Comparative Analysis of ESG Scores Based on GRI Standards in Indonesia's Consumer Non-Cyclicals and Consumer Cyclicals Sectors

Ni Nyoman Ayu Prapti Rahayu[1*], *I Nyoman Gede* Ustriyana[1], and *Gede Mekse Korri* Arisena[1,2]

[1] Magister of Agribusiness, Udayana University, 80232, Denpasar, Bali, Indonesia
[2] Center of Excellence for Food Sovereignty, Udayana University, 80232, Denpasar, Bali, Indonesia

Abstract. This research analyzes the Environmental, Social, and Governance (ESG) scores of the Consumer Non-Cyclicals (CNC) and Consumer Cyclicals (CC) sectors, that have strong links to agribusiness and sustainable development in Indonesia. ESG disclosure levels are quantitatively assessed based on the Global Reporting Initiative (GRI) standards by assigning scores according to the presence of each disclosure indicator. The novelty of this research is grounded in the comparative assessment of ESG score across sectors, highlighting variations in transparency and reporting consistency while providing empirical insights to enhance sustainable agribusiness governance from a macroeconomic perspective. The findings of this research indicate that the CNC sector consistently achieves higher ESG scores than the CC sector, which suggests that companies in the CNC sector are more active and consistent in implementing sustainable practices as well as fulfilling their social and governance responsibilities. These findings reaffirm that the application of standardized ESG reporting can help understand corporate commitment to sustainability, and also contributes to the literature by offering sector-based evidence on ESG implementation in Indonesia. To support sustainable agribusiness, it is important to enhance the consistency of ESG reporting across sectors and ensure greater transparency and data quality to support effective policy decision making.

1 Introduction

Food security in Indonesia has become a highly critical issue, driven by population growth, climate change, and global economic fluctuations [1]. Ensuring adequate food supply has become a top priority, encompassing efforts to address the challenges of climate change, natural resource degradation, and the potential for food crises [2]. Generally, ensuring food availability holds significant economic potential and strategic value, with demand continuing to increase over time. Considering that point, the agricultural sector plays a central role in this effort, encompassing both upstream production and downstream processing, where added value is created by transforming raw materials into semi-finished or final products [3]. Within this context, the Consumer Non-Cyclicals and Consumer Cyclicals sectors represent two important pillars of Indonesia's agri-based economy [4]. The Consumer Non-Cyclicals sector includes companies that produce essential goods such as food and beverages, which remain in stable demand even during economic downturns. Companies within the Consumer

* Corresponding author: ayuprapti1408@gmail.com

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Non-Cyclicals sector remain a priority for consumers, even during periods of economic downturn or when the market experiences high levels of volatility [5][6].

In contrast, the opposite of the Consumer Non-Cyclicals sector is the Consumer Cyclicals sector, which encompasses secondary or non-essential consumer goods and services, and highly influenced by economic conditions [7]. Although their characteristics differ, both sectors are interlinked with the food supply chain and contribute to food security, consumer welfare, and economic resilience, despite fundamental differences in the types of products they produce and their sensitivity to changes in economic conditions.

In line with the government's focus on national food security, both the Consumer Non-Cyclicals and Consumer Cyclicals sectors listed on the Indonesia Stock Exchange (IDX) serve as strategic pillars that support societal well-being and drive agricultural growth [8]. In this context, evaluating their contributions through sustainability principles becomes increasingly important, as IDX-listed companies are now expected to integrate environmental responsibility, social welfare, and good governance into their business practices, reflecting growing public awareness of sustainability issues and their influence on corporate reputation and performance [9] [10]. The sustainability principles and non-financial responsibilities in the Consumer Non-Cyclicals and Consumer Cyclicals sectors can be measured through the disclosure of Environmental, Social, and Governance (ESG) information. In the development of global capital markets, ESG has become a critical criterion that potential investors consider before making investment decisions [11]. As a result, most stock exchanges now require listed companies to disclose ESG related information.

In 2024, the trend of ESG focused investment continued to grow at an even faster pace, as evidenced by the significant increase in the intensity of global sustainable fund assets aligned with ESG investment criteria. As shown in Figure 1., global sustainable fund assets reached a record high of USD 3.2 trillion by the end of 2024, representing an 8% increase compared to the previous year and a growth of more than fourfold since the end of 2018 [12]. This upward trend in global sustainable fund assets reflects the growing awareness, among investors of environmentally and socially responsible investing, with Europe emerging as the dominant region, followed by the United States. Other areas outside Europe and the United States are also beginning to show positive developments.

