	-0.0811	-0.0809	-0.0968
	(0.0530)	(0.0537)	(0.0683)
LEV	0.211***	0.243***	0.449***
	(0.0418)	(0.0440)	(0.0669)
Constant	0.263***	0.253***	0.179***
	(0.0115)	(0.0123)	(0.0204)
Observations	870	870	870
R-squared	0.650		0.648
Number of codes		174	174

The coefficient values (Robust t-statistics) are shown with standard errors clustered at the company level at *** p<0.01, ** p<0.05, and * p<0.

CONCLUSION

IR in Australia and New Zealand is voluntary where only the top companies adopt it. Voluntary information disclosure has focused on various kinds of information disclosure like sustainability reporting and environmental reporting based on the IIR framework. Moreover, IR enables companies to reduce equity cost by making high-quality disclosure in pertinent areas of operation, strategy, risk, and how firms create value over time encouraging stakeholders to invest. This study encourages companies that have not produced IR to accelerate the reduction in the ICC. Consequently, this study can help promote IR to the world to attract more countries to implement IR policies to enhance IR research. Future research should investigate knowledge on the cost of capital implications of IR adoption consider classifying the samples based on the extent of the adoption (full adoption, partial adoption, and non-adoption).

ORCID

Jalila Johari http://orcid.org/0000-0001-9887-626X

REFERENCES

- Adams, S. & Simnett, R. (2011). Integrated Reporting: An Opportunity for Australia's Not for Profit Sector. *Australian Accounting Review, 21*(3), 292–301. DOI:10.1111/j.1835-2561.2011.00143.x
- Akhter T., & Ishihara, T. (2018). Assessing the Gap between Integrated Reporting and Current Corporate Reporting: A Study in the UK. *International Review of Business*, 18, 137-157.
- Allison, P. D. (2009). Fixed Effects Regression Models. Quantitative Applications in the Social Sciences. *University of Pennsylvania*, USA Vol. 160.
- Barth, M. E., Cahan, S. F., Chen, L., & Venter, E. R. (2017). The economic Consequences Associated with integrated reporting quality. Earlier evidence from a mandatory setting. SSRN Electronic Journal. DOI:10.2139/ssrn.2699409
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50(2-3), 296-343. https://doi.org/10.1016/j. jacceco.2010.10.003.
- Blanco, B., Garcia Lara, J. M., & Tribo, J. A. (2015). Segment disclosure and cost of capital. *Journal of Business Finance and Accounting*, 42(3-4). DOI:10.2139/ssrn.1988151
- Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *Journal of Accounting Review*, 27(3), 323–349. http://www.jstor.org/stable/248475
- Burke, J. J. & Clark, C. E. (2016). The business case for integrated reporting: Insights from leading practitioners, regulators, and academics. *Business Horizons*, 59(3), 273-283. DOI:10.1016/j.bushor.2016.01.001
- Core, J. E. (2001). A review of the empirical disclosure literature: discussion. *Journal of Accounting and Economics*, 31(1-3), 441-456. https://doi.org/10.1016/S0165-4101(01)00036-2.
- De Villiers, C. & Sharma, U. (2017). A critical reflection on the future of financial, intellectual capital, sustainability and integrated reporting. *Journal Critical Perspectives on Accounting*, 70. https://doi.org/10.1016/j.cpa.2017.05.003
- Dhaliwal, D. S., Zhen, L. O., Tsang, A. & Yang, G. (2011). Voluntary non-financial information and the cost of equity capital: The initiation of Corporate Social Responsibility reporting. *Accounting Review*, 86(1),59-100. DOI:10.2139/ssrn.1687155
- Diamond, D. W. & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The journal of Finance,* 46(4), 1325-1359. https://doi.org/10.2307/2328861
- Easley, D. & O'hara, M. (2004). Information and the cost of capital. *The Journal of Finance*, 59(4), 1553-1583. https://doi.org/10.1111/j.1540-6261.2004.00672.x
- Easton, P. & Monahan, S. (2005). An Evaluation of Accounting-Based Measures of Expected Returns. *The Accounting Review,* 80(2), 501–538. DOI:10.2308/accr.2005.80.2.501
- García-Sánchez, I. M. & Noguera-Gámez, L. (2017). The integrated information and cost of capital, *Journal International Business Review*, 26(5), 959-975. https://doi.org/10.1016/j.ibusrev.2017.03.004.
- Gebhardt, W., Lee, C., & Swaminathan, B. (2001). Toward and Implied Cost of Capital. *Journal of Accounting Research*, 39(1), 135–176. https://doi.org/10.1111/1475-679X.00007
- Gujarati, D. N. (2003). Basic Econometrics, (4th Edition). New York, n. y.: McGraw-Hill.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate data analysis* (6th ed.). Uppersaddle River, N. J. Pearson Prentice Hall.
- Haji, A. A. & Anifowose, M. (2016). Audit committee and integrated reporting practice: does internal assurance matter? *Managerial Auditing Journal*, 31(8/9), 915-948. DOI:10.1108/MAJ-12-2015-1293

