

Research Article

Sustained or Not: Does Intellectual Capital Strengthen CEOs and Independent Commissioners on the Sustainability of Their Companies?

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Abstract.

This research aims to investigate the relationship between CEO characteristics in the form of educational background and independent commissioners on sustainability reports with intellectual capital as a moderating variable. The population selected in this study were non-financial companies included in the LQ45 index for the 2018-2022 period, and 12 samples were selected based on the purposive sampling method. For the hypothetical analysis in this research, panel data regression analysis and moderate regression analysis (MRA) with Eviews 12 were used. This research shows that the characteristics of the CEO and independent commissioners have a simultaneous and partial effect on sustainability reports. However, CEO characteristics that are moderated by intellectual capital have a negative influence on the sustainability report. In contrast, independent commissioners positively influence the sustainability report after being moderated by intellectual capital. This research contributes to the application of stakeholder theory, resource-based theory, and agency theory. The novelty of this study is the empirical finding that CEO characteristics and independent commissioners can encourage the sustainability report. However, the moderated effects of intellectual capital differ for both CEO characteristics and independent commissioners on sustainability reports. This research also has several implications for shareholders and stakeholders; one of them is for investors that companies with CEOs with economic and business educational backgrounds and a high proportion of independent commissioners have a sustainable business strategy that can serve as an indicator for long-term investment.

Keywords: characteristic CEO, independent commissioner, intellectual capital, sustainability report

1. Introduction

A sustainability report is a form of the company's seriousness in running its business. Companies that do not have a strategy to carry out operational activities sustainably tend not to be able to bounce back due to economic dynamics [1]. This statement is supported by the meaning of "economy" in which companies as economic actors have a role as a supply party by using limited resources to meet unlimited demand [2]. In

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this regard, it is indicated that stakeholders have higher expectations for the company, especially due to the economic dynamics.

This economic dynamic arises due to limited natural resources, which are one of the main factors for companies' sustainability [3, 4]. Apart from that, the socio-economic impact of the company's operational activities has increasingly serious implications for the community, who are part of the stakeholders [5]. In response, stakeholders are increasingly putting pressure on companies to prioritize the interests of shareholders and benefit stakeholders [6].

Companies must shift their focus from optimizing profits to increasing shareholder value to value creation for stakeholders [7]. Companies can take action to meet these expectations and pressures by carrying out operational activities that can meet current needs without sacrificing the future capabilities of the next generation [8, 9]. In its implementation, companies must include environmental, social, and governance factors to assess their sustainability performance [7, 10]. However [11] revealed that more than the company's efforts to fulfill these expectations are needed through actions and communicating them.

Activities promoting corporate sustainability must be measured, reported, and guaranteed. A company can only make changes for the better when it can present quality and reliable information [12, 13]. Companies need to communicate with stakeholders regarding the sustainability strategies they have implemented and planned [14]. On the other hand, stakeholders tend to want comprehensive company information regarding business sustainability [15]. To fill this gap, up to now, there are quite a lot of guidelines related to reporting on corporate sustainability activities such as GRI G4, POJK 51 of 2017, TCFD framework, up to the one that was just released on June 26, 2023, and will be implemented in January 2025, namely, the IFRS sustainability disclosure standard S1 and S2 [16]. Unfortunately, Indonesia is a country with companies that have a low level of social responsibility compliance. This is reinforced by Indonesia's position as a country ranked 75th with a score of 70.16 in sustainability development goals performance [17].

Yet, in Indonesia, public companies are required to report sustainability reports, and generally, they use the GRI G4 guidelines [18, 19]. In its preparation, the internal function of corporate governance has a major role. [20] explained that the CEO, as the main leader of a company, is a determining factor in the direction of company policy in planning and determining company sustainability policies. Apart from that, independent commissioners, dubbed as stakeholder representatives, tend to advise directors to take strategic, operational actions to generate profit for shareholders and stakeholders [21]. Particularly through stakeholder theory, managerial parties are obligated to meet

stakeholders' expectations by carrying out activities that are beneficial to stakeholders and reporting the results of these activities [22].

These two functions in corporate governance have the power and capability to drive company strategy sustainably [23, 24]. They can manage, develop, and utilize resources to achieve the company's sustainability goals [25, 26]. In particular, CEOs who have an educational background in economics and business tend to be more concerned about the long-term business sustainability of the companies they work for [27]. Apart from that, Su et al., (2022) explained that CEOs need to have visionary principles for business sustainability so that they need to implement sustainable operational activities. On the other hand, independent commissioners have a main role in conveying the voices of minority shareholders and stakeholders [28]. Due to this, they tend to be more conservative in the company's strategic direction, especially for the benefit of stakeholders [29].

