

# INTEGRATED REPORTING AND INTENTION TO INVEST: AN EXPERIMENTAL STUDY WITH NON-PROFESSIONAL INVESTORS

Negina Kencono Putri<sup>1\*</sup>, Sugiarto<sup>2</sup>, Amber Lumbantoruan<sup>3</sup>, Triani Arofah<sup>4</sup>

<sup>1\*</sup>Universitas Jenderal Soedirman, negina.putri@unsoed.ac.id, Indonesia

<sup>2</sup>Universitas Jenderal Soedirman, sugiarto@unsoed.ac.id, Indonesia

<sup>3</sup>Universitas Jenderal Soedirman, amber.lumbantoruan@unsoed.ac.id, Indonesia

<sup>4</sup>Universitas Jenderal Soedirman, triani.arofah@unsoed.ac.id, Indonesia

\*corresponding author

---

## ABSTRACT

**Objectives** – Integrated Reporting is a form of presentation of information to stakeholders that combines Financial Reports with Sustainability Reports. This study aims to test whether the presentation of integrated reporting by the company could influence a person's intention to invest in the capital market.

**Method** – Study carried out using an experimental method with a between-within-subject and 2x2 factorial design (Presentation: Integrated reporting & Non Integrated reporting x Format: GRI & Non GRI), using 60 students majoring Accounting, both under graduates and post graduates as participants, who are surrogates as non-professional investors.

**Findings** - The results show that there are differences in the investment decisions made by participants if the information is presented in the form of Integrated reporting consisting of Financial Reports and Sustainability Report, compared to the information that is not presented in Integrated Reporting (separate Financial Reports from the Sustainability Report). The result shows that participants give different weights to the format of the reports presented. So, it concluded that the format of the report can affect the intention of the non-professional investors to invest. This study also provides evidence that individual decisions can be influenced by the format of the Sustainability Report form, where participants give a better weight to the Sustainability Report that refers to the GRI format, compared to the Sustainability Report that does not refer to the GRI format.

**Research limitations** – This research involves non-professional investors, so that for further research, professional investors can use participants so that the results obtained can be closer to real.

**Value** – Companies need to consider the presentation of financial statements and sustainability reports in an integrated manner, with reference to the applicable standards, both accounting standards and sustainability reporting standards.

**Keywords:** Integrated Reporting, Financial, Sustainability, Global Reporting Initiatives (GRI), non-professional investors.

---

## **1. Introduction**

Financial statements are one source of information that can be used by investors to make business decisions. Companies that are able to show performance good financial statements, which are displayed through financial statements, will get a positive response from capital market participants so that encourage an increase in stock prices and firm value. In addition to financial reports, companies that have a concern for the environment are also able to attract investors' attention in a positive direction. Investors choose to invest in companies that are aware of the environment. The latest trend is the tendency of investors to appreciate companies that report sustainability reports as a form of responsibility to the environment (Delmas & Aragon-Correa, 2016; Ongsakul et al., 2020; Said et al., 2014; Shen et al., 2020). Meanwhile, most companies in Indonesia still emphasize the reports related to purely financial performance. However, discourse on climate change and responsibility Corporate social responsibility has diverted investors' attention to environmental issues. To maintain investors' interest in the company's shares, the company must response to the changes in investor behavior that places more emphasis on social and environment aspects. Good financial condition is not enough to convince investors in buying the company's stock if the growth has to sacrifice natural and social environment. It needs serious attention so that the company grows sustainable. With stakeholder demands for accountability social and environmental, the company must voluntarily disclose the report sustainability or sustainability report. The Sustainability Report was first initiated by Global Reporting Initiatives (GRI) in 1999 which presents the reporting of social, environmental and financial information integrated in one corporate reporting package. This study aims to test whether the presentation of integrated reporting by the company could influence a person's intention to invest in the capital market. The study using experimental method, with under graduate and post graduate students majoring Accounting as the participants as the proxy for non-professional investors. The results of this study indicate that the participants of this experiment give different opinions to reports that are prepared in an integrated manner, compared to reports that are prepared separately, between financial reports and sustainability reports.