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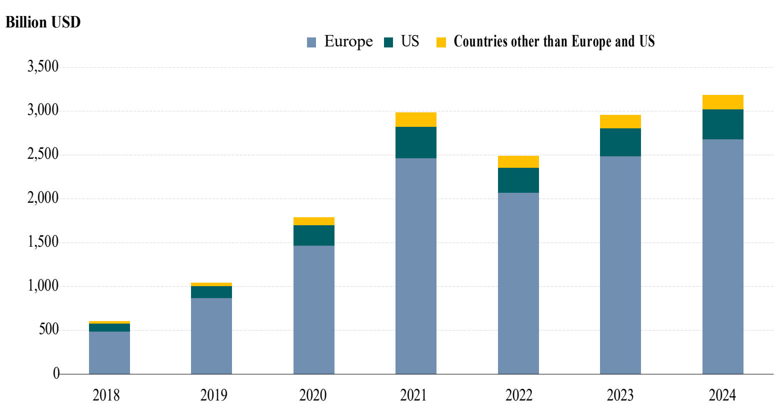

Fig 1. Global Sustainable Fund Flows
Source : Sustainalytics (2024)

Studies conducted by [13], [14] and [15], have shown that ESG disclosure, as a standard for fulfilling a company's non-financial responsibilities, has a positive relationship with firm performance and value. Companies that are more transparent in their ESG disclosure tend to perform better, possess higher firm value, and contribute significantly to long-term business sustainability.

However, the current phenomenon suggests that Indonesia still lags in optimizing ESG disclosure. This is evident from the extremely low and even difficult to identify flow of Indonesia's sustainable fund assets toward ESG based investments. Furthermore, literature on ESG scores in the Consumer Non-Cyclicals and Consumer Cyclicals sectors is minimal and remains underexplored. This highlights a research gap that warrants further investigation, making the research of ESG scores in the Consumer Non-Cyclicals and Consumer Cyclicals sectors particularly critical for sustainable food provision and the fulfilment of various essential consumer needs, which are essential for formulating the most appropriate strategies between the two sectors. Therefore, this research spesifically aims to analyze and compare ESG scores between the Consumer Non-Cyclicals and Consumer Cyclicals sectors in Indonesia based on the Global Reporting Initiative (GRI) standards, which seeks to identify sectoral differences in ESG disclosure, evaluate their implications for sustainability performance, and provide insights to strengthen ESG implementation in Indonesia's agri-based industries.

2 Methodology

In this research, the sampling technique employed is the census method. The advantage of this method lies in its accuracy and complete representativeness of the population, as there is no random element in the selection process. Therefore, the sample in this research consists of companies classified under the Consumer Non-Cyclicals and Consumer Cyclicals sectors that are consistently listed in the IDX stock data. This research utilizes secondary data collection techniques, obtained from official sources such as annual reports, financial statements, and sustainability reports, which are available on the IDX and the respective company websites.

By using the GRI Standards, companies can identify material topics that are important to them and their stakeholders, as well as comprehensively manage the impacts of their operations. The GRI Standards disclosure helps measure how transparent and effective a company is in integrating ESG aspects into its operations and strategic decision-making. By utilizing GRI data, the research can deepen the analysis of ESG's impact on operational performance and company valuation across both categories.

The following is the ESG score formula derived from GRI Standards disclosure, as stated by [19] :

$$\text{ESG Score} = \frac{\text{Disclosed ESG Items}}{\text{Maximum Score of ESG Disclosures}}$$

Based on the ESG formula above, the outcome will be a percentage representing the level of ESG disclosure achievement for each company, allowing an assessment of the extent to which companies in both sectors have met the established ESG disclosure standards. In this research, a total of 97 ESG disclosure topics serve as the reference for evaluating the extent to which companies in the two sectors have comprehensively implemented the ESG score. A total of 97 GRI indicators are used as references, because they comprehensively cover the environmental, social, and governance dimensions and are widely recognized in international GRI reporting standards.

To ensure data validity and reliability, several verification steps were conducted. First, ESG data were cross-checked across multiple reporting years to confirm consistency. Second, two independent coders reviewed the disclosures to reduce subjective bias. Third, incomplete or inconsistent company reports were excluded from the dataset. Despite these efforts, this research acknowledges certain data limitations. ESG disclosure quality varies among companies, which may affect the level of detail and comparability of the information. Differences in reporting formats and the voluntary nature of some ESG indicators may also limit data consistency. However, applying standardized GRI indicators helps minimize these variations and strengthens the overall credibility of the findings.