However, several studies have contradictory results from the studies above. [30] found that CEOs who studied specifically economics and business tend to be more "profit-oriented" so they have the potential to minimize costs for sustainability activities, especially in environmental aspects. Even the proportion of independent commissioners does not guarantee the achievement of corporate sustainability due to the potential for agency conflicts that occur in corporate governance [31]. This research gap indicates that the characteristics of CEO education and the proportion of commissioners have implications for the disclosure of sustainability reports.

Apart from that, based on the literature review results above, this study tries to test whether the management, development, and utilization of resources owned by companies can support these two governance functions. This review examines whether the CEO and the board of commissioners have the power and capability to determine company policies that are not spared by optimizing their resources. In particular, [32, 33] explain that companies need to create value to strengthen company sustainability. One method for measuring value creation by a company is through intellectual capital management [34]. This research indicates that CEOs and independent commissioners can produce quality sustainability reports because they utilize the intellectual capital they have developed as a strategy to achieve corporate sustainability goals. Therefore, the novelty of this study is to test whether intellectual capital can strengthen the relationship between a CEO's education and the proportion of independent commissioners to produce quality sustainability hassles.

2. Literatur review

2.1. Stakeholder theory

Stakeholder theory emphasizes the implications of the companies, especially their management for stakeholders [35, 36]. In particular, [37, 38] revealed that top managers should not only focus on the company's financial performance goals but also the company's benefits to stakeholders. [39] explained that one of the efforts of top managers to benefit stakeholders is to carry out social responsibility activities. Apart from that, they also need to disclose these activities through sustainability reports as a means of communication with stakeholders so that they can find out the details of the company's benefits in economic, social, and environmental aspects [40, 41, 42]. Disclosure of these three aspects in a sustainability report can help stakeholders monitor top managers' seriousness in carrying out continuous or sustainable benefits [43]. Therefore, through stakeholder theory, top managers have an obligation to carry out sustainable benefits and communicate them to stakeholders.

2.2. Resource based theory

According to [44] the resource-based theory is a theory that explains the implications of resources that have capabilities and competitive advantages for a company. The resources owned by a company can include tangible and intangible assets that are owned, developed, and used [45, 46]. [47] explains that these resources can be added value (value added) for companies that are placed in the company's strategic plans and policies. Intellectual capital is one of the value-added resources discussed in this theory. [48, 49] state that intellectual capital is part of a company's resources with potential value for designing and implementing company policies in a competitive industrial environment. In this regard, through resource-based theory, the management and use of resources such as superior and competitive intellectual capital by a company can be useful for designing and implementing the company's strategic policies.

2.3. Agency theory

Agency theory underlies the implications of the relationship between principals and agents [31]. The relationship between the principal and the agent has the potential to give rise to agency conflicts due to differences in interests between the principal and the agent and the incentives held by the agent [50, 51]. CEOs are agents who play a

role in company management and potentially have incentives to maximize their interests [52]. When CEOs have incentives to maximize personal interests, such as bonuses, they can carry out strategic policies that are “profit-maximization” [53].

Strategic policies focusing on profit maximization tend to prioritize improving the company’s financial performance rather than increasing social responsibility quality [54]. This is because increasing the activities and quality of corporate social responsibility requires costs such as CSR costs and agency costs. When companies sacrifice costs to support CSR activities, this can affect the quality of sustainability report disclosures [55]. In this regard, through agency theory, CEOs as potential agents tend to optimize costs for profit maximization, so they might minimize CSR costs, which can reduce the quality of sustainability reports.

2.4. Sustainability Report

Sustainability reports are a form of a company’s seriousness in running a business [56]. According to [57, 58], sustainability reports are a company’s communication media for managing the environment, social, and economy as well as the impact of operating activities on stakeholders. These three aspects are important elements of the company’s operational sustainability, so companies need strategic policies that support these aspects and will affect the quality of reporting from sustainability reports [57].