## **2. Literature Review**

Economic performance is disclosed in the company's annual financial statements. In the era of the market economy accompanied by the realization of performance conditions good economy, efficient and bring big profits for the company but also need to be accompanied by ethical quality economic performance behaviour, the embodiment of good corporate social responsibility. Environmental performance is a mechanism for companies to voluntarily integrate environmental concerns into its operations and interactions with stakeholders, which exceed the responsibilities that must be carried out under the applicable legal corridors (Comyns, 2016; Kathy Rao et al., 2012; Kencono Putri et al., 2012; Perez-Batres et al., 2010; Putri & Hikmah, 2021; Tschopp & Nastanski, 2014). Along with the increasing awareness and sensitivity of stakeholder's company, the concept of social responsibility emerges and becomes part of which is inseparable from the company's survival in the future will come. Several research results related to this research topic, including, provide empirical evidence of the effect environmental performance on economic performance, including market performance (Adams, 2017; Gray,

2006; Michel et al., 2015; Shima & Fung, 2019). Companies that have a good reporting system, in the form of financial reporting and environmental performance reporting, will get a positive response from stakeholders (Feng et al., 2017; Holder-Webb et al., 2009; Park, 2015). The greater the company's role in environmental activities, the better the company's image for stakeholders. With the existence of such a positive image, it will be able to attract the attention of the stakeholders and the public using financial statements. The higher the company's environmental performance, the better performance will be the company's economy. The impact is that the market will respond positively through stock price fluctuations followed by increased stock returns companies that are relatively a reflection of the achievement of economic performance. Sustainability reporting and the triple bottom line concept are two things that cannot be separated. If the company cares about the concept of triple bottom line, the company also has full attention to sustainability reporting. Financial performance reporting procedures and sustainability reports can be carried out in an integrated manner. Integrated reports will make it easier for users to understand and make business decisions (Madein & Sholihin, 2015; Ongsakul et al., 2020; Rivière-Giordano et al., 2018; Said et al., 2014; Setiawan, 2016; Simnett & Huggins, 2015). The Triple bottom line (TBL) concept consists of 3 basic pillars or better known as the 3Ps (profit, people and planet) that must be considered in carrying out CSR activities. It aims to measure the financial, social and environmental performance of the company over a period of time in doing business. This experimental study aims to test whether the presentation of integrated reporting by the company could influence a person's intention to invest in the capital market, with under graduate and post graduate students majoring Accounting as the participants as the proxy for non-professional investors. The hypotheses of this study are as follow:

*H1: Nonprofessional investor will have higher investment intention to firm that report Integrated reporting consist of financial reporting and non GRI Sustainability reporting than firm that report financial reporting only.*

*H2: Nonprofessional investor will have higher investment intention to firm that report Integrated reporting consist of financial reporting and GRI based Sustainability reporting than firm that report financial reporting separated from GRI based Sustainability reporting.*

### **3. Research Method**

#### *3.1 Participant*

Participants in this study were postgraduate and undergraduate accounting students. For postgraduate students, students who have graduated from the capital market and advanced financial statement analysis courses are selected, while for undergraduate students, students are selected who have graduated from the capital market and advanced financial accounting courses. Students who have graduated from courses are considered to be surrogates for non-professional investors (Elliott et al., 2007). Participants were also asked to fill in demographic data to complete this experiment. There are a total of 60 research participants, consisting of 15 participants from postgraduate students and 45 participants from undergraduate students. The sixty participants were selected because they passed the manipulation check procedure which was carried out at the end of the experimental session.

#### *3.2 Experimental Design*

Study carried out using an online experimental method with a between-within-subject and 2x2 factorial design (Presentation: Integrated reporting & Non-integrated reporting x Format: GRI & Non GRI) showed in Table 1.

