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Evaluating Corporate Performance through a Sustainability Lens: A Sustainable Balanced Scorecard Approach

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Abstract: The study aims to evaluate the company's performance using the Sustainability Scorecard by focusing on Diyala General Electric Industries, one of the leading companies in the Iraqi market for the years 2022, 2023, and 2024. A descriptive-analytical approach was used to collect primary and secondary data, utilizing tools such as personal interviews and published reports to analyze the data and reports and test the research hypotheses, thereby helping to determine the nature of the relationship and the impact between the research variables. Using the five-perspective framework (financial, customers, internal operations, learning and growth, and sustainable community environment), the research concluded that traditional accounting systems fail to provide sufficient information on environmental and social impacts, as they prioritize economic information alone, resulting in incomplete performance evaluation. The study recommends: Comprehensive and balanced measurement indicators must be developed that cover all dimensions of sustainability, provided that these indicators are measurable, verifiable, and compliant with international standards.

Keywords: Evaluating Corporate Performance , Sustainability , Balanced Scorecard Approach.

1. Introduction and Literature Review

The modern world is witnessing a radical shift in business dynamics as a result of accelerating globalization and growing public awareness of the importance of social and environmental responsibility. The success of companies is not about being efficient and making money anymore. It is also about doing what is right for people and the planet. This means that companies need to think about the future and make sure they are not hurting the planet. They need to make sure that the people who come after us can take care of themselves.

In today's world things are changing fast and it is not easy to know what will happen next. Because of this companies need to think about the earth and people when they make decisions. They need to make sure they can stay in business for a time and compete with other companies. A time ago in 1992 Robert Kaplan and David Norton came up with a new way of thinking called the Balanced Scorecard. This is a framework that helps companies turn their ideas into four areas: money, customers how things are done inside the company and learning and growth. Even though this tool is helpful in getting things done it does not always show the picture of how a company is doing. This is because it does not think about how the company affects the earth and people.

Because of this people who have a stake in companies are putting a lot of pressure on them to be transparent and accountable. Companies need to think about the earth and people when they make decisions. The success of companies, like these companies is very important.

the Sustainable Balanced Scorecard (SBSC) as a strategic tool that integrates the three pillars of sustainability (economic, environmental, and social) into a single, integrated management system. It serves as an interface linking strategy formulation and sustainability reporting, enabling managers to make more efficient green investment decisions based on accurate financial and non-financial data. The significance of this research lies in the fact that the performance evaluation process is no longer merely a static monitoring process but has become a dynamic system aimed at enhancing organizational resilience and the ability to adapt to global crises. The use of the Sustainable Balanced Scorecard achieves the necessary balance.

In a study Burhany et al., the authors discussed measuring environmental performance using the Sustainable Balanced Scorecard which is balanced, comprehensive, and strategic—in an effort to obtain balanced and comprehensive performance information, utilizing the four perspectives of the Sustainable Balanced Scorecard (learning and growth, internal operations, customers, and financial) [1]. A heavy equipment manufacturing company (PT KUI) in Indonesia found that the company's environmental performance in the "Learning and Growth," "Internal Business Processes," and "Financial" perspectives was excellent, while performance in the "Customers" perspective was good.

A study by Ali et al., discussed the assessment and management of corporate sustainability performance using the Sustainable Balanced Scorecard [2]. The study employed an empirical approach (case study) focusing on a global company, the Generali Group, and was published in 2022. The study concluded that the SBSC is an effective tool for improving sustainability performance and implementing sustainability strategies within an organization, and that integrating social and environmental goals into the overall management system contributes to achieving profitable and sustainable results in the long term.

The study by Santos et al. addressed the Environmental Sustainability Balanced Scorecard: a strategic roadmap for inter-municipal collaboration aimed at developing a balanced scorecard for environmental sustainability (ESBSC) using a qualitative methodology that included document analysis, municipal-level surveys, and an interview with the Regional Coordination and Development Authority for Northern Portugal (CCDR-N) [3]. It was applied to five municipalities in Portugal in 2024 and resulted in the development of the ESBSC, a tool that adopts an integrated approach to sustainability focused on inter-municipal collaboration, thereby contributing to enhanced cooperation and improved environmental management performance among participating municipalities

A study Heebkhoksung proposed a sustainable balanced scorecard and supply chain model for tourism port management by suggesting a new approach to planning port development and supply chain management for tourism purposes using the (SBSC) model, with the aim of promoting sustainable and effective tourism conditions [4]. The study found positive correlations among all dimensions, meaning that a change in one dimension directly affects the others, which helps reduce future risks and improve tourism-oriented port management.