3 Result

3.1 General Characteristics of Consumer Non-Cyclicals and Consumer Cyclicals Sectors

The general characteristics of the Consumer Non-Cyclicals and Consumer Cyclicals sectors reflect fundamental differences in business scale, experience, market reach, and the types of products produced, the results are presented more clearly in Table 1 below :

Table 1. Characteristics of the Consumer Non-Cyclicals and Consumer Cyclicals Sectors

No.	Characteristics	*Consumer Non-Cyclicals*	*Consumer Cyclicals*
1.	Company Size (IDR Trilion)	1.052.970	546.474
2.	Company Age	Mainly in the 25–50 year range	Mainly in the <25 year range
3.	Market Coverage	Dominated by international market coverage	Dominated by national market coverage
4.	Production Focus	Primary Product	Secondary Products

Source : Processed Data, 2025

Based on Table 1., the Consumer Non-Cyclicals sector has an company size of IDR 1.052.970 trillion, significantly larger than the Consumer Cyclicals sector, which averages only around IDR 546.474 trillion. This difference reflects that the Consumer Non-Cyclicals sector generally operates on a larger scale, with more substantial capital and more established infrastructure, in line with the nature of its products, such as food, household necessities, and daily essentials that enjoy relatively stable demand over time. On another side, the Consumer Cyclicals sector, which produces secondary goods such as retail products, apparel, and electronics, tends to have a higher dependency on economic cycles, making its asset growth more volatile.

From the perspective of company age, the Consumer Non-Cyclicals sector is dominated by entities that have been operating for 25–50 years, indicating stability, extensive experience, and the ability to withstand various market conditions. On the other hand, the Consumer Cyclicals sector is mostly composed of companies under 25 years old, indicating that it is relatively younger and more dynamic, but also more vulnerable to economic uncertainty. Another difference lies in market coverage, where the Consumer Non-Cyclicals sector is dominated by companies with international reach, enabling them to compete in the global market and diversify revenue across countries. The Consumer Cyclicals sector focuses more on the domestic market, which provides closer proximity to local consumers but may limit expansion opportunities during periods of declining purchasing power.

In terms of production focus, the Consumer Non-Cyclicals sector is oriented toward primary products with relatively stable demand that is not significantly affected by macroeconomic conditions. In contrast, the Consumer Cyclicals sector relies on secondary products whose demand is more elastic to changes in consumer income, enabling rapid growth during periods of economic expansion but experiencing sharp declines during recessions. Overall, the Consumer Non-Cyclicals sector has a more stable, established, and globally oriented profile with substantial asset capacity. Meanwhile, the Consumer Cyclicals sector is relatively young, more adaptable, and domestically oriented, yet exhibits a higher degree of volatility.

3.2 ESG Scores of Consumer Non-Cyclicals and Consumer Cyclicals Sectors

The measurement of ESG score in this research refers to a quantitative method based on corporate sustainability reports, following the approach used by [20]. The measurement process involves identifying whether a company discloses ESG indicators by the GRI Standards. Each indicator is assigned a score of 1 if it is disclosed and 0 if it is not disclosed. The total ESG score is then calculated by dividing the number of disclosed indicators by the total number of available disclosure topics (97 topics).

This method enables an objective and consistent evaluation of the extent to which companies apply sustainability principles in their business practices. Such an approach is highly relevant for assessing a company's commitment to addressing global challenges such as climate change, social inequality, and poor governance practices, particularly in the context of companies operating in sectors directly related to public needs and national food security. The following Table 2. presents the average ESG disclosure topics for companies in the Consumer Non-Cyclicals and Consumer Cyclicals sectors based on the research findings :

Table 2. Average ESG Disclosure Rates

No.	Sector	Average ESG Topic Disclosure		
		Environmental (E)	Social (S)	Governance (G)
1.	*Consumer Non-Cyclicals*	5	7	8
2.	*Consumer Cyclicals*	1	2	3

