



## Identifying the Critical Variables Between Corporate Sustainability and Business Strategy: Case Study of PT ISM

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### Abstract

**Background:** The 2015 Paris Agreement emphasized the need for significant measures to reduce greenhouse gas (GHG) emissions to 45% by 2030 and achieve net zero by 2050. By continuously expanding its business to a global scale, PT ISM has a more significant obligation to be sustainable and socially, environmentally, and ethically responsible. Therefore, the company needs to integrate these aspects into its business operations as smoothly as possible to avoid economic loss and gain competitive advantage.

**Objective:** The goal of this research is to understand the relationship between PT ISM's sustainability and business-related activities. This research also identifies the critical variables that connect these two concepts by using the sustainability balanced scorecard framework as a basis to develop a corporate-level strategy.

**Method:** Content analysis using ATLAS.ti coding software was utilized to systematically review, note, and group the data from the PT ISM sustainability report into categorized concepts in a coding scheme based on the sustainability balanced scorecard framework. Further analysis was done through co-occurrence analysis using ATLAS.ti to find the intensity of the relationships between these categorized concepts.

**Result:** The coding scheme clearly patterns sustainability and business-related concepts such as GHG emissions, biodiversity, community development, financial performance, and operational efficiency. PT ISM also incorporates many of its sustainability-related activities into its internal processes and organizational capacity based on the intensity of co-occurrence probability.

**Conclusion:** A company's sustainability and business-related activities can be linked using a sustainable balanced scorecard framework. The intensity of these relationships can also be reviewed and identified as a basis for developing an integrated corporate-level strategy that incorporates sustainability and business-related elements.

**Keywords:** balanced scorecard; business strategy; co-occurrence analysis; content analysis; sustainability

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## 1. Introduction

In these past few decades, there has been a gradual increase in interest in the environment, social responsibility, and corporate governance performance methodologies on a global scale. Along with the recent and apparent challenges regarding climate change, pandemic, and geopolitical disputes, the efforts of conserving the environment and valuing stakeholders' interests are also driving extensive social dynamics (Garel & Petit-Romec, 2021; Nordhaus, 2019).

This led to international joint efforts to produce global-scale climate commitments such as the Kyoto Protocols, the Copenhagen Accord, and the Paris Agreement as one of the latest landmarks to emphasize the need to reduce GHG emissions by 45% by 2030 and fulfill the net-zero by 2050. Many countries with major global influences, like the US, China, and European countries, have participated in this commitment, including Indonesia. The Intended Nationally Determined Contribution (INDC) was submitted by Indonesia to the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) before the 21st Conference of the Parties (COP-21) as a concrete form of its commitment toward sustainability-related issues. Following this commitment, the Indonesian government needs to ensure that all of the stakeholders are aligned with the vision and comply with the national target through a set of policies (Republic of Indonesia, 2022).

PT Indofood Sukses Makmur (ISM), one of the biggest food consumer goods companies in Indonesia, has a major impact across its supply chain. Hence, it has significant obligations to be more socially, environmentally, and ethically responsible for its operation. Moreover, PT ISM is also currently focusing on penetrating the global market, which requires the company to be able to adapt to countries that may have stricter policies and market awareness regarding sustainability.

Based on PT ISM's 2023 Sustainability Report, the company currently has three pillars that consist of 15 material topics to support its sustainability vision, namely resilience in delivering food for all, environmental stewardship, and stronger together with our communities. PT ISM's sustainability framework is made based on the company's mission and values that guide policy planning and procedural implementation to achieve the best results for the environment, economies, and the communities where they operate (PT Indofood Sukses Makmur, 2024).

The addition of these sustainability perspectives must be integrated smoothly to avoid economic loss and gain a competitive advantage during the process. The primary purpose of this study is to identify the critical variables that connect sustainability and business-related activities within PT ISM's operations. The result of this research can be used as the basis for PT ISM to develop a robust corporate-level strategy that incorporates these two elements.

## 2. Literature Review

From the previously given research background, the need for PT ISM to integrate sustainability and business-related issues in its corporate-level strategy has already been described. To achieve the goals of this research, past studies need to validate the approach.

### 2.1. Sustainability & Business Strategy

Global challenges that involve climate change, economic crisis, and social disparities are set to shape the future of human civilization. Neglecting these complex challenges could result in devastating consequences for human welfare (Steffen et al., 2015). These complex challenges can be categorized as wicked problems, as the factors are so intertwined with each other in a complex manner that pinpointing a singular root cause or solution is challenging to achieve (Rittel & Webber, 1973).

Business researchers have traditionally assumed that organizations' initiatives can be separated from the always-changing and unpredictable social-environmental systems where they operate. They often use deterministic thinking rather than probabilistic reasoning, which is actually more suitable in dynamic environments. Nevertheless, many parts of these researches still rely on traditional reductionist thinking, dimming out the complex and dynamic nature of wicked problems (Grewatsch et al., 2023).

This approach may not be the best because the external factors are constantly changing, and it assumes unlimited organizational growth in a world with constrained resources. One example is the attempt to address environmental challenges by focusing on reducing carbon emissions at the organizational level. However, assuming the organizations finally manage to reduce their GHG emissions, the cumulative emissions could still surpass the emissions target due to factors that are outside of the scope of business operations (Grewatsch et al., 2023). A robust strategy that incorporates sustainability perspectives into the business is needed to anticipate these wicked problems.

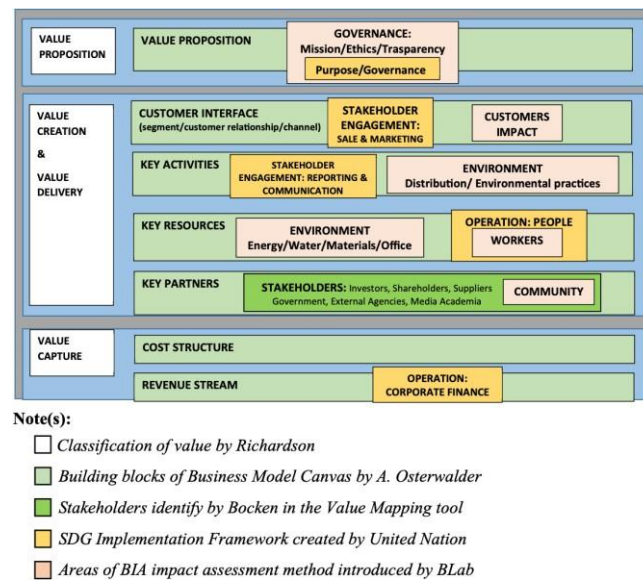
## 2.2. *Business Model for Sustainability*

Over the past decade, scientific research related to sustainable business model innovation has been developing as an important area, drawing considerable attention regarding sustainability-related innovations (Cillo et al., 2019). Sustainable business model innovation specifically entails a company's operations transformation to reduce harmful external impacts while creating new and positive outcomes for both the environment and society. It also broadens the focus of business objectives from purely economic returns to shared value (Porter & Kramer, 2011). In practical terms, more businesses are increasingly incorporating green innovation into their models to seize market opportunities and gain a competitive edge (Presenza et al., 2019).