A study Jabbi et al. conducted a literature review on enhancing corporate financial performance through the Sustainable Balanced Scorecard (SBSC), aiming to explore the effectiveness of the SBSC as a tool for analyzing corporate financial performance [5]. The study employed a systematic literature review (SLR) of 18 peer-reviewed articles published between 2020 and 2024. The study concluded that the adoption of the SBSC

contributes to improving profitability, operational efficiency, and customer satisfaction and loyalty.

The study by Hardani et al., titled “The Link Between the Balanced Scorecard and Sustainability: An Empirical Study of Local Government-Owned Companies,” analyzed how the four dimensions of the Balanced Scorecard (financial, customers, internal processes, learning and growth) affect organizational performance and sustainable development in local government-owned companies (LGCs) [6]. It also examined the mediating role of organizational performance in achieving sustainability outcomes. Sample and period: The study employed a quantitative survey of 150 middle and senior managers at seven local government-owned companies in East Kalimantan Province, Indonesia. Data were collected in 2025. The study found that the customer and learning and growth perspectives significantly enhance organizational performance.

"Despite the growing consensus in recent literature [7][8] regarding the effectiveness of the Sustainable Balanced Scorecard (SBSC) in enhancing profitability and sustainability, most of these studies have focused on advanced economic environments or those with regulatory characteristics that differ from the environment in [Iraq]. Furthermore, previous studies have overlooked the operational mechanisms and cultural barriers that management faces when transitioning from traditional to sustainable performance scorecards in the [electrical industries sector]. Accordingly, this study aims to bridge this gap by developing a five-perspective model tailored to the local environment to integrate sustainable development into the strategies of Iraqi companies [9]

2.SBSC Conceptual Framework

2.1 SBSC: Origin and Definition

The origins of the Sustainable Balanced Scorecard can be traced back to the evolution of the traditional Balanced Scorecard (BSC), which was designed by Kaplan and Norton as a tool for measuring strategic performance across four key dimensions (financial, customers, internal processes, and learning and growth). As environmental and social challenges have escalated globally, the need arose to integrate sustainability dimensions into performance measurement systems, leading to the emergence of the Sustainability Balanced Scorecard (SBSC) as a strategic extension that incorporates environmental and social indicators into the cause –effect logic of the original scorecard [10].

In addition, in 2002, Figge and colleagues introduced the first comprehensive approach to integrating sustainability management into business strategy through the Sustainable Balanced Scorecard. This phase aimed to integrate the three dimensions of sustainability (economic, environmental, and social) into a single integrated management system rather than parallel systems. Two structural options emerged: the first integrates sustainability data within the four traditional perspectives, and the second adds a fifth, independent perspective for sustainability [11] In the years since, global interest in the Sustainable Balanced Scorecard has increased significantly, particularly with the growing focus on achieving the Sustainable Development Goals (SDGs). Studies have confirmed that linking the Balanced Scorecard framework to the Sustainable Development Goals has become an emerging research trend in the international literature, as economic units have sought to use the SBSC as a tool to integrate sustainability into the core of their strategic planning. [12].

After 2020, the focus shifted toward resilience and digital transformation in SBSC, as global crises such as the COVID-19 pandemic led SBSC to adopt the “Resilience-Oriented Sustainable Balanced Scorecard” (R-SBSC), which integrates sustainability performance with risk governance and organizational adaptability. The framework has also been integrated with digital transformation technologies such as artificial intelligence, the Internet of Things, and big data to provide real-time insights and accelerate decision-making [13]. After 2024, the latest generation represents the emergence of the “Dynamic Balanced Scorecard for Sustainability” (DBSCfS), designed to enable economic units to

monitor and manage unintended employee behaviors, such as “quiet quitting,” in volatile environments. This phase relies on integrating the “Dynamic Performance Management” (DPM) perspective with the SBSC to understand non-linear cause-and-effect relationships and ensure the continuity of units in the face of contemporary challenges [14][15]