Source : Processed Data, 2025

1. ESG Score Calculation for Consumer Non-Cyclicals Sector :

$$\text{ESG Score} = \frac{Total\ Disclosed\ ESG\ Topics\ \ (E+S+G)}{Maximum\ Possible\ Disclosures \times 100\%}$$

$$\text{ESG Score} = \frac{5+7+8}{97} = 0{,}206186$$
$$= 20{,}62\%$$

2. ESG Score Calculation for Consumer Cyclicals Sector :

$$\text{ESG Score} = \frac{Total\ Disclosed\ ESG\ Topics\ \ (E+S+G)}{Maximum\ Possible\ Disclosures \times 100\%}$$

$$\text{ESG Score} = \frac{1+2+3}{97} = 0{,}061856$$
$$= 6{,}19\%$$

Based on the results above, the ESG score in the Consumer Non-Cyclicals sector was recorded at 20.62%, while in the Consumer Cyclicals sector it was only 6.19%. These figures indicate that ESG disclosure practices in both sectors remain very limited compared to the maximum value of 100%. The Consumer Non-Cyclicals sector, which encompasses producers of food, beverages, and other essential goods, is closely tied to the agricultural supply chain, including farmers, micro enterprises, and food distributors, as well as to agrarian resource welfare and corporate partnership governance. Meanwhile, the Consumer Cyclicals sector, which encompasses non essential products such as retail, apparel, and electronics, although indirectly connected to the agricultural sector, tends not to prioritize ESG as a primary concern. This is reflected in its significantly lower ESG score.

In both sectors, disclosure topics are dominated by governance disclosures, followed by social and environmental disclosures. The dominance of governance disclosure in both sectors suggests that companies prioritise transparency, accountability, compliance with regulations, and effective corporate governance practices. This result aligns with the research of, which suggests that a higher governance disclosure score indicates that companies in a sector prioritise transparency and accountability in governance, including compliance with applicable regulations. In the Consumer Non-Cyclicals sector, this dominance reflects a focus on strict supply chain oversight to ensure product safety and quality, minimize legal risks, and meet international food safety standards. In the Consumer Cyclicals sector, governance priorities focus on brand protection, supplier contract management, and compliance with ethical business standards. The positive effect of this focus is the strengthening of market trust and operational stability, however this also implies the potential neglect of environmental and social issues, which are equally vital for the sector's sustainability.

Social disclosure, which ranks second, reflects attention to the well-being of workers, suppliers, and local communities. In the Consumer Non-Cyclicals sector, this indicates a commitment to supporting the welfare of partner farmers, providing training, and protecting the rights of workers involved in the food supply chain. In the Consumer Cyclicals sector, the social focus is evident in initiatives such as improving employee welfare, empowering artisan communities and raw material producers, and developing Corporate Social Responsibility (CSR) programs. The dominant effect is the creation of long-term stable relationships with partners and workers, which indirectly enhances the smoothness of production and distribution.

Meanwhile, the relatively lower level of environmental disclosure suggests that environmental conservation initiatives have not yet become a top priority. In the Consumer Non-Cyclicals sector, this may indicate that emissions management, water use, and the impacts of fertilizer and pesticide application are not comprehensively disclosed, despite the sector’s significant influence on ecosystems and food security. In the Consumer Cyclicals sector, environmental issues often relate to sourcing raw materials, such as cotton, leather, or natural fibers, which can impact land use and biodiversity. Low environmental disclosure in these two sectors indeed tends to have a negative impact on the desires of the companies within them, which aligns with the research results of which indicate that a low proportion of environmental disclosure can lead to long-term risks, including vulnerability to climate change, decreased productivity, and increased pressure from the global market, which is increasingly emphasising product sustainability.

Thus, the imbalance in the proportion of disclosures between governance, social, and environmental aspects in the Consumer Non-Cyclicals and Consumer Cyclicals sectors indicates that, although governance has emerged as the main strength, a more balanced integration of social and environmental dimensions is still required. This step is crucial to ensure that the sustainability of the agribusiness sector is not merely documented on paper but is effectively implemented in practice, thereby safeguarding supply chain resilience, product quality, and global competitiveness amid the challenges of climate change and market dynamics.

Furthermore, the ESG score in the Consumer Non-Cyclicals sector is higher than in the Consumer Cyclicals sector, indicating a gap in the level of commitment and disclosure of sustainability practices. As a result, the Consumer Non-Cyclicals sector has the potential to gain reputational advantages, more substantial export competitiveness, and broader access to sustainable financing. Conversely, the lower ESG score in the Consumer Cyclicals sector indicates that companies in this sector, which include secondary consumer goods such as lifestyle, entertainment, and recreational products, still place sustainability as a lower priority [25]. This lower score may reflect limited integration of environmental and social aspects into business strategies or the absence of strong market and regulatory pressures to improve disclosure. In the agribusiness context, this could affect supply chains for agricultural-based raw materials (e.g., cotton, leather, or natural fibers), where environmental and social sustainability aspects are not yet fully met. For the long term, this may lead to reputational risks, limited market penetration into environmentally conscious consumer segments, and vulnerability to changes in global sustainability policies.