In practice, the standards for preparing global sustainability reports have been formulated by the Global Sustainability Standards Board, which is named the Global Reporting Initiative (GRI) Standards G4. GRI G4 consists of 91 indicators that contain company activities in environmental, social, and economic aspects. The sustainability report can be formulated as follows.

$$CSRDI_j = \frac{\sum X_{ij}}{N_j}$$

Keterangan:

$CSRDI_j$ = Corporate Social Responsibility Indeks j

X_{ij} = Dummy Variable, 1 for items disclosed and 0 for items not disclosed

N_j = Number of disclosure items on GRI

2.5. CEO characteristic and sustainability report

The Chief Executive Officer (CEO) is major in making corporate strategic policy decisions [59]. He leads stakeholders, especially in implementing the company’s benefits [60]. The

benefits carried out by companies are generally carried out through social responsibility activities and sustainable operational activities, which are strengthened by disclosure through sustainability reports [59, 61]. [62] found that CEOs have characteristics that affect the disclosure quality of these activities. [27] support this statement by explaining that CEOs with a characteristic economic and business educational background tend to drive corporate strategy sustainably and communicate it well to stakeholders. [37] also explained that through stakeholder theory, a CEO who is able to provide benefits to stakeholders can have a positive impact on the sustainability of his company's business. Apart from that, [63] explain the ability to manage a company comprehensively and sustainably as a basic knowledge in the educational curriculum in the economics and finance environment. In this regard, this research used the nominal scale as 1 for CEOs with an educational background in economics and business and 0 otherwise following [27, 63]. Thus, this research create hypothesis that:

H₁: CEO Characteristic positively affected the Sustainability Report

2.6. Independent Commissioner and Sustainability Report

[64] explain that independent commissioners are parties who do not have share ownership and/or affiliation in the company where they hold office and are representatives of minority shareholders. In this regard, independent commissioners are not bound by conflicts of interest that could affect the objectivity and integrity of the implementation of their duties and functions [65]. Having the role of representing minority shareholders (the public), independent commissioners tend to be more conservative in disclosing company benefits [66]. The community as part of the stakeholders is one of the priorities for independent commissioners to carry out their duties and functions so that they strive to optimize the company's benefits for these stakeholders [67]. This is also supported by stakeholder theory which explains that companies need to provide benefits to stakeholders [38]. This research follows [66] proxy which used the proportion of independent commissioner that showed the proportion of independent commissioners on the board of commissioners influences the quality of the sustainability report. Thus, this research create hypothesis that:

H₂: Independent Commissioner positively affected the Sustainability Report

2.7. Intellectual Capital as Moderating Variable

Companies can operate when they have the resources to support the planning and implementation of their operational activities [48]. [68] explains that the resources owned by the company are the company's initial capital so that it can survive in its industrial environment. A company's survival occurs when it can manage, develop, and utilize resources such as its intellectual capital properly to become added value (value added) for the company. This is supported by [69, 70] which supports resource-based theory with found that companies with quality intellectual capital tend to be more innovative, efficient, and resilient to industrial conditions. Resources such as intellectual capital consist of capital employed efficiency (CEE), human capital efficiency (HCE), structural capital efficiency (SCE), resource and development efficiency (RDE), and resource commercial efficiency (RCE). This research uses these five elements which were developed by [71] VAIC (Value Added Intellectual Coefficient) elements and formulated as below.

$$VAIC_m = CEE_m + HCE_m + SCE_m + RDE_m + RCE_m$$

Notes:

$$CEE_m = \frac{VA_m}{CE}$$

$$HCE_m = \frac{VA_m}{HC}$$

$$SCE_m = \frac{(VA_m - HC - R\&D \text{ expense} - \text{Marketing and advertising expense})}{VA_m}$$

$$RDE_m = \frac{R\&D \text{ expense}}{VA_m}$$

$$RCE_m = \frac{\text{Marketing and advertising expense}}{VA_m}$$

$VA_m = \text{Operating profit} + \text{Depreciation} + \text{Amortization} + \text{Employees' salaries and wages} + \text{Marketing and advertising expenses} + \text{R\&D expenses}$

$CE = \text{Total assets} - \text{Total liabilities}$

$HC = \text{Employees' salaries and wages}$

CEOs and independent commissioners who have a major role in the company's sustainability are part of intellectual capital [72]. This is supported by [73], who found that CEOs with managerial skills supported by economic and business educational backgrounds are an intangible asset that is value added for the company. Meanwhile, independent commissioners can encourage company value added by implementing their functions [74]. Apart from that, [75, 76] found that the company's intellectual capital is one of the factors in the quality of sustainability report disclosure. This arises because disclosure of a quality sustainability report requires resources that support the activities contained in the sustainability report [76]. However, can intellectual capital moderate

the relationship between the characteristics of CEOs and independent commissioners on sustainability report disclosure?