Sustainable business model innovation can be identified from embedded sustainable-related actions or objectives to the existing value proposition. This approach requires integrating non-financial considerations into decision-making and having leaders who champion sustainability, instilling a new perspective across the business (Stubbs & Cocklin, 2008). The primary aim is to shift the business objective towards sustainability goals by nurturing value creation that addresses the stakeholders' and environmental needs (Baldassarre et al., 2017).

Business leaders who are focusing on innovating their business model should also emphasize a sustainable value proposition to avoid destroying their business value (Roome & Louche, 2016). To accomplish this, business leaders must thoroughly understand the risk factors and adapt the business model accordingly. Business leaders must also be aware that sustainable business model innovation stresses the importance of creating and delivering value through activities that yield balanced eco-social benefits for all stakeholders (Ferlito & Faraci, 2022). Additionally, value distribution among the stakeholders must also be addressed (Amit & Zott, 2020). This approach focuses not only on capturing economic benefits for investors but also on external factors such as the environment and society for all the impacted parties across the value chain.

In SBMI, researchers often equate these values with impact and sometimes even use the terms interchangeably (Ferlito & Faraci, 2022). These value equation processes are complex, as transforming a business model requires incorporating various metrics and meeting the diverse needs of different stakeholders (Snihur & Wiklund, 2019). To address this, a framework was designed to guide researchers and professionals in conceptualizing an effective business innovation process that is aimed toward sustainability. The framework can be seen in Figure 1.



**Figure 1.** Framework For Sustainable Business Model Innovation

Source: (Ferlito & Faraci, 2022)

This framework also serves as a practical tool for practitioners, guiding them to plan actions across various departments and supporting the implementation of business model transformations (Ferlito & Faraci, 2022). It introduces the integration of sustainability elements, such as purpose/governance, stakeholder engagement, environment, and community, with widely known business model elements, such as value proposition, customer interface, key resources, and revenue stream. This business model, which has been integrated with sustainability elements, serves as a solid foundation for a company to develop its sustainability strategy on a corporate level.

### 2.3. *Balanced Scorecard*

Amid increasing competition across numerous business sectors, companies must adopt modern and effective management approaches to gain and maintain competitive advantages. These approaches are also needed to aid in the selection, execution, and assessment of their strategies, especially at the corporate level. Several frameworks are commonly used to develop strategic business objectives, including Management by Objectives (MBO). MBO is an approach that concentrates on defining specific and measurable objectives for individuals and teams. Setting these objectives and monitoring progress are crucial for organizational effectiveness and should be integrated throughout all levels of the organization. Although MBO offers goal-setting and performance assessment dimensions, it generally does not offer the structured framework or the comprehensive, multi-dimensional view (Kyriakopoulos, 2012).

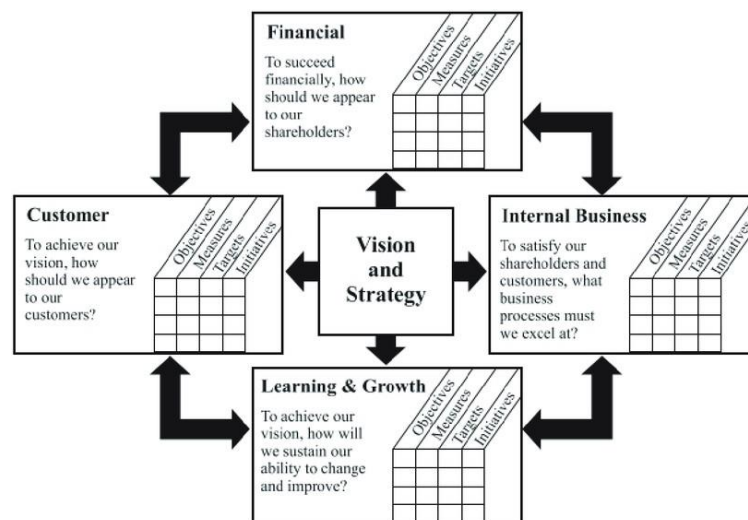
Six Sigma is also recognized as a customer-focused approach designed to optimize operational efficiency by ensuring that customers receive products and services of the highest possible quality (Chakraborty & Leyer, 2013). This method targets effectiveness, enhances productivity, and better aligns products and services with customer expectations to achieve maximum ROI and performance (Ulmer, 2008). Six Sigma is also defined as a concept for process improvement, a problem-solving methodology, and a philosophy aimed at enhancing product or service quality by minimizing defects across production stages (Camargo, 2006). While Six Sigma emphasizes operational excellence and process improvement, it may fall short when it comes to addressing broader strategic objectives or a comprehensive view of performance across multiple organizational dimensions (Ramakrishna & Alzoubi, 2022).

Total Quality Management (TQM) was also widely adopted in developed countries in the early 1990s to enhance corporate adaptability and competitiveness in meeting customer needs (Samson & Terziovski, 1999). It is an integrated management philosophy focused on continuously improving product and process quality to achieve higher customer satisfaction (Anil & Satish, 2019). This

perspective highlights TQM's role in improving business performance. TQM not only satisfies and expands the customer base but also enhances financial performance through cost savings (Shafiq et al., 2019). While TQM emphasizes continuous improvement, it lacks the structured framework to align actions with strategic goals and measure performance across multiple dimensions (Tsou et al., 2021).

Another concept is Performance Prism (PP), a theoretical framework that integrates five interrelated perspectives, providing executives with a structure to answer five key questions: stakeholder satisfaction, strategy, process, capability, and stakeholder contribution (Liu et al., 2018). Within the PP approach, the stakeholders involved in performance measurement include shareholders, customers, suppliers, employees, and local communities (Friedman & Miles, 2006). The PP model's design process involves identifying stakeholders' needs and wants, determining the contributions expected from stakeholders, and defining the strategy, processes, and capabilities the company requires to meet each stakeholder's expectations (Neely & Adams, 2003). However, PP places a stronger emphasis on stakeholder perspectives and relationships rather than on internal processes and growth (Yudhistira et al., 2022).