Table 1. Experimental Design

Treatment	Non-Integrated Reporting	Integrated Reporting
Non GRI	Financial Information only (1)	Integrated reporting consists of financial reporting and non GRI Sustainability reporting (2)
GRI	Financial reporting separated from GRI based Sustainability reporting (3)	Integrated reporting consists of financial reporting and GRI based Sustainability reporting (4)

Experiment asked participant to choose investment decision intention option, with four informed choices accompanying decision making. Both options were intention to invest, on a differential semantic scale of 1-10 (one for low intention to 10 for high intention to invest). This study also uses check manipulation as one of the procedures that must be passed by the participants.

### 3.3 Variables

Independent variable in this study consists of report format (integrated and non-integrated reporting) and sustainability report reference (GRI and non GRI). Dependent variable consisted of investment intention. Measurement of investment intention is based on result of case study completion by participant in low investment intention (score 1) until high investment intention (score 10).

### 3.4 Experiment Instrument

Instrument adopted from previous research that has been modified (Madein & Sholihin, 2015; Rivière-Giordano et al., 2018). Experiment instrument was conducted online for about 20 minutes, to avoid the threat of maturation and mortality of participants in working on the experimental material. The threat of selection internal validity also avoided by using an experimental group that has relatively the same experience which is affect their intention to invest. History is avoided by providing experimental material in sequence, with no breaks in all four experimental parts. The experiment divided in to four parts. The **first** part consists of information showed in the form of a non-integrated report consisting of only financial reports, which are in accordance with applicable financial standards. The **second** part consists of information showed in the form of an integrated report consisting of financial reports that comply with applicable financial standards and sustainability reports that describe environmental performance, which do not refer to GRI standards. The **third** part consists of information showed in the form of financial reports that are in accordance with applicable financial standards, which are separate from sustainability reports that describe environmental performance, which refer to

GRI standards. The **fourth** part consists of information showed in the form an integrated report consisting of financial reports that are in accordance with applicable financial standards and integrated with sustainability reports that describe environmental performance, which refers to GRI standards. In the experiment process, participants are not allowed to discuss the decision that will be made with other participants. Experiment finished with brief explanation about the aim of the study.

### 3.5 Data Analysis

Chi-square test was used to test the differences in decisions made by participants. When significant p-value was obtained in testing among two treatments, means that participant fill different information presentation they received, that affect their intention to invest. Test was also done on significant result of ANOVA test, that if it is not significantly different between GRI and non GRI Sustainability reporting formats, it indicates that both formats have same influence (have same weight) on intention to invest.

## 4. Result

Participants in this study were postgraduate and undergraduate accounting students. There are a total of 60 research participants, consisting of 15 participants from postgraduate students and 45 participants from undergraduate students. The results of statistical testing are shown in Table 2. and Table 3.

Table 2. ANOVA Analysis of Non GRI based Sustainability Report and GRI based Sustainability Report

Treatment	F	Sig.
Non GRI_Non integrated and Integrated reporting	.224	.006
GRI_Non integrated and Integrated reporting	.312	.000

The first hypothesis in this study states that nonprofessional investor will have higher investment intention to firm that report Integrated reporting consist of financial reporting and non GRI Sustainability reporting than firm that report financial reporting only. Result of statistical test for this hypothesis showed in ANOVA calculation with significance of 0.006 (Table 2.). The significance value is below 0.05, so it can be concluded that there are significant differences in the decision which is based on a report that contain information about Integrated reporting consist of financial reporting and non GRI Sustainability reporting with the information that only contain financial information. Participants in this study have a higher intention to make investment when the information provides by the company presented in an integrated reporting than a single financial reporting only. It indicated by an increased level of intention to invest in the range of 1-10. It means that the test indicate that participants were influenced by the information provide and presented by the firm.