[75] explains that managing intellectual capital requires quite large costs. Apart from that, [77] found that the quality of sustainability report disclosures is influenced by the amount of managerial costs incurred to carry out CSR activities. CEOs tend to be more profit-oriented because they have incentives to get bonuses and good use of intellectual capital can improve company performance [78]. This is also supported by agency theory where managers can prioritize their personal interests, such as prioritizing incentives (bonuses). This indicates that the CEO as a top manager has the potential to allocate more costs in managing intellectual capital than in CSR programs. Therefore, this research formulates the following hypothesis:

H₃: Intellectual Capital weaken the positive affect of CEO Characteristic on the Sustainability Report

[66] explained through stakeholder theory, independent commissioners have an important role in encouraging programs for the benefit of stakeholders which is the main point of the sustainability report. [67] found that independent commissioners have a role in monitoring and providing direction to managers to improve the company's usefulness and company quality from various aspects such as supervision in the management and use of intellectual capital. Therefore, this research formulates the following hypothesis:

H₄: Intellectual Capital strengthen the positive affect of Independent Commissioner on the Sustainability Report

3. Material and Methods

The population used in this research are non-financial companies that are included in the LQ 45 index in 2018 - 2022. The selection of the population of non-financial LQ45 companies is to capture the environmental economic behavior of non-financial companies which have more close impacts on their business operations such as environmental pollution and material losses for the surrounding community. Apart from that, financial sector companies have a better level of sustainability reporting than the non-financial sector in the SRI-KEHATI ESG Awards 2023 [79]. To obtain a representative sample, this research uses a purposive sampling technique with two criteria, namely, 1) non-financial companies that are consistently included in the index LQ 45 in 2018 – 2022; and 2) companies report annual reports and sustainability reports regularly in 2018 - 2022. Based on this sampling, 12 companies or 60 observation data were collected during 2018 - 2022 which will be analyzed using descriptive statistics. The

data analysis technique used is descriptive and verification analysis using statistic descriptive and panel data regression analysis (pooled data) via Eviews 12. The data regression has gone through classical assumption tests as a prerequisite for panel data regression analysis, which includes normality, multicollinearity, heteroscedasticity and autocorrelation tests.

4. Result

The results of the calculation of the descriptive analysis of 12 samples of non-financial companies that are included in the LQ 45 of the Indonesia Stock Exchange for the period 2018 – 2022 can be seen in table 1.

TABLE 1: Variabel Statistic Descriptive.

	SR	CEO	KI	IC
Mean	0.58	0.70	0.42	17.02
Median	0.59	1.00	0.35	10.07
Maximum	0.97	1.00	0.83	100.54
Minimum	0.33	0.00	0.20	3.14
Std. Dev	0.16	0.46	0.16	19.09
Observations	60	60	60	60

Source: Author's own work

The sustainability report variables, CEO characteristics, independent commissioners, and intellectual capital have mean values greater than the standard deviation or small data spread. This shows that the variable data in this study is grouped, and the mean value represents the sample. The results of the classical assumption test show that the data is normally distributed, and multicollinearity and heteroscedasticity do not occur (Appendix 1).

In determining the regression model, this study went through two stages, namely the Chow and Hausman tests, which showed that the fixed effect model was the most appropriate for estimating panel data (Appendix 2). The results of the Chow test and the Hausman test between the independent variables CEO characteristics (X_1) and independent commissioners (X_2) and the dependent variable sustainability report (Y), either without or with moderation of intellectual capital (Z), show the fixed effect model chosen to estimate the panel data.

The results of panel data regression analysis using the fixed effect model without moderation are shown in table 2 with the panel data regression equation as follows:

$$SR = 0.2662 + 0.4731CEO + 0.7169KI + e \text{ (1)}$$

Dependent Variable: SR
 Method: Panel Least Squares
 Date: 09/05/23 Time: 23:40
 Sample: 2018 2022
 Periods included: 5
 Cross-sections included: 12
 Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.266162	0.114552	2.323492	0.0246
CEO	0.473117	0.154603	2.346323	0.0126
KI	0.716886	0.269633	2.658741	0.0043

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.499100	Mean dependent var	0.581045
Adjusted R-squared	0.357541	S.D. dependent var	0.158494
S.E. of regression	0.127038	Akaike info criterion	-1.087695
Sum squared resid	0.742380	Schwarz criterion	-0.599014
Log likelihood	46.63084	Hannan-Quinn criter.	-0.896545
F-statistic	3.525747	Durbin-Watson stat	1.263238
Prob(F-statistic)	0.000763		

Figure 1: Fixed Effect Model (Without Moderating). Source: Author’s own work.

Note:

SR = Sustainability report

CEO = CEO Charateristic

KI = Independent Commissioner

e = error term

The results of the simultaneous test of the characteristics of the CEO and independent commissioners have a significant effect on the sustainability report of non-financial companies which are consistently included in the LQ45 index for the period 2018 - 2022. Partially, the characteristics of the CEO and independent commissioners have a significant positive effect on the sustainability report of non-financial companies which consistently included in the LQ45 index for the period 2018 - 2022. The fixed effect model without moderation shows an Adjusted R-Squared value of 35.8%, which means that the characteristics of the CEO and independent commissioners have an influence of 35.8% on the sustainability report.

The results of panel data regression analysis using a fixed effect model with moderation are shown in table 3 with the panel data regression equation as follows:

Dependent Variable: SR
 Method: Panel Least Squares
 Date: 09/05/23 Time: 23:43
 Sample: 2018 2022
 Periods included: 5
 Cross-sections included: 12
 Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.174523	0.144359	1.208952	0.2333
CEO	0.095159	0.087791	1.083924	0.2844
KI	0.435568	0.316446	1.376438	0.0295
IC	0.012406	0.009373	1.323587	0.1926
CEO*IC	-0.017053	0.007651	-2.228793	0.0311
KI*IC	0.026695	0.014402	1.853535	0.0468

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.672619	Mean dependent var	0.581045
Adjusted R-squared	0.622013	S.D. dependent var	0.158494
S.E. of regression	0.112528	Akaike info criterion	-1.297704
Sum squared resid	0.544492	Schwarz criterion	-0.704306
Log likelihood	55.93111	Hannan-Quinn criter.	-1.065593
F-statistic	4.627809	Durbin-Watson stat	1.353243
Prob(F-statistic)	0.000030		

Figure 2: Fixed Effect Model (With Moderating). Source: Author’s own work.

$$SR = 0.2662 + 0.4731CEO + 0.7169KI + 0.01240IC - 0.0170CEO*IC + 0.0266KI*IC + e$$

(2)

Note:

SR = Sustainability report

CEO = CEO Charateristic

KI = Independent Commissioner

IC = Intellectual Capital

CEO*IC = Interaction between CEO Characteristics and Intellectual Capital

KI*IC = Interaction between Independent Commissioner and Intellectual Capital

e = error term

Simultaneous test results of the characteristics of CEOs and independent commissioners with the moderating variable intellectual capital have a significant effect on the sustainability reports of non-financial companies which are consistently included

in the LQ45 index for the period 2018 – 2022. Partially, the characteristics of CEOs who have been moderated by intellectual capital have a significant negative effect on sustainability reports. Meanwhile, after being moderated by intellectual capital, the independent commissioners partially still have a significant positive effect on the sustainability report. The fixed effect model with moderation shows an increase in the Adjusted R-Squared value to 62.2%, which means that the characteristics of the CEO and independent commissioners have an effect of 62.2% on the sustainability report with intellectual capital as the moderating variable.

5. Discussion

The mean CEO characteristic value of 0.70 is greater than the standard deviation value of 0.46, indicating that the CEO characteristics in the observation data positively influence the quality of the sustainability report by 70%. This shows that CEO characteristics in the form of education in economics and business dominate in determining the company's strategic planning and policy decisions regarding sustainability reports. 42 of the 60 observational data on CEO characteristics in this study have an educational background in economics and business, indicating that the CEO's education encourages the quality of sustainability report disclosures. The results of this research are supported by [63], who explains that CEOs with an educational background in economics and business can comprehensively sustain company management because they have basic knowledge contained in business strategy on their educational curriculum. In this regard, a CEO with knowledge in the fields of economics and business can drive the company's strategy sustainably and communicate it well to stakeholders [27]. Apart from that, these results support stakeholder theory regarding the role of CEO for stakeholders.

The independent commissioner in this study has a mean value of 0.42, which is greater than the standard deviation value of 0.16, indicating that the independent commissioner on the observation data has a positive effect on the quality of the sustainability report by only 42%. This indicates that the proportion of independent commissioners in the observation data of this study is less than that of non-independent commissioners. 38 of the 60 independent commissioners' observational data in this study have a smaller proportion of independent commissioners than non-independent commissioners, indicating that independent commissioners are less involved in the sustainability report disclosure strategy. The research results on the relationship between independent commissioners and sustainability reports are supported by [66], which explains that independent commissioners tend to be more conservative in disclosing

company benefits. Independent commissioners who are representatives of minority shareholders and stakeholders tend to focus on carrying out their duties and functions to optimize the company's benefits for these parties [67]. Apart from that, these results support stakeholder theory regarding the role of independent commissioners for stakeholders.

CEO characteristics, which have been moderated by intellectual capital in this study, show a coefficient value (β) of -0.0170, indicating that intellectual capital weakens the relationship between CEO characteristics and sustainability reports. These results show that a decrease will follow every increase in the value of intellectual capital, which moderates CEO characteristics in sustainability report disclosure. The influence of intellectual capital, which weakens the relationship between CEO characteristics and sustainability reports in this study, is indicated because only 22 of the 60 observational data on CEO characteristics optimize the use of intellectual capital for disclosing sustainability reports.

The results of weakening the influence of CEO characteristics on sustainability reports by intellectual capital in this study are supported by [30], who found that CEOs with educational backgrounds in economics and business tend to be more "profit-oriented" so that they have the potential to minimize costs for sustainability activities, especially in environmental aspects. The results of this study are also in line with agency theory, which explains that agency conflicts with agency costs arise from the relationship between principals and agents. CEOs, as agents, have the potential to further optimize costs in increasing intellectual capital to minimize costs (CSR Costs) for sustainability activities and get bonuses. This supports agency theory where the CEO has the potential to be more profit oriented, thereby sacrificing several aspects of usefulness.

However, independent commissioners on sustainability reports in this study are strengthened by intellectual capital. This is shown from the value of the coefficient (β) of independent commissioners who have been moderated by intellectual capital of 0.0267, where any increase in the value of intellectual capital moderated by independent commissioners will be followed by an increase in disclosure of sustainability reports. Apart from that, 38 out of 60 independent commissioners' observational data optimize the use of intellectual capital to disclose sustainability reports.

The results of intellectual capital moderation, which strengthen the relationship between independent commissioners and sustainability reports in this research, are supported by [33], who explain that companies need to carry out value creation to strengthen company sustainability. Independent commissioners who are not bound by conflicts of interest that can affect the objectivity and integrity of the implementation

of their duties and functions tend to prioritize using intellectual capital for company strategic policies toward stakeholders and minority shareholders [74]. The results of this research are also in line with resource-based theory, where the resources owned by a company, such as intellectual capital, can be added value to the company's strategic plans and policies.

6. Conclusion

This research contributes to the application of stakeholder theory, resource-based theory, and agency theory. The research results show that the characteristics of the CEO and independent commissioner simultaneously have a significant effect and partially have a significant positive effect on the sustainability report. Independent commissioners moderated by intellectual capital strengthen the positive significant influence on sustainability reports, but the relationship between CEO characteristics and sustainability reports is weakened by intellectual capital. The level of influence of the characteristics of the CEO and independent commissioners on the sustainability report without moderation was 35.8%, but this value increased after moderation from intellectual capital to 62.2%.

This research has several implications, including 1) companies need to optimize the proportion of independent commissioners in their governance to encourage their involvement in strategies to improve the quality of sustainability report disclosures; 2) The CEO needs to resolve agency conflicts while still paying attention to elements of benefit for shareholders and stakeholders; 3) for regulators, regulations are needed regarding the assessment and evaluation of company sustainability report disclosures and review of sanctions for companies that do not disclose sustainability reports so that they can encourage macro-economic sustainability; 4) for investors; Companies that have CEOs with economic and business educational backgrounds and a high proportion of independent commissioners have a sustainable business strategy that can serve as an indicator for long-term investment. Apart from that, this research has limitations that can be used for research sustainability in this topic. In this regard, this study provides suggestions for future researchers by considering proxies other than CEO education in the economic and business fields, re-investigate on specific sectors listed on the Indonesia Stock Exchange (IDX) and consider other factors that may influence sustainability reports and moderate this relationship.

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