Compared to the previously discussed methods, the Balanced Scorecard (BSC) serves as one of the business tools that has multiple perspectives to measure and manage business performance. It has a hierarchical structure around four essential, distinct but interrelated perspectives: finance, customers, internal processes, and organizational capacity. This design aims to balance financial-related metrics and other metrics, short-term and long-term goals, and the tangible and intangible measurements. When successfully implemented in specific organizations, the BSC has evolved from an essential management tool into a robust strategic business management system. Figure 2 illustrates the structure of the Balanced Scorecard.



**Figure 2.** Balanced Scorecard Framework

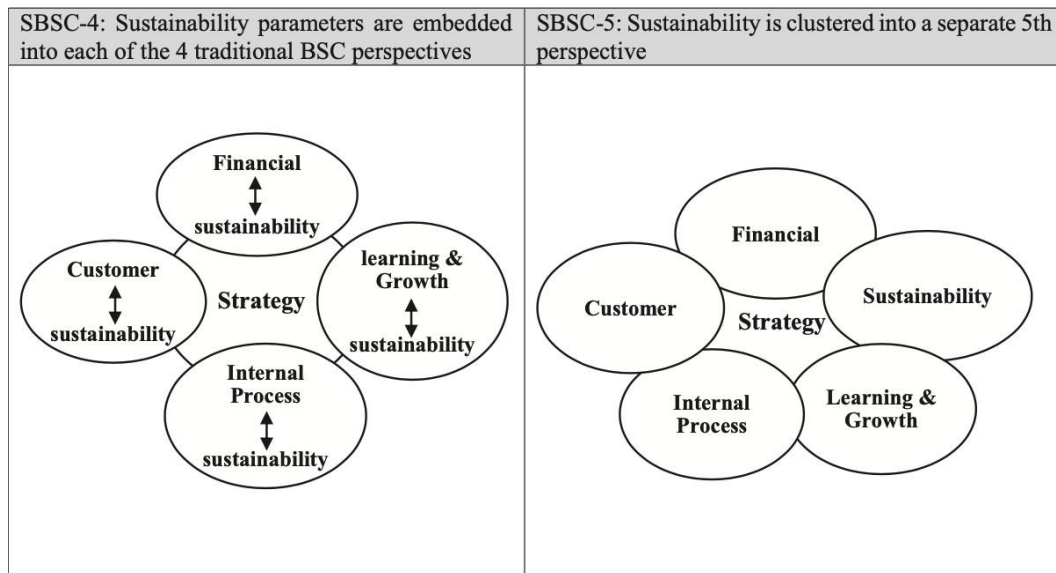
Source: Dudic et al., 2020

Many companies recognize that achieving social and environmental objectives can be vital for meeting financial targets, as these efforts can attract customers, employees, and investors. The inadequacies of traditional methods for measuring and managing corporate performance have heightened economic risks for businesses, the economy, and society. The BSC incorporates financial and non-financial indicators to assess business performance and to sustain long-term financial success by leveraging non-financial metrics as signals of progress toward this challenging goal (Dudic et al., 2020).

#### 2.4. Sustainable Balanced Scorecard

With the advent of non-financial terms, namely corporate social responsibility (CSR) and sustainability, there is increasing interest in integrated systems that comprehensively measure economic,

social, and environmental performance (Lee, 2008; Maon et al., 2009). The Sustainable Balanced Scorecard (SBSC) has emerged as an adaptation of the traditional BSC, explicitly incorporating social and environmental objectives as part of the non-financial indicators into its framework. There are two main SBSC architectures in academic discussions: one that embeds sustainability metrics within each of the four traditional BSC perspectives and another that introduces five perspectives, treating environmental and social sustainability as separate, distinct dimensions as depicted in Figure 3 (Jassem et al., 2022).

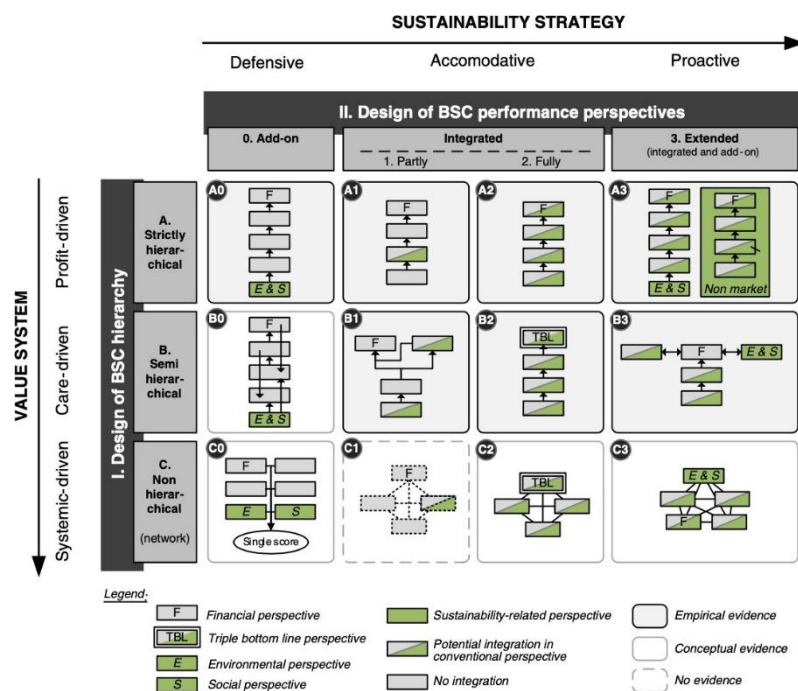


**Figure 3.** Two Types of SBSC Architecture

Source: (Chaker et al., 2017)

The SBSC-4 outlined how sustainability-focused goals are incorporated within the conventional Balanced Scorecard (BSC) performance dimensions. The SBSC-5 links business performance categories to sustainability objectives and explores their alignment with the organization's core value framework. Earlier research has categorized SBSC architectures into hierarchical, semi-hierarchical, and non-hierarchical models. Findings from the related literature indicate that the majority of SBSC architectures are hierarchical, meaning the performance metrics are strongly related to the financial perspective (Hansen & Schaltegger, 2016). The SBSC architecture is categorized further based on the integration level desired to what extent: add-on, partially integrated, fully integrated, or a combined approach that mixes add-on and integrated elements. The generic SBSC architecture typology based on these two dimensions is illustrated in Figure 4.