The Sustainable Balanced Scorecard (SBSC) can also be defined as described in various literature,

where the Sustainable Balanced Scorecard is defined as the use of the traditional scorecard as a tool to measure an organization’s strategic sustainability by integrating economic, social, and environmental dimensions into the performance measurement system, so that the assessment is not limited to financial results alone, but also includes long-term impacts on society and the environment, thereby achieving integration between performance and sustainability. [16]

The Sustainable Balanced Scorecard has also been defined as a strategic management system that integrates sustainability indicators into the scorecard’s four traditional dimensions (financial, customers, internal operations, learning and growth) or by adding a fifth dimension dedicated to sustainability, with the aim of linking environmental and social goals to financial results through clear causal relationships.

It is also defined as a performance measurement framework that balances financial and non-financial indicators while integrating sustainability elements to ensure the achievement of short- and long-term goals, utilizing a strategy map that illustrates the interconnection between sustainability goals and implementation initiatives across various [17][18]

The Sustainable Balanced Scorecard is also considered a development of the traditional Balanced Scorecard aimed at supporting sustainability practices within the organization by incorporating environmental and social dimensions into the strategic planning and performance measurement process, thereby enhancing the creation of long-term value for stakeholders. [19][20]

2.2 Objectives of the Sustainable Balanced Scorecard (SBSC):

According to several researchers, some of the SBSC’s objectives can be summarized as follows:

A. The SBSC aims to integrate economic, environmental, and social dimensions into an economic entity’s strategic management system, thereby helping to translate the sustainability strategy into measurable objectives and performance indicators. [21]

B. It aims to translate the sustainability strategy into measurable performance indicators. In addition, the SBSC seeks to convert sustainability goals into a set of key performance indicators that can be measured and monitored, thereby improving the decision-making process within the organization. [22]

C. SBSC aims to improve the long-term strategic performance of economic units by balancing financial and non-financial indicators, which contributes to achieving a sustainable competitive advantage [23]

D. SBSC aims to support the process of making and implementing management decisions related to sustainability, as well as to provide management with integrated information on economic, environmental, and social performance, thereby helping to support the management decision-making process, achieve optimal resource utilization, and promote sustainability in economic units. [24].

2.3 Perspectives of the Sustainable Balanced Scorecard (SBSC):

The Balanced Scorecard transforms the economic unit’s strategy into an integrated set of objectives and indicators that serve as key success factors for the economic unit. These indicators consist of a set of financial and non-financial perspectives, which are divided into five perspectives: [25]

A. The Financial Perspective: Financial metrics are a fundamental component of the Balanced Scorecard, as they help achieve the goal of determining profit levels within the business unit by reducing costs while also achieving growth targets. Financial goals vary depending on the business unit's stage in its life cycle. For example, financial objectives in the growth stage focus on increasing market share in new markets and acquiring new customers, whereas in the maintenance stage, they focus on cash flow.

The economic unit is concerned with cash flow metrics, specifically investments that yield guaranteed medium-term returns. Financial ratios and indicators can be categorized as follows: [26]

- Liquidity Ratios: These indicate the economic unit's ability to meet its short-term obligations and are based on the relationship between current assets and current liabilities. They are divided into

- Current ratio - Quick ratio - Cash ratio

- Activity ratios: These ratios measure the economic unit's efficiency in using available resources to achieve the best return. The most important of these ratios are: Inventory turnover ratio - Accounts receivable turnover ratio - Total asset turnover ratio

- Profitability Ratios: These ratios reflect the extent to which an economic entity efficiently utilizes available resources to achieve the highest profit margin. Among these ratios are:

- Gross Profit Margin - Net Profit Margin.

B. The Customer and Stakeholder Perspective: [27] Focusing on the customer and meeting their needs, with the strategic goal of achieving customer satisfaction and gaining their loyalty, which in turn leads to an increase in the economic unit's market share, This perspective also includes assessing the organization's reputation and the extent of stakeholders' (including investors and the community) trust in the sustainable practices adopted by the economic unit, which contributes to increasing market share and attracting environmentally conscious customers.