In this context, the higher ESG score observed in the Consumer Non-Cyclicals sector compared to the Consumer Cyclicals sector reflects not only stronger sustainability from each aspects (Governance, Social, and Environmental) integration but also a higher level of investor confidence. Companies in the Consumer Non-Cyclicals sector demonstrate greater transparency and stronger corporate governance, making them appear more reliable and less risky to investors. Recent studies highlight that a higher ESG score serves as a signal of effective risk management and long-term stability, which enhances corporate reputation and strengthens market perceptions of trustworthiness. However, the lower ESG scores in the Consumer Cyclicals sector suggests limited integration and disclosure of sustainability practices, which can undermine investor trust and restrict access to green or sustainable financing This limited focus on sustainability may expose companies to reputational risks, reduce market appeal to environmentally conscious consumers, and increase vulnerability to evolving global sustainability regulations. These findings indicate that ESG score disparities not only highlight differences in sustainability commitment but also reflect variations in market credibility and investment attractiveness between the two sectors.

Overall, the low ESG scores in both the Consumer Non-Cyclicals and Consumer Cyclicals sectors result from the cumulative effects of companies limited capacity, particularly among small and medium-sized enterprises to make disclosures, coupled with low transparency and accuracy of reporting, and inconsistencies in external assessments . These factors reinforce the perception that ESG is not genuinely implemented but instead treated as a formality. Given this substantial gap, the Consumer Non-Cyclicals sector appears more prepared to adapt to market trends toward comprehensive sustainability. In contrast, the Consumer Cyclicals sector needs to improve the strategic integration of ESG to avoid falling behind. Strengthening the Consumer Cyclicals sector in this regard would not only enhance its position in domestic and international markets but also contribute to broader sustainability goals, particularly in preserving ecosystems and ensuring the welfare of stakeholders within the supply chain.

The weakness of environmental disclosures from this research result, remains a central issue underlying the low ESG scores in both sectors. Many firms in Indonesia, especially small and medium enterprises, face limited technical expertise and financial capacity to measure, monitor, and disclose environmental performance indicators. According to [30] this challenge is common in emerging markets, where companies often prioritize short-term compliance over strategic environmental management. As a result, disclosures are frequently incomplete or inconsistent, focusing on minimal reporting requirements rather than meaningful sustainability outcomes. In comparison with other emerging economies, Indonesia exhibits a similar trend where governance disclosure dominates ESG score. While this reflects progress in corporate oversight and compliance, the imbalance suggests that environmental and social aspects remain secondary.The research from [31] highlight that in developing contexts, environmental disclosure is often driven by external pressures such as international supply chain standards rather than internal sustainability values. This finding implies that Indonesian firms must enhance the integration of ESG beyond compliance, embedding sustainability as part of their strategic and operational framework.

Strengthening environmental disclosure is therefore critical not only for improving ESG ratings but also for ensuring resilience in global competition. Companies that actively disclose and manage their environmental performance are better positioned to attract sustainable investment, comply with export standards, and respond to growing consumer demand for responsible products. To achieve this, Indonesia needs a more coherent policy framework that aligns corporate reporting standards with international sustainability benchmarks, while simultaneously providing capacity-building programs for smaller enterprises. So the strategic recommendations can include :

- Strengthening reporting capacity and standards, especially for medium and small-scale enterprises and collaboration with government and certification bodies could expand the reach of ESG implementation.
- Encouraging transparency through independent audits or more consistent assessment standards, ensuring that ESG reports accurately reflect actual on-the-ground practices.
- Leveraging ESG score as a catalyst and bridge between global standards and local practices, ensuring that ESG disclosure produces tangible positive impacts on corporate sustainability

4 Conclusion

This research compares ESG disclosure scores between Indonesia's Consumer Non-Cyclicals and Consumer Cyclicals sectors, scoring 20.62% and 6.19%, respectively, based on Global Reporting Initiative (GRI) standards. The Non-Cyclicals sector, producing food and essential goods, demonstrates stronger governance and more consistent ESG practices, while the Cyclicals sector, focused on non-essential products, faces challenges due to economic vulnerability and limited reporting. Governance dominates disclosures in both sectors, whereas environmental and social aspects remain underdeveloped. By identifying these sector-specific gaps and drivers of ESG score, the research provides actionable insights to guide policymakers, businesses, and certification bodies in developing targeted ESG strategies, improving reporting standards, and optimizing sustainable investment flows. This contributes to strengthening ESG implementation in Indonesia's agri-based industries, supporting sustainable food provision, and advancing the Sustainable Development Goals.

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