Meanwhile, hypothesis 2 states that nonprofessional investor will have higher investment intention to firm that report Integrated reporting consist of financial reporting and GRI based Sustainability reporting than firm that report financial reporting separated from GRI based Sustainability reporting. Result of statistical test for this hypothesis is showed in ANOVA calculation with significance of 0.000 (Table 2). The significance value is below 0.05, so it can be concluded that there are significant differences in the decision which is based on a report that contain information about Integrated reporting consist of financial

reporting and GRI based Sustainability reporting with the information that contain information about Financial that separated from GRI based Sustainability reporting. It indicated by an increased level of intention to invest in the range of 1-10. It means that the test indicate that participants were influenced by the information provide and presented by the firm.

Table 3. Result of Chi Square Statistical Test

Treatment	Non-Integrated Reporting		Integrated Reporting	
	Low intention to invest (1-5)	High intention to invest (6-10)	Low intention to invest (1-5)	High intention to invest (6-10)
<b>Panel A</b>				
Non GRI	40 (66.67%)	20 (33.33%)	10 (16.67%)	50 (83.33%)
Chi-Square Statistical Test 1: Chi-Square and p-value		2.168 (0.083)		4.412 (0.043)
<b>Panel B</b>				
GRI	45 (75%)	15 (25%)	20 (66.67%)	40 (33.33%)
Chi-Square Statistical Test 1: Chi-Square and p-value		7.216 (0.014)		10.215 (0.003)

Profit is a basic goal in every business activity. Company activities to get the highest profit by increasing productivity and implementing cost efficiency. Increasing productivity by improving work management starting from simplifying processes, reducing inefficient activities, reducing production process time, and building long-term relationships with the stakeholders themselves (Simnett & Huggins, 2015; Thomas et al., 2016). The community is a valuable stakeholder for the company, because community support is needed for the existence, continuity of life and progress of the company. Companies need to be responsible for providing benefits and impacting the community. To ensure the continuity of its business, the company cannot only pay attention to the interests of getting profit, but the company must also pay attention to the condition of the community, such as holding activities that support and assist the needs of the community. The company's concern for the condition of society can ultimately add to a good image of the company in the media. Therefore, it is important for companies to establish good relationships with the community. These well-established relationships not only bring benefits to the company but to create mutual benefits for both the company and its public (Holder-Webb et al., 2009; Said et al., 2014). The environment is something that is bound and cannot be separated from all aspects of human life. Profit or profit which is the main thing in the business world makes companies as industrial players only concerned with profit without making any effort to preserve the environment. As a result, environmental damage occurs in various places caused by irresponsible companies such as pollution, water pollution, to climate change. In activities to preserve the environment, business actors can reduce the excessive use of natural resources by utilizing environmentally friendly technology. By preserving the environment, the company will get more benefits, most importantly in terms of health, comfort, in addition to the availability of resources that are more sustainable (Delmas & Aragon-Correa, 2016; Holder-Webb et al., 2009).

Due to the many demands from stakeholders, there is a desire to create an Integrated Reporting standard. According to the International Integrated Reporting Committee (IIRC), an Integrated Report is a concise communication of how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to value creation in the short, medium and long term. Interestingly, quite a number of public companies in Indonesia have published annual reports that combine financial and non-financial information. And one of the non-financial information is a report related to environmental performance (Del Baldo, 2017; Delmas & Aragon-Correa, 2016; Feng et al., 2017; Holder-Webb et al., 2009; Park, 2015; Simnett & Huggins, 2015; Thomas et al., 2016). The result of this study support the previous study, that integrated reporting has the ability to attract investors' positive attention, because they focuses on long-term information and also provides financial and non-financial information, which means management can monitor and control the company's current operations and provide stakeholders with information about the company's strategy (Kathy Rao et al., 2012; Pérez et al., 2015; Putri & Hikmah, 2021). By integrating financial and non-financial information, integrated reporting provides insight that companies are not only focused on short-term and medium-term/long-term profit figures, but also on sustainable decisions and long-term goals so that stakeholders can better measure the performance of a company (Del Baldo, 2017; Delmas & Aragon-Correa, 2016; Holder-Webb et al., 2009; Lee & Sweeney, 2015; Said et al., 2014; Simnett & Huggins, 2015; Thomas et al., 2016).