As for the metrics that make up this perspective, they are numerous, including after-sales services, low cost, improved quality, and on-time delivery.

- Market share metrics are measured by dividing the project's total sales volume by the sector's total sales volume

- Customer loyalty metrics can be calculated by adding the number of new customers to the number of existing customers and dividing that sum by the number of existing customers.

C. Internal Operations Perspective: [28] This perspective focuses on internal operations by seeking to create value for the product or service, the effects of which are reflected in customer satisfaction and an increase in the economic value of the unit in the market, through the following stages: A. The innovation stage; B. Operational processes; C. After-sales services. Additionally, internal processes are redesigned to incorporate eco-efficiency, such as reducing energy and water consumption, lowering carbon emissions, and waste management through recycling. It also focuses on compliance with strict environmental standards (such as ISO 14001) and improving the supply chain by selecting suppliers who adhere to environmental standards, which ultimately leads to reduced operational risks and excellence in overall performance.

D. The Learning and Growth Perspective: [29] This perspective focuses on developing the capabilities of individuals working within the economic unit, as they represent the unit's infrastructure, as well as on how to use modern technologies to address the era of globalization and openness to the world in order to fulfill the desires and needs of customers, in addition to the needs and desires of owners. It aims to build a "sustainable culture" through training and awareness programs for employees on environmental issues, and promoting green innovation in operations and products. The

approach also seeks to motivate employees and enhance their technological and knowledge-based capabilities to enable them to adapt to complex environmental challenges. The extent to which employees' goals are achieved can be measured through a composite metric based on three key pillars: a) Employee satisfaction: the extent of employee participation in decision-making. The ability to communicate information to employees to help them perform their work effectively. B. Employee retention: This involves focusing on determining the degree of employee retention and their sense of belonging to the organization. C. Employee productivity.

E. Community Perspective: Economic entities are part of the community in which they operate and must contribute to the community's well-being to ensure their continued success; They must select indicators and metrics for their environmental and social performance, then present this information in a systematic manner that can be used in the performance evaluation process, and communicate this information to relevant stakeholders, whether internal or external. The inclusion of this perspective is due to two main reasons, as follows: - First reason: Social and environmental performance constitute an essential part of the economic unit's strategy at present. Second reason: Expanding the role of the Balanced Scorecard technique to conduct performance evaluation in a manner appropriate to the changes in the modern environment Activities related to environmental and social performance are as follows: Employee-related activities: These are activities aimed at improving the overall well-being of employees, such as health prevention and social security initiatives, among others. Activities related to community interaction: These are activities that benefit the community as a whole, such as donations to support funds for the poor or funds for students in need. Activities related to customer protection: These are activities that seek to achieve customer satisfaction, such as focusing on product promotion and avoiding deception of customers. Activities related to environmental protection: These are activities carried out by the economic unit to reduce or minimize pollution in all its forms, whether air, water, or land pollution caused by landfills, and the economic unit must disclose these damages for the purpose of addressing them.

2.4 Comprehensive Approach to Performance Evaluation

Before addressing the concept of performance evaluation, it is necessary to understand performance in general, as performance represents an economic unit's ability to achieve the desired results that align with established plans and objectives, through the optimal utilization of available resources. Furthermore, performance is nothing more than a reflection of an economic unit's ability to achieve its set goals efficiently and effectively.

Evaluation is defined linguistically as adjustment, reform, and correction of distortions; terminologically, it refers to an objective judgment of a particular action. The performance evaluation process is a diagnostic and systematic process aimed at examining and analyzing an organization's financial and operational records to transform raw data into meaningful indicators. The importance of this process lies in its role as a bridge linking traditional accounting with strategic decision-making, as it enables management and investors to understand the "story" of the organization's operational health, identify strengths to reinforce and weaknesses to address, thereby ensuring sustainable growth. The performance evaluation process, as described in various literature, can also be defined Performance evaluation has been defined as the process of examining economic units, projects, budgets, and other financial events to determine their stability, solvency, liquidity, and profitability, with the aim of justifying financial investment in them. The performance evaluation process can also be defined as the systematic analysis of changes in three fundamental dimensions that form the pillars of an economic unit's financial operations: profitability (the efficiency of converting revenue into profits), debt-repayment capacity (fulfilling long-term obligations), and the capacity for sustainable growth in assets and revenue.