**Figure 4.** SBSCs Architectures Based on The Integration Levels

Source: (Hansen & Schaltegger, 2016)

Referring to the SBSC architecture that was developed in Figure 4, there were arguments that the SBSC-specific structures were inconsequential and unlikely to significantly impact the achievement of organizational strategies (Hahn & Figge, 2018). They argued that the SBSC was poorly equipped to support organizations' sustainability objectives. In response to this critique, Hansen & Schaltegger (2018) responded with a detailed rebuttal, clarifying that they never proposed the SBSC as the ultimate solution for enhancing organizational performance and argued that the SBSC architecture plays a vital role in organizational decision-making instead (Jassem et al., 2022).

Taking from another approach, Chaker et al. (2017) were referring to Hansen & Schaltegger's (2016) work. They noted that the semi-hierarchical and non-hierarchical structures bear little resemblance to either the SBSC or the traditional BSC, aligning more closely with other performance frameworks. Despite ongoing debates over SBSC's application, it remains a valuable tool for integrating sustainability into business practices. It enables companies to assess the impact of sustainability initiatives on various balanced scorecard perspectives, especially on the financial performance (Abdelkafi & Täuscher, 2016).

The SBSC framework is the most suitable management tool to be used as the foundation to answer the research questions because a sustainability-related perspective can be integrated as non-financial indicators with the business-related perspective that mainly focuses on financial indicators. PT ISM can also use this framework to review the impact of current sustainability activities on its business operations as a basis for further development of its corporate sustainability strategy.

### 3. Method

#### 3.1. Sample / Participants

The primary data used for the analysis was PT ISM's 2023 Sustainability Report, because they have already described the general business operation and all of the sustainability actions in detail through extensive data collection for years. Hence, another data collection within the company would be considered redundant. Since the primary data is a report, there may be some information missing, especially regarding the actual practice and the implementation process that led to the point where the report was composed.

This was the main reason why another source of data was needed to give another perspective on the implementation of sustainability actions. To complement the missing perspectives in the sustainability

report, an interview with the expert who has decision-making authority in the company regarding the related issues was conducted. At the same time, it gave a wider perspective regarding the context. Potential biases that came from the expert's personal point of view and experience needed to be anticipated in the interview process.

### 3.2. *Instrument(s)*

Qualitative analysis was conducted using ATLAS.ti coding software to analyze the data was utilized to systematically review, note, and group the data into categorized sectors and concepts that are mentioned in the references. The most significant categorized codes are then used to develop model subsectors. After the code categories were selected to be analyzed, co-occurrence probability matrices were produced from the textual data by using ATLAS.ti software. The co-occurrence probability matrices were visualized using the software to identify the strength of each correlation that was identified (Swann, 2016).

### 3.3. *Data collection procedures*

The primary data, which is PT ISM's sustainability report for 2023, is open to be accessed by the public and credibly audited because of PT ISM's obligation as a publicly listed company. Aside from the primary data that has already been publicly available in a textual format, an audio-recorded interview was also transcribed to be analyzed by the software as textual data and then coded based on the conceptual framework of the research. The interview was done using a semi-structured method because the questions and objectives had already been set based on the first coding of the sustainability report, literature, and the conceptual framework of the research. The list of questions can be seen in Table 1.

**Table 1.** Semi-structured Interview Questions List

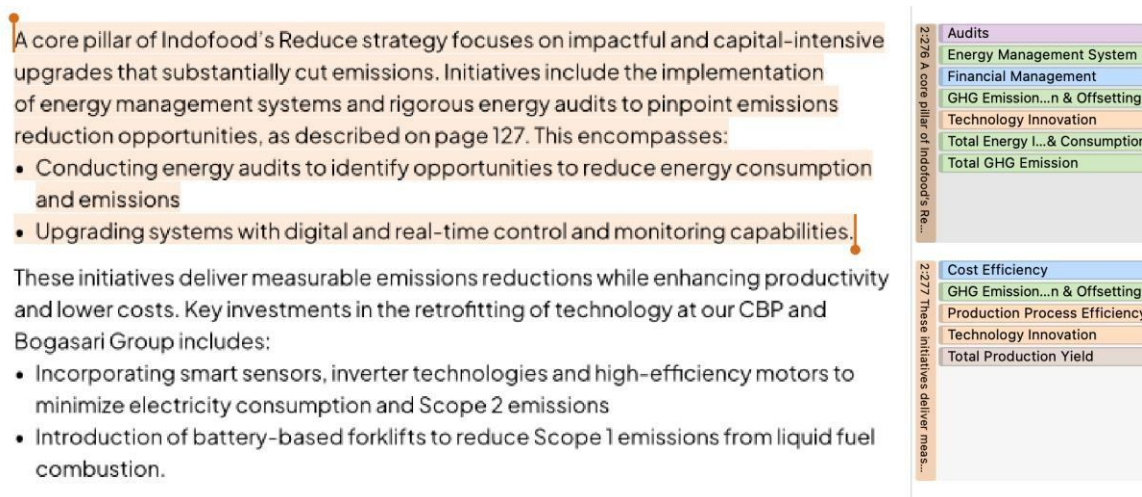
| No. | Question                                                                                                                                                                              | Objective                                                                                                                                       |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Based on your experience when composing the sustainability data, what are the insights that you got? Do you see this as something that changes how the company works?                 | Opening questions to learn the respondent's experience with the company's sustainability transformations                                        |
| 2   | How does the company determine the critical sustainability <b>objectives</b> at the strategic level?<br>How does this affect the business objectives based on your experience so far? | To understand the strategic sustainability <b>objectives</b> and how these affect the business objectives based on the employees' understanding |
| 3   | What <b>measurements</b> were used to evaluate the sustainability objectives? Moreover, what were the business operation <b>measurements</b> affected based on your understanding?    | To understand how the employees define and perceive the correlation between the <b>measurements</b> in sustainability and business strategy     |
| 4   | What do you think about the <b>targets</b> currently set from these measurements? Which ones do you consider as high, medium, and low priority targets?                               | To understand the <b>target</b> prioritization of the measurements mentioned before, without disclosing the actual target in numbers            |
| 5   | What are the initiative examples from the business units that have been done to achieve these targets from your experience so far?                                                    | To understand the initiatives, actions, and activities that the company takes to meet the mentioned targets                                     |



### 3.4. Data analysis

To produce the expected output that answers the research questions, several steps were taken in order. Content analysis was performed by using ATLAS.ti software to systematically review, document, and categorize the data into sectors and concepts mentioned within the textual data, and identify the relationship between them. Coding schemes were first constructed by applying an inductive approach during open coding. This process involved assigning labels to concepts and categories in the early phase of the data analysis, which are refined and firmed as themes emerge in line with the research objectives (Benaquisto, 2008). Additionally, after the general framework of the coding scheme was set, the data from the semi-structured interview were inducted into the software to enhance the analysis and minimize biases in the first coding process. Despite differences in the nature and amount of available data from sustainability and business perspectives, both literature reviews and data analysis findings addressed the overarching research questions.