## 5. Conclusion

This study aims to test whether the presentation of integrated reporting by the company could influence a person's intention to invest in the capital market. The study using experimental method, with under graduate and post graduate students majoring Accounting as the participants as the proxy for non-professional investors. The results show that there are differences in the investment decisions made by participants if the information is presented in the form of Integrated reporting consisting of Financial Reports and Sustainability Report, compared to the information that is not presented in Integrated Reporting (separate Financial Reports from the Sustainability Report). The result shows that participants give different weights to the format of the reports presented. It concluded that the format of the report can affect the intention of the non-professional investors to invest. This study also provides evidence that individual decisions can be influenced by the format of the Sustainability report form, where participants give a better weight to the Sustainability report that refers to the GRI format, compared to the Sustainability report that does not refer to the GRI format. So, companies need to consider the presentation of financial statements and sustainability reports in an integrated manner, with reference to the applicable standards, both accounting standards and sustainability reporting standards. However, this research involves non-professional investors, so that for further research, professional investors can use participants so that the results obtained can be closer to real.

## References

- Adams, C. A. (2017). Conceptualising the contemporary corporate value creation process. *Accounting, Auditing and Accountability Journal*, 30(4), 906–931. <https://doi.org/10.1108/AAAJ-04-2016-2529>

- Comyns, B. (2016). Determinants of GHG Reporting: An Analysis of Global Oil and Gas Companies. *Journal of Business Ethics*, 136(2), 349–369.
- Del Baldo, M. (2017). The implementation of integrating reporting <IR> in SMEs: Insights from a pioneering experience in Italy. *Meditari Accountancy Research*, 25(4), 505–532. <https://doi.org/10.1108/MEDAR-11-2016-0094>
- Delmas, M. A., & Aragon-Correa, J. A. (2016). Field Experiments in Corporate Sustainability Research: Testing Strategies for Behavior Change in Markets and Organizations. *Organization and Environment*, 29(4), 391–400. <https://doi.org/10.1177/1086026616677827>
- Elliott, W. B., Hodge, F. D., Kennedy, J. J., & Pronk, M. (2007). Are M.B.A. students a good proxy for nonprofessional investors? *Accounting Review*, 82(1), 139–168. <https://doi.org/10.2308/accr.2007.82.1.139>
- Feng, T., Cummings, L., & Tweedie, D. (2017). Exploring integrated thinking in integrated reporting – an exploratory study in Australia. *Journal of Intellectual Capital*, 18(2), 330–353. <https://doi.org/10.1108/JIC-06-2016-0068>
- Gray, R. (2006). Social, environmental and sustainability reporting and organisational value creation?: Whose value? Whose creation? *Accounting, Auditing and Accountability Journal*, 19(6), 793–819. <https://doi.org/10.1108/09513570610709872>
- Holder-Webb, L., Cohen, J. R., Nath, L., & Wood, D. (2009). The supply of corporate social responsibility disclosures among U.S. firms. *Journal of Business Ethics*, 84(4), 497–527. <https://doi.org/10.1007/s10551-008-9721-4>
- Kathy Rao, K., Tilt, C. A., & Lester, L. H. (2012). Corporate governance and environmental reporting: An Australian study. *Corporate Governance: The International Journal of Business in Society*, 12(2), 143–163. <https://doi.org/10.1108/14720701211214052>
- Kencono Putri, N., Baridwan, Z., Supriyadi, S., & Nahartyo, E. (2012). Experimental Test of Framing and Non-Professional Investor'S Decision: Study of Risk Information in Ifrs No. 7. *Journal of Economics, Business, and Accountancy / Ventura*, 15(2), 305. <https://doi.org/10.14414/jebav.v15i2.82>
- Lee, W. E., & Sweeney, J. T. (2015). Use of Discretionary Environmental Accounting Narratives to Influence Stakeholders: The Case of Jurors' Award Assessments. *Journal of Business Ethics*, 129(3), 673–688. <https://doi.org/10.1007/s10551-014-2191-y>
- Madein, A., & Sholihin, M. (2015). The impact of social and environmental information on managers' decisions: Experimental evidence from Indonesia. *Asian Review of Accounting*, 23(2), 156–169. <https://doi.org/10.1108/ARA-11-2013-0074>
- Michel, C., Stacey, L., Sylvie, B., & Francesco, G. (2015). Determinants and Impacts of Sustainability Disclosure ☆. In *Sustainability Disclosure: State of the Art and New Directions* (Vol. 30, pp. 25–79). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1479-351220150000030002>