The performance evaluation process refers to the periodic and recurring assessment of the financial position of economic units that provide financial assistance, with the aim of ensuring their liquidity and profitability and avoiding non-performing loans, thereby enabling them to continue offering their products and services and generating profits from invested capital. Performance evaluation has been defined as a vital management tool aimed at integrating the requirements and interests of all parties affected by the economic unit (such as shareholders, suppliers, creditors, employees, and the government) into the evaluation system, to ensure a balance between financial returns, social responsibility, and regulatory compliance. Finally, it is defined as an assessment of the impact of operational policies on key financial indicators, with a focus on balancing business growth and risk management to ensure the financial stability and operational efficiency of the economic entity.

2.5 Objectives of Performance Evaluation:

It is worth noting that the performance evaluation process has significant objectives across many different aspects and levels, which can be summarized as follows:

- **Assessing the effectiveness of financial and expenditure policies:** In the context of economic budgets, the evaluation aims to ensure that expenditures efficiently achieve the desired economic outcomes, rather than being merely symbolic
- **Ensuring regulatory compliance and safety:** Performance evaluation in economic units seeks to monitor the extent to which units adhere to regulatory guidelines and to ensure their financial stability and resilience in the face of economic changes
- **Determining investment feasibility and future risks:** Modern quantitative evaluation aims to link profitability indicators to risk metrics such as “Value at Risk” (VaR) to determine a business unit’s ability to survive and grow under volatile economic conditions
- **Measuring the impact of digital transformation on resource efficiency:** Evaluation in modern commercial economic units aims to establish a system that clearly measures the extent to which digital investment and employees’ technological skills contribute to improving operations and achieving a competitive advantage.

Performance Evaluation Indicators:

The performance evaluation process in economic units is based on the following set of indicators:

- **Efficiency:** Efficiency is defined as the use of the minimum amount of physical and human resources of the highest quality to produce the greatest quantity of goods and services. The efficiency indicator generally refers to the relationship between inputs and outputs and measures asset management efficiency: through asset turnover, inventory turnover, and operational efficiency: which is represented by the ratio of operating expenses to operating income; and capital expenditure efficiency: measured by the ratio of capital expenditure to total expenditure
- **Effectiveness:** Effectiveness represents the degree or extent to which managers have achieved the desired outputs (targets), i.e., a focus on outputs (desired objectives). Therefore, for an administrative manager to achieve effectiveness, they must focus on outputs (desired objectives). Asset quality, marketing effectiveness, and growth are measured using the annual revenue growth rate, which reflects the extent of market and customer acceptance of the economic unit’s products.
- **Economy:** This indicator focuses on the costs of the resources used to carry out activities while ensuring quality. The economy indicator also refers to ensuring that the economic unit’s resources are used at the lowest possible cost while maintaining the required quality and ensuring that production meets specified quantities.
- **Environment:** The economic unit’s environment is divided into two parts: the internal environment and the external environment. The internal environment relates to

working and operational conditions within the economic unit, while the external environment relates to all conditions surrounding the economic unit—whether political, social, or economic—that affect the economic unit’s current and future performance and resource sustainability: Environmental performance is measured by the use of environmentally friendly materials to reduce industrial emissions and define social responsibility: It is measured by the donation ratio and contribution to community development

2.6 The Relationship Between SBSC and the Performance Evaluation Process:

The relationship between performance evaluation and the Sustainable Balanced Scorecard (SBSC) represents a strategic shift aimed at integrating non-financial, environmental, and social dimensions into a comprehensive evaluation framework that ensures the long-term sustainability of economic units

- Expanding the scope of evaluation beyond financial indicators: The SBSC adds non-financial perspectives—such as customers, internal operations, and learning and growth—to the performance evaluation process. Consequently, performance evaluation is no longer limited to traditional metrics (such as ROA and ROE), which are no longer sufficient to describe the continuous evolution of modern performance

- Integrating sustainability criteria: SBSC enhances the performance evaluation process by integrating environmental and social governance dimensions as essential components for risk mitigation and the creation of sustainable value. It is currently recommended that these criteria be incorporated into regulatory frameworks for corporate performance evaluation to align with global sustainability standards.