After the coding scheme was set, co-occurrence analysis examines the connection between the codes by identifying their frequency to be correlated with each other from the data (Wilkinson & Birmingham, 2003). When two different codes overlap, they can be identified as "co-occurrences" (ATLAS.ti Scientific Software Development GmbH, 2024). One of the examples of overlapping codes is illustrated in Figure 5. The strength of the co-occurrence between codes can be measured by the relative frequency when they overlap as a "co-occurrence probability" metric. This metric is calculated by using total relative frequencies, based on the total number of all selected codes (ATLAS.ti Scientific Software Development GmbH, 2024). A higher number of them suggests a stronger connection between the codes, which serves as a foundation for the discussion in this research.



**Figure 5.** The Application of Codes in ATLAS.ti Software

To establish the findings from this analysis, the coding schemes' categories' relationship from all textual data needed to be identified. These categories consist of codes and sub-codes, designed to provide detailed insights into each concept. All the data share common foundational concepts that are aligned with the Sustainability Balanced Scorecard (SBSC) framework. These core concepts are objectives, measurements, and initiatives. Using these relevant concepts in the coding schemes facilitated a more robust analysis of the data and leveraged the strengths of each collection method.

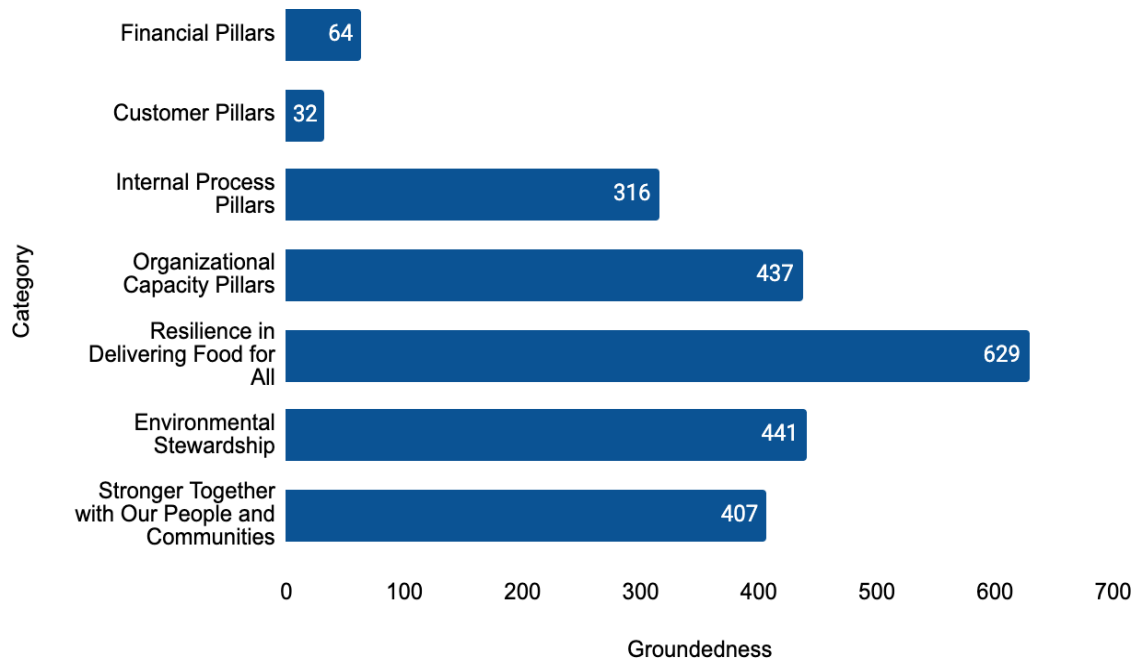
## 4. Results

The coding scheme comprises 7 code categories based on the first open coding analysis, literature review, and expert interviews. The code categories were divided into two perspectives. The first one is from the business perspective that consists of customer pillars, financial pillars, internal process pillars, and organizational capacity pillars. The second one is from the sustainability perspective, which consists of resilience in delivering food for all, environmental stewardship, and strength together with our people and communities. The coding scheme can be seen in Table 2.

**Table 2.** Textual Data Coding Scheme

| Perspective                                       | Category                               | Codes                                 | Groundedness                             |     |
|---------------------------------------------------|----------------------------------------|---------------------------------------|------------------------------------------|-----|
| Business Perspective                              | Financial Pillars                      | Financial Management                  | 12                                       |     |
|                                                   |                                        | Financial Performance                 | 20                                       |     |
|                                                   |                                        | Customer Relationship Management      | 31                                       |     |
|                                                   | Customer Pillars                       | Market Size & Share                   | 33                                       |     |
|                                                   |                                        | Business Development                  | 53                                       |     |
|                                                   |                                        | Internal Process Pillars              | Production & Operation Process           | 209 |
|                                                   | Programs & Campaigns                   |                                       | 54                                       |     |
|                                                   | Compliance & Certification             |                                       | 196                                      |     |
|                                                   | Organizational Capacity Pillars        | Management Excellence                 | 69                                       |     |
|                                                   |                                        | Risk Management & Corrective Actions  | 172                                      |     |
|                                                   |                                        | Product Safety, Quality, and Halal    | 103                                      |     |
|                                                   | Sustainability Perspective             | Resilience in Delivering Food for All | Nutritional Value                        | 44  |
|                                                   |                                        |                                       | Responsible Marketing and Communications | 23  |
|                                                   |                                        |                                       | Sustainable and Responsible Sourcing     | 78  |
|                                                   |                                        | Environmental Stewardship             | Socio-Economic Inclusion                 | 109 |
| Governance and Ethics                             |                                        |                                       | 105                                      |     |
| Resilience and Innovation                         |                                        |                                       | 167                                      |     |
| Climate Change and GHG Emissions                  |                                        |                                       | 75                                       |     |
| Energy Management                                 |                                        |                                       | 101                                      |     |
| Water Management                                  |                                        |                                       | 63                                       |     |
| Packaging and Waste Management                    |                                        |                                       | 122                                      |     |
| Stronger Together with Our People and Communities | Biodiversity                           | 80                                    |                                          |     |
|                                                   | Employee Health & Safety and Wellbeing | 86                                    |                                          |     |
|                                                   | Labor Practices and People Development | 133                                   |                                          |     |
|                                                   | Community Development                  | 188                                   |                                          |     |
|                                                   | Grand Total                            | 2326                                  |                                          |     |

The pillar codes defined the type and scope of topics related to each pillar's objectives, the initiatives undertaken to achieve these objectives, and the measurements used to assess success. Subcodes further refined each primary code, adding specificity to the conceptual framework, mainly grounded in the sustainable balanced scorecard approach. Figure 6 illustrates the distribution of each code, represented by its groundedness. Groundedness refers to the number of quotations assigned to a code, indicating how frequently the code appears in the dataset.