- Ongsakul, V., Jiraporn, N., & Jiraporn, P. (2020). Exploring how independent directors view CSR inequality using a quasi-natural experiment. *Corporate Governance (Bingley)*, 20(6), 1159–1172. <https://doi.org/10.1108/CG-03-2020-0086>
- Park, B. D. Y. (2015). *Investor Interest in Nonfinancial Information : January*, 1–4.
- Perez-Batres, L. A., Miller, V. V, & Pisani, M. J. (2010). CSR, Sustainability and the Meaning of Global Reporting for Latin American Corporations. *Journal of Business Ethics*, 91, 193–209.
- Pérez, A., García de los Salmones, M. del M., & López, C. (2015). Corporate Reputation in The Spanish Context: An Interaction Between Reporting to Stakeholders and Industry. *Journal of Business Ethics*, 129(3), 733–746. <https://doi.org/10.1007/s10551-014-2199-3>
- Putri, N. K., & Hikmah, E. M. (2021). Kinerja Lingkungan dan Kinerja Saham Perusahaan Publik di Indonesia. *Jurnal Aplikasi Bisnis Dan Manajemen (JABM)*, 7(1 SE-Articles), 168. <https://doi.org/10.17358/jabm.7.1.168>
- Rivière-Giordano, G., Giordano-Spring, S., & Cho, C. H. (2018). Does the level of assurance statement on environmental disclosure affect investor assessment?: An experimental study. *Sustainability Accounting, Management and Policy Journal*, 9(3), 336–360. <https://doi.org/10.1108/SAMPJ-03-2018-0054>
- Said, R. M., Sulaiman, M., & Ahmad, N. N. N. (2014). Environmental information usefulness to stakeholders: Empirical evidence from Malaysia. *Social Responsibility Journal*, 10(2), 348–363. <https://doi.org/10.1108/SRJ-10-2012-0131>
- Setiawan, A. (2016). Integrated Reporting: Are Indonesian Companies Ready to Do It? *Asian Journal of Accounting Research*, 1(2), 62–70. <https://doi.org/10.1108/ajar-2016-01-02-b004>
- Shen, X., Ho, K. C., Yang, L., & Wang, L. F. S. (2020). Corporate social responsibility, market reaction and accounting conservatism. *Kybernetes*, 71903199. <https://doi.org/10.1108/K-01-2020-0043>
- Shima, K., & Fung, S. (2019). Voluntary disclosure of environmental performance after regulatory change: Evidence from the utility industry. *Meditari Accountancy Research*, 27(2), 287–324. <https://doi.org/10.1108/MEDAR-01-2018-0265>
- Simnett, R., & Huggins, A. L. (2015). Integrated reporting and assurance: Where can research add value? *Sustainability Accounting, Management and Policy Journal*, 6(1), 29–53. <https://doi.org/10.1108/SAMPJ-09-2014-0053>
- Thomas, R. W., Fugate, B. S., Robinson, J. L., & Taşcıoğlu, M. (2016). The impact of environmental and social sustainability practices on sourcing behavior. *International Journal of Physical Distribution and Logistics Management*, 46(5), 469–491. <https://doi.org/10.1108/IJPDLM-02-2015-0041>
- Tschopp, D., & Nastanski, M. (2014). The Harmonization and Convergence of Corporate Social Responsibility Reporting Standards. *Journal of Business Ethics*, 125(1), 147–162.