- Shift from a shareholder to a stakeholder perspective: The symbiotic relationship between them dictates a new approach to performance evaluation that not only serves shareholder returns but also integrates the requirements of all parties affected by the economic entity (such as employees, creditors, the government, and society) to achieve mutual benefit, and incorporating stakeholder needs into performance evaluation systems is an inevitable trend in modern management.

- Balancing profitability and responsibility: This relationship helps economic entities balance sometimes conflicting goals, such as achieving economic profitability and adhering to environmental and social responsibility, ensuring harmonious coexistence with the surrounding environment. This integration also contributes to building trust with stakeholders, which is vital for the growth and stability of the economic entity.

3. Research Methodology

3.1 Study Tools Description

The researcher relied on an analysis of the scientific literature and previous studies related to the topics of the sustainable balanced scorecard as well as performance evaluation processes in order to complete the theoretical framework of the research in a way that supports the practical aspect. On the practical, applied side, the descriptive-analytical approach was used to collect primary and secondary data, utilizing tools such as personal interviews and published reports to analyze the data and reports and test the research hypotheses, thereby helping to determine the nature of the relationship and the influence between the research variables.

3.2 data collection method

Analysis of Diyala Electric Industries' Financial Reports for the Years 2022–2024

3.3 Aims of Study

The Sustainable Balanced Scorecard is a modern management tool that still requires further clarification by economic units in order to be implemented as an integrated approach capable of contributing to performance measurement and evaluation,

information technology management, and improved decision-making within economic units.

- Develop a model for a sustainable balanced scorecard that integrates the three pillars of sustainability (economic, environmental, and social)
- Identify appropriate key performance indicators (KPIs) for measuring sustainability performance based on global standards
- Assess the effectiveness of the scorecard in translating the sustainability strategy into concrete and measurable actions
- Explore the role of the scorecard in enhancing competitive advantage and evaluating long-term performance.

3.4 Problem and hypotheses of the study

The research problem lies in the inability of traditional accounting systems to provide sufficient information on environmental and social impacts, as they prioritize economic information alone; furthermore, the traditional Balanced Scorecard (BSC) remains limited in its ability to address the imperatives of sustainability and organizational resilience in the face of complex global risks. There is a challenge in identifying the gap between strategy and its implementation, as most economic units do not have full knowledge and awareness of sustainability commitments and indicators, and therefore a weakness in translating these indicators into tools for measuring actual performance. Herein lies the research problem in answering the following questions:

- To what extent does the application of the Sustainable Balanced Scorecard (SBSC) contribute to integrating the three dimensions of sustainability (economic, environmental, and social) into the core strategy of the economic unit?
- What is the nature of the relationship between the framework's perspectives (such as learning and growth and internal processes) and the enhancement of the level of accounting disclosure regarding environmental and social performance?
- To what extent have economic units adopted the various BSC models (whether by integrating indicators within the four perspectives or adding a fifth independent perspective), and how effective are these models for management accounting and strategic control in comprehensively assessing the unit's performance?
- What is the role of the sustainable balanced scorecard in improving operational efficiency as well as reporting on the economic unit's financial performance?

From this perspective, the research problem is expressed in the following question:

The use of the Sustainable Balanced Scorecard (SBSC) improves the quality and comprehensiveness of information regarding the economic, environmental, and social dimensions disclosed by economic entities, which enhances the effectiveness of the performance evaluation process and, consequently, strengthens the entity's ability to achieve sustainable development and long-term competitive advantage.

4. Results

4.1 Measuring Study Variables

Table 1. Available, designed and produced capacities for the years 2022, 2023 and 2024.