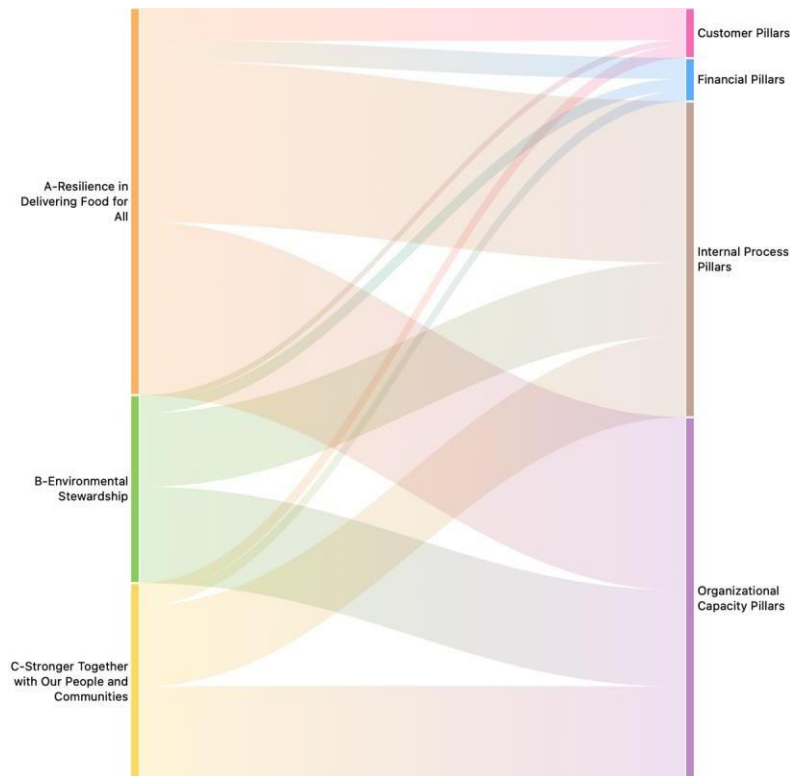


**Figure 6.** Typology of Generic SBSCs Strategy Maps Architectures

As mentioned before, once the data coding process was completed, a co-occurrence analysis was conducted using ATLAS.ti software. In this study, co-occurrence analysis was used to explore the relationships between PT ISM's sustainability initiatives and their impact on business operations. By selecting the relevant and needed code categories, the software produced co-occurrence probability matrices, which are shown in Figure 7. These relationships were further visualized using a Sankey diagram, as presented in Figure 8.

|                                                              | Customer Pillars<br>(45) | Financial Pillars<br>(28) | Internal Process Pillars<br>(233) | Organizational Capacity Pillars<br>(256) |
|--------------------------------------------------------------|--------------------------|---------------------------|-----------------------------------|------------------------------------------|
| A-Resilience in Delivering Food for All<br>(322)             | 34 (0.10)                | 22 (0.07)                 | 171 (0.45)                        | 184 (0.47)                               |
| B-Environmental Stewardship<br>(184)                         | 6 (0.03)                 | 13 (0.07)                 | 78 (0.23)                         | 102 (0.30)                               |
| C-Stronger Together with Our People and Communities<br>(195) | 13 (0.06)                | 11 (0.05)                 | 86 (0.25)                         | 98 (0.28)                                |

**Figure 7.** Co-occurrence Matrix Showing Overall Relationships Between Sustainability & Business Perspectives in PT ISM's Activities



**Figure 8.** Sankey Diagram Showing Overall Relationships Between Sustainability & Business Perspectives in PT ISM's Activities

One of the objectives of this research is to incorporate sustainability perspectives into the balanced scorecard. By modifying the needed codes and sub-codes to be analyzed, there are numerous possibilities for identifying the relationship between all of the concepts within the coding scheme. The co-occurrence analysis result that has already been illustrated in Figure 8 can also be utilized by identifying the correlation between objectives, measurements, and initiatives from the sustainability perspective into the business perspective, as well as the strength of the relationships between these concepts. The result can be seen in Table 3.