- International Integrated Reporting Council (IIRC). (2013). Value creation Background paper. Available from :http://www.theiirc.org/wg-content/uploads/2013/08/Backgraund-paper-Value-Creation.pdf (Accessed 17 may 2017).
- Isnurhadi, I., Oktarini, K. W., Meutia, I., & Mukhtaruddin, M. (2020). Effects of Stakeholder Engagement and Corporate Governance on Integrated Reporting Disclosure. *Indonesian Journal of Sustainability Accounting and Management*, 4(2), 164–173. DOI:10.28992/ijsam.v4i2.129
- Kim, O. & Verrecchia, R. E. (1994). Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics*, 17(1-2), 41-67. https://doi.org/10.1016/0165-4101(94)90004-3
- Klynveld Peat Marwick Goerdeler (KPMG). (2017). The KPMG survey of corporate responsibility reporting 2015. Available from: //https.kpmg.com/xx/en/home/insights/2015/11/kpmg-internationalsurvey-ofcorporate responsibility-reporting-2015-html (Accessed 17 may 2017).
- Kutner, L. & Olson, C. (2008). Grand theft childhood: The surprising truth about violent video games and what parents can do. New York: Simon & Schuster.
- Lee, K. W. & Yeo, G. H. H. (2016). The association between integrated reporting and firm valuation. Review of Quantitate Finance and Accounting, 47(4), 1221-1250. DOI: 10.1007/s11156-015-0536-y
- Martin, R., Yadiati, W., & Pratama, A. (2018). CSR disclosure and Company Financial Performance: Do High and Low–Profile Industry Moderate the Result?. *Indonesian Journal of Sustainability Accounting and Management*, 2(1), 15–24. https://doi.org/10.28992/ijsam.v2i1.42
- Melloni, G., Caglio, A., & Perego, P. (2017). Saying more with less? Disclosure conciseness, completeness and balance in Integrated Reports. *Journal of Accounting and Public Policy*, 36(3), 220-238. https://doi.org/10.1016/j. jaccpubpol.2017.03.001.
- Mohammad, N. (2019). Integrated Reporting Practice and Disclosure in Bangladesh's Banking Sectors. *Indonesian Journal of Sustainability Accounting and Management*, 3(2), 147-161. DOI:10.28992/ijsam.v3i2.91
- Pavlopoulos, A., Magnis, C., & latridis, G. E. (2017). Integrated reporting: Is it the last piece of the accounting disclosure puzzle? *Journal of Multinational Financial Management*, 41, 23-46. DOI: 10.1016/j. mulfin.2017.05.001
- Persakis, A. & latridis, G. E. (2016). Audit quality, investor protection and earnings management during the financial crisis of 2008: An international perspective. *Journal of International Financial Markets, Institutions and Money, 41*, 73-101.
- Rahman, M. J., Li, P., & Hasan, R. (2020). Determinants of the Adoption of Integrated Reports: An International Investigation. *Indonesian Journal of Sustainability Accounting and Management*, 4(1), 103-113. DOI: https://doi.org/10.28992/ijsam.v4i1.209
- Rodrigue, M., Magnan, M., & Cho, C. H. (2008). Is environmental governance substantive or symbolic? An Empirical investigation. *Journal of Business Ethics*, 114(1), 107–129. DOI:10.1007/s10551-012-1331-5
- Ronald, S., Ng, S., Daromes, F. E. (2019). Corporate Social Responsibility as Economic Mechanism for Creating Firm Value. Indonesian Journal of Sustainability Accounting and Management, 3(1), 22-36. https://doi.org/10.28992/ijsam.v3i1.69
- Serafeim, G. (2015). Integrated reporting and investors clientle, *Journal of Applied Corporate Finance*, 27(2), 34-51. http://dx.doi.org/10.2139/ssrn.2378899
- Sharfman, M. P. & Fernando, C. S. (2008). Environmental Risk Management and the Cost of Capital. Strategic Management Journal, 29(6), 569–592. https://doi.org/10.1002/smj.678
- Zarebski, P. & Dimovski, B. (2012). Determinants of capital structure of A-REITS and the global financial crisis. *Pacific Rim Property Research Journal*, 18(1), 3-19. DOI:10.1080/14445921.2012.11104347

Zhou, M. (2015). A replication of "Dividend Taxes and Implied Cost of Equity Capital" (Journal of Accounting Research 2005). *Public Finance Review, 43*(2), 235-255. https://doi.org/10.1177/1091142114537
Zhou, S., Simnett, R., & Green, W. (2017). Does Integrated Reporting Matter to the Capital Market?. *Abacus, 53*(1), 94-132. https://doi.org/10.1111/abac.12104

Appendix 1 Disclosure Checklist (Content Elements) of Integrated Reporting (IR)

	Content Element 3	Business Model	Maximum score	Average disclosure
13	4.13	Explicit identification of the key elements of the business model (No disclosure=0, Disclosure=1)		
14	. 4.13	A simple diagram highlighting key elements, supported by a clear explanation of the relevance of those elements to the Organization (No disclosure=0, Disclosure with diagram or narrative=1, Disclosure with both diagram and narratives=2)		
15	. 4.14	Relating and disclosing capitals with business model (No disclosure=0, Narrative disclosure only=1, Narrative with limited quantitative disclosure=2, Adequate disclosure=3)		
16	4.56	The interdependencies and trade-offs between the capitals: financial, manufactured, intellectual, human, social and relationship, and natural (No disclosure=0, Disclosure=1)		
17	· 4.13	Connection to information covered by other content elements, such as strategy, risks and opportunities, and performance (including KPIs and financial considerations, such as cost containment and revenues) (No disclosure = 0, Limited disclosure = 1, Adequate disclosure=2)		
18	4.16	Changes in Organization's strategy when, for instance, new risks and opportunities are identified or past performance is not as expected/aligning business model with changes in its external environment (No disclosure = 0, Limited disclosure = 1, Adequate disclosure=2)		
		Subtotal (Content Element 3)		
		% (Content Element 3)		
	Content Element 4	Risks and Opportunities	Maximum score	Average disclosure
19	4.25	The specific sources of risks and opportunities (No disclosure=0, Disclosing risks only=1, Disclosing both risk and opportunity=2)		
20	4.25	Possible impacts of risk and opportunity on the Organization (No disclosure=0, Disclosing risks impacts only=1, Disclosing both risk and opportunity=2)		
2	. 4.25	The specific steps being taken to mitigate or manage key risks or to create value from key opportunities (No disclosure=0, Disclosure on risk mitigation only=1, Disclosure on risk mitigation mainly with limited on opportunity=2, Adequate disclosure both on risks and opportunity=3)		
		Subtotal (Content Element 4)		
		% (Content Element 4)		
	Content Element 5	Strategy and Resources Allocation	Maximum score	Average disclosure
22	. 4.28	The Organization's short, medium, and long term strategic objectives (No disclosure=0, Partial disclosure=1, Adequate disclosure=2)		
25	4.28	The strategies it has in place, or intends to implement, to achieve those strategic objectives (No disclosure=0, Disclosure=1)		
24	. 4.28	The resource allocation plans it has to implement its strategy (No disclosure=0, Limited disclosure=1, Adequate disclosure=2)		
25	4.29	Linkage between the Organization's strategy and resource allocation plans, and Organization's business model (No disclosure=0, Partial Disclosure=1, Adequate Disclosure=2)		

26.	4.29	The extent to which environment and social considerations have been embedded into the Organization's strategy to give it a competitive advantage (No disclosure=0, Disclosure=1)		
27.	4.29	Stakeholder engagement in formulating strategies and resource plans (No disclosure =0, Identification of related stakeholders=1, Specific details on stakeholders=2)		
		Subtotal (Content Element 5)		
		& (Content Element 5)		
	Content Element 6	Performance	Maximum score	Average disclosure
28.	4.31	Quantitative indicators with respect to targets and risks and opportunities (No disclosure=0, Disclosure=1, Disclosure with trends=2)		
29.	4.31	The Organization's effects (both positive and negative) on the capitals (No disclosure=0, Mainly positive disclosure=1, Adequate disclosure=2)		
30.	4.31	The state of key stakeholder relationships and how the Organization has responded to key stakeholders' legitimate needs and interests (No disclosure=0, Limited disclosure=1, Adequate disclosure=2)		
31.	4.31	The linkages between past and current performance, and between current performance and the Organization's outlook (No disclosure=0, Limited disclosure=1, Adequate disclosure=2)		
32.	4.32	KPIs that combine financial measures with other components or monetizing certain effects on the capitals (No disclosure=0, Limited disclosure=1, Company-specific and innovative disclosure=2)		
		Subtotal (Content Element 6)		
		% (Content Element 6)		
	Content Element 7	Outlook	Maximum score	Average disclosure
33.	4.35	Organization's expectations about the external environment (No disclosure=0, General disclosure=1, Organization specific disclosure=2)		
34.	4.35	Organization's preparedness for the future uncertainties (No disclosure=0, Disclosure=1)		
35.	4.37	Potential implications on future financial and other capitals (No disclosure=0, Partial Disclosure=1, Adequate Disclosure=2)		
36.	4.38	Ways for outlook: lead indicators, KPIs or objectives, relevant information from recognized external sources, and sensitivity analyses (No disclosure=0, General disclosure=1, Organization specific disclosure=2)		
37.	4.38	Comparisons of actual performance to previously identified targets further enable evaluation of the current outlook (No disclosure=0, Disclosure=1)		
		Subtotal (Content Element 7)		
		% (Content Element 7)		

	Content Element 8	Basis of Preparation and Presentation	Maximum score	Average disclosure
38.	4.41	A description of the reporting boundary and how it has been determined (No disclosure= 0, Disclosure=1)		
39.	4.41	Frameworks and methods used to quantify or evaluate material matters (No disclosure= 0, Disclosure=1)		
40.	4.42	Brief description of the process used to identify relevant matters, evaluate their importance and narrow them down to material matters (No disclosure=0, Limited disclosure=1, Adequate disclosure=2)		
41.	4.42	Identification of the role of those charged with governance and key personnel in the identification and prioritization of material matters (No disclosure=0, Disclosure=1)		
42.	3.21	Impact of material matters on the Organization's value creation process (No disclosure=0, Limited disclosure=1, Adequate disclosure=2)		
43.	3.20	Stakeholder engagement in materiality determination (No disclosure=0, Disclosure=1)		
		Subtotal (Content Element 8)		
		% (Content Element 8)		