Year	Design Capacity (per unit)	Available Capacity (per unit)	Planned Production (per unit)	Actual Production (per unit)	Design Capacity Achievement Rate	Available Capacity Achievement Rate	Planned Production Achievement Rate

2022	580,000	482,000	224,000	41,300	7.12%	8.57%	18.44%
2023	580,000	427,000	236,000	38,000	6.55%	8.90%	16.10%
2024	760,000	427,800	256,000	115,200	15.16%	26.93%	45.00%

We conclude from Table (1) that the performance of the economic unit is in an upward transformation, as when focusing on the actual production rates compared to the design, available and planned plan, it appears that production in 2022 was at its lowest level, as actual production did not exceed 7.12% of the design capacity and 18.44% of the planned production. In 2023, the decline in the percentage of actual production achieved compared to the previous year continued. However, 2024 marked a turning point, as this year saw a qualitative leap: design capacity rose to 760,000 units, and actual production increased significantly to 115,200 units, achieving 45% of planned production.

The decline in performance between 2022 and 2023 to multiple challenges, including unfair competition and the opening of the local market to products imported from neighboring countries at low prices despite their sometimes poor quality, in addition to a lack of protection and the absence of effective legislation or measures to protect domestic products, as well as logistical and technical issues, including the obsolescence of current facilities and the Ministry of Electricity's reluctance to purchase the company's products which are primarily manufactured to meet the Ministry's needs.

However, the significant improvement that occurred in 2024 is attributed to strategic decisions and changes in demand, driven by the expansion of production lines and the commissioning of the new steam iron factory, which has a design capacity of up to 180,000 units per year, contributing to an increase in total capacity, production, and sales.

Implementation of the Balanced Scorecard for Performance Evaluation:

A. **Financial Perspective:** The researcher used multiple financial perspective measures, as shown in Table (2), based on the available data, for the purpose of measurement and achieving results for the company under study.

Table 2. Calculation of Financial Perspective Indicators for the Years 2022–2023–2024.

Measurement	2022			2023			2024		
Asset Turnover Ratio	37,594,130,953	158,073,756,465	23.78%	60,458,418,686	159,520,016,864	37.90%	95,100,054,084	180,758,745,191	52.61%
Return on Equity	(1,281,413,435)	73,053,356,306	-1.75%	(14,471,453)	70,499,523,007	-0.02%	35,561,964	70,688,666,357	0.05%
Operating Expense Ratio	60,438,838,006	59,174,809,975	102.14%	81,095,302,167	81,292,808,801	99.76%	115,509,492,120	115,650,054,084	99.88%
Debt Ratio	85,020,400,159	158,073,756,465	53.79%	89,020,493,857	159,520,016,864	55.81%	92,604,078,834	180,758,745,191	51.23%

Return on Assets	(1,281,413,435)	158,073,756,465	-0.81%	(14,471,453)	159,520,016,864	-0.01%	35,561,964	180,758,745,191	0.02%
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Table (2) shows an analysis of the calculation of financial ratio indicators.

- **Asset turnover ratio:** The ratio shows a clear and significant increase, rising from 23.78% in 2022 to 37.90% in 2023, and reaching 52.61% in 2024.. This reflects increasing efficiency in utilizing the economic unit's assets to generate sales and achieve operational goals

- **Return on Equity:** This indicator has shown a gradual improvement from a loss to profitability. After recording a loss of (1.75%) in 2022, this loss narrowed significantly to (0.02%) in 2023 and then turned into a positive return (profit) of 0.05% in 2024, indicating the beginning of a recovery in management's efficiency in maximizing shareholder value

- **Operating Expense Ratio:** The ratio improved in 2023 and 2024 compared to 2022, when expenses exceeded revenues (102.14%) The ratio decreased and stabilized at 99.76% and 99.88% for the last two years, respectively, indicating the unit's ability to cover its operating costs from its revenues, although the margin remains very narrow

- **Debt Ratio:** The company continues to rely heavily on external financing, with the ratio ranging between 51.23% and 55.81% over the three years. Despite the decrease in the debt ratio to 51.23% in 2024, it remains high, reflecting the financial risk associated with debt (loan) repayment.

- **Return on Assets (ROA):** This indicator reflects the company's financial liquidity. The situation improved from a loss (0.81%) in 2022 to a smaller loss (0.01%) in 2023, and then turned positive, achieving a profit of 0.02% in 2024. This improvement is closely linked to increased production, sales, and revenue, as well as