**Table 3.** The Incorporation of PT ISM's Sustainability-related Activities into a Balanced Scorecard Framework

| Category                 | Objectives                                                                                                                                                                                                                                         | Measures                                                                                                                                                                                                         | Initiatives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Financial Pillars        | High Priority (Strong Relation)<br>● Production Process Efficiency                                                                                                                                                                                 | High Priority (Strong Relation)<br>● Total Energy Intensity & Consumption                                                                                                                                        | High Priority (Strong Relation)<br>● Technology Innovation<br>● GHG Emissions Reduction & Offsetting                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                          | Medium Priority (Fair Relation)<br>● Sustainable & Responsible Business Activity<br>● Social Impact                                                                                                                                                | Medium Priority (Fair Relation)<br>● Total Water Usage<br>● Total Waste Intensity<br>● Total Facility (for Community)                                                                                            | Medium Priority (Fair Relation)<br>● Quality Management<br>● Sustainability Actions Reporting<br>● Business Innovation                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                          | Low Priority (Weak Relation)<br>● Supply Chain Traceability<br>● Operation Resilience<br>● Energy Efficiency<br>● Employees Rights Protection                                                                                                      | Low Priority (Weak Relation)<br>● Total Renewable Energy Usage<br>● Total Supporting Facility<br>● Total Employees<br>● Total People / Group (Community)                                                         | Low Priority (Weak Relation)<br>● Raw Material Sourcing<br>● Community Capacity Building<br>● Community Engagement<br>● Occupational Health & Safety Implementation                                                                                                                                                                                                                                                                                                                                                                                           |
| Customer Pillars         | High Priority (Strong Relation)<br>● Sustainable & Responsible Product<br>● Healthier Option Products                                                                                                                                              | High Priority (Strong Relation)<br>● Salt, Sugar & Fat Content<br>● Total People / Group (Community)                                                                                                             | High Priority (Strong Relation)<br>● Technology Innovation<br>● Food Safety Management<br>● Nutrition & Health Campaign<br>● Food Portion Control                                                                                                                                                                                                                                                                                                                                                                                                             |
|                          | Medium Priority (Fair Relation)<br>● Business Model & Operation Resilience<br>● Production Process Efficiency<br>● Sustainable & Responsible Business Activity<br>● Social Impact                                                                  | Medium Priority (Fair Relation)<br>● Total Facility (for Community)<br><br>Low Priority (Weak Relation)<br>● Total Waste Intensity                                                                               | Medium Priority (Fair Relation)<br>● Quality Management<br>● Research & Development<br>● Waste Recycling                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                          | Low Priority (Weak Relation)<br>● Nutrition Issues Solutions<br>● Resource Efficiency<br>● Product Accessibility, Affordability & Availability                                                                                                     |                                                                                                                                                                                                                  | Low Priority (Weak Relation)<br>● Business Innovation<br>● Product Innovation<br>● Multilevel Stakeholders Collaboration & Partnership<br>● Employees Improvement & Upskilling<br>● Community Capacity Building<br>● Community Engagement                                                                                                                                                                                                                                                                                                                     |
| Internal Process Pillars | High Priority (Strong Relation)<br>● Sustainable & Responsible Product<br>● Sustainable & Responsible Business Activity<br>● Production Process Efficiency<br>● Business Model & Operation Resilience<br>● Environmental Conservation & Protection | High Priority (Strong Relation)<br>● Total High Conservation Value (HCV) Area<br>● Total GHG Emission<br>● Total Energy Intensity & Consumption<br>● Total Waste Intensity<br>● Total People / Group (Community) | High Priority (Strong Relation)<br>● Raw Material Sourcing<br>● Technology Innovation<br>● Multilevel Stakeholders Collaboration & Partnership<br>● Quality Management                                                                                                                                                                                                                                                                                                                                                                                        |
|                          | Medium Priority (Fair Relation)<br>● Sustainable & Responsible Sourcing<br>● Energy Efficiency<br>● Community Development<br>● Social Impact                                                                                                       | Medium Priority (Fair Relation)<br>● Total Water Usage<br>● Total Facility (for Community)                                                                                                                       | Medium Priority (Fair Relation)<br>● Food Safety Management<br>● Corporate Policies and Control Procedures<br>● Community Capacity Building                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                          | Low Priority (Weak Relation)<br>● Resource Efficiency<br>● Inclusive Business Model<br>● Product Accessibility, Affordability & Availability<br>● Water Efficiency<br>● Employees' Health & Wellbeing Protection<br>● Employees Rights Protection  | Low Priority (Weak Relation)<br>● Salt, Sugar & Fat Content<br>● Total Fossil Fuel Usage<br>● Total Trees Planted<br>● Total Accidents<br>● Total Employees                                                      | Low Priority (Weak Relation)<br>● Nutrition & Health Campaign<br>● Research & Development<br>● Halal Management<br>● Stakeholders Relationship Management<br>● Executive Monitoring & Evaluation<br>● Sustainability Actions Reporting<br>● Supply Chain Management<br>● GHG Emissions Reduction & Offsetting<br>● Energy Management System<br>● Water Resource Management<br>● Sustainable Packaging<br>● Community Engagement<br>● Community Rights Protection<br>● Occupational Health & Safety Implementation<br>● Community Financial & Resource Support |

|                                       |                                                                                                                                                                                                                |                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Organizational<br>Capacity<br>Pillars | High Priority (Strong Relation)<br>• Sustainable & Responsible Product<br>• Sustainable & Responsible Business Activity<br>• Energy Efficiency<br>• Environmental Conservation & Protection<br>• Social Impact | High Priority (Strong Relation)<br>• Total Energy Intensity & Consumption<br>• Total Waste Intensity                                                                 | High Priority (Strong Relation)<br>• Corporate Policies and Control Procedures<br>• Quality Management<br>• Raw Material Sourcing                                                                                                                                                                                                                                                                                                     |
|                                       | Medium Priority (Fair Relation)<br>• Production Process Efficiency<br>• Employees Rights Protection                                                                                                            | Medium Priority (Fair Relation)<br>• Total GHG Emission<br>• Total High Conservation Value (HCV) Area                                                                | Medium Priority (Fair Relation)<br>• Food Safety Management<br>• Multilevel Stakeholders Collaboration & Partnership<br>• Stakeholders Relationship Management<br>• Technology Innovation<br>• Employees Improvement & Upskilling<br>• Employees Engagement                                                                                                                                                                           |
|                                       | Low Priority (Weak Relation)<br>• Sustainable & Responsible Sourcing<br>• Business Model & Operation Resilience<br>• Water Efficiency                                                                          | Low Priority (Weak Relation)<br>• Salt, Sugar & Fat Content<br>• Total Water Usage<br>• Total Trees Planted<br>• Total Facility (for Community)<br>• Total Employees | Low Priority (Weak Relation)<br>• Community Rights Protection<br>• Community Capacity Building                                                                                                                                                                                                                                                                                                                                        |
|                                       |                                                                                                                                                                                                                |                                                                                                                                                                      | Low Priority (Weak Relation)<br>• Halal Management<br>• Executive Monitoring & Evaluation<br>• Sustainability Actions Reporting<br>• Research & Development<br>• Supply Chain Management<br>• GHG Emissions Management<br>• GHG Emissions Reduction & Offsetting<br>• Energy Management System<br>• Water Conservation<br>• Water Resource Management<br>• Sustainable Packaging<br>• Waste Recycling<br>• Collective Labor Agreement |

- Resilience in Delivering Food for All
- Environmental Stewardship
- Stronger Together with Our People & Communities

Based on Table 3, there are some categorizations regarding the high, medium, and low priority based on the strength of the co-occurrence relationship. The high priority, which indicates a strong relation between the two concepts, is a highly recommended aspect to be incorporated in the corporate-level strategy. The medium priority that represents the fair relationship shows that those aspects are still a gray area that may need to be studied further or customized within the strategic business unit levels. The low priority that represents the weak link can be considered as a non-significant correlation, but it still affects the activities, whether directly or indirectly. These insights can be used as a foundation to review and develop the corporate sustainability strategy in order to avoid economic loss and gain a competitive advantage in the long run through consistent and relevant executions.

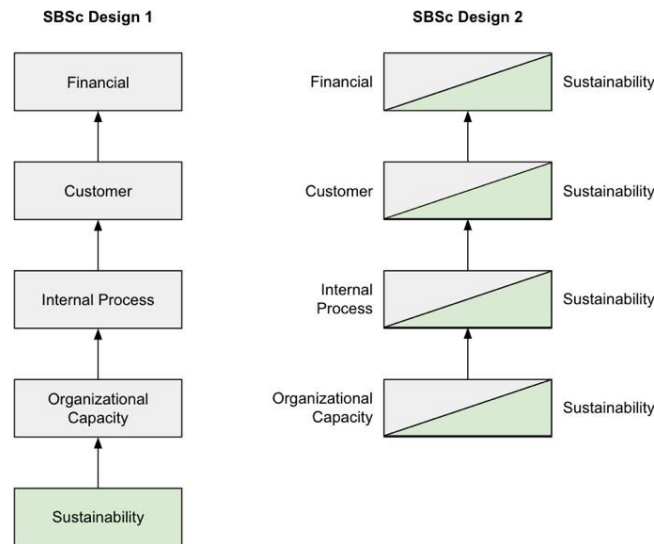
## 5. Discussion

As already mentioned before, the result of this research is used as the basis to review and develop a robust corporate-level strategy that is relevant to the business and its stakeholders. It is shown from Figures 7 and 8 that PT ISM's sustainability-related topics are strongly correlated with the organizational capacity pillars and internal process compared to the other pillars. This result indicates that the company is focusing a lot on implementing its sustainability initiatives from the bottom to the top of the strategy map in the balanced scorecard framework. Resilience in delivering food for all pillar has the most significant share of the co-occurrence probability. It is reasonable because it is reflected in the fact that it has the most sustainability materiality topics, which indicates that the company is focusing most of its sustainability actions on this pillar.

Based on the interview, the sustainability materiality topics were already implemented into the targets and KPIs at the functional and operational level. However, as far as this study goes, the existing sustainability pillars' framework of PT ISM is still separated from the strategy at the corporate level. Based on the content analysis from the sustainability report and the sustainability balanced scorecard framework, there are some options on how the company can incorporate its sustainability actions. As a fast-moving consumer goods (FMCG) company, PT ISM's organization structure can be categorized as a strategic business unit (SBU) form of the multidivisional structure due to its nature of having a single

corporate level management in the headquarters and many business units for various product categories and brands. Each of the business units has its own functional structure that is separate from the other business units.

As previously mentioned, there were still many debates regarding sustainability balanced scorecards. However, Figure 9 shows two kinds of balanced scorecard structures incorporated with sustainability perspectives that researchers mainly accept.



**Figure 9.** Two Major Types of Sustainability Balanced Scorecards Design

Based on the expert interview, the way PT ISM currently implements its sustainability pillars through its sustainability governance framework is quite similar to SBSC Design 1. This means that at the corporate level, strategy and governance, PT ISM still separates its sustainability pillars from its business objectives. It was mentioned during the interview that most of the initiatives done at the corporate level push the business units and their functional groups to shift more toward sustainable business operations through various kinds of program training, awareness, and capacity building.

Through this research, some key takeaways and insights were obtained regarding the relationship between various business and sustainability activities for PT ISM. The analysis result shows that the production process efficiency objective from the resilience and innovation sustainability materiality topic has a strong correlation with the financial pillar of the balanced scorecard. As the measurement, total energy consumption and intensity are considered the most significant to achieve this objective.

These insights can be summarized as a key takeaway: PT ISM's focus on achieving its financial objectives can also be strongly aligned with its sustainability actions to innovate its production and operation process to be more efficient by reducing its total energy consumption and intensity through technology innovation, GHG emissions reduction, and offsetting initiatives.

Using the same approach, Indofood's focus on achieving its customer-related objectives can be aligned with its sustainability actions to deliver sustainable, responsible, and healthier products by minimizing salt, sugar, and fat content and making as much of an impact as possible on the people and community through technology innovations, food safety management, nutrition and health campaigns, and food portion control initiatives.

The focus to achieve its internal process related objectives can be aligned with Indofood's sustainability actions to have a more sustainable & responsible product & activity, efficient production & operation process, resilient business model & operation while also conserving & protecting environment by minimizing total HCV area usage; GHG emissions; energy intensity & consumption; waste; and negative impact to the community through raw material sourcing; technology innovation; multilevel stakeholders collaboration & partnership; and quality management initiatives.



Moreover, the last one is to achieve Indofood's organizational capacity related objectives can also be aligned with their sustainability actions to deliver sustainable & responsible product & business activity; efficient energy usage; protect & conserve environment; and positive social impact by minimizing total energy intensity & consumption and waste intensity through corporate policies & control procedures; quality management; and raw material sourcing initiatives.

The key takeaways that have been mentioned from this research can be developed as core values, principles, and guidelines for every business unit from a corporate-level perspective. Further research is strongly recommended to analyze the impact of sustainability-related activities from the business perspective at the operational level to fill the gaps that are left by this research. Qualitative analysis in the form of interviews at the managerial levels of the business units can be done, and it can be extended into quantitative analysis in the form of surveys and questionnaires at the functional levels. These studies aim to obtain a more holistic and comprehensive understanding of the relationship between sustainability and business-related activities at all levels of the company.

## 6. Conclusions

As a company that has products that are dominating the domestic market, it is essential for PT ISM to be responsible with its business operations and to be agile and adaptive with the markets that they are going to penetrate, specifically in some countries that have stricter standards and market awareness regarding sustainability. Nevertheless, it is also equally crucial for a company to have a solid strategic corporate level so that the core values, identity, and the quality of the business and products are maintained wherever the operational units are.

The objective of this research is to identify the crucial variables between sustainability and business-related activities within PT ISM's business operations. One of the major key findings of this research is that sustainability and business-related concepts can be connected by using the sustainability balanced scorecard framework. Overall, the balanced scorecard framework has four different dimensions to categorize its business activities, which are financial, customer, internal process, and organizational capacity. Each of these dimensions also has four different aspects that are used as a unit to be assessed, which are objectives, measures, targets, and initiatives.

Content analysis by using ATLAS.ti coding software was done to identify the coding scheme from the available datasets. The relationship between the concepts that had been identified in the coding scheme was also determined by using the co-occurrence analysis provided by the software. The sustainable balanced scorecard framework plays an important role as the foundation for this research to achieve its objectives. This is because of its ability to categorize various concepts within a data scope that mainly discusses sustainability implementations in a business operation, which, in this case, is a sustainability report.

The research results show that Indofood incorporates many of its sustainability-related activities into its internal processes and organizational capacity. Many sustainability-related indicators, such as total energy consumption and intensity, health and nutrition, and community development, are proven to have a significant relationship with business-related indicators such as cost efficiency, customer satisfaction, and employees' productivity. The key takeaways from this research can be developed into core values, principles, and guidelines for the corporate-level strategy through further studies at the operational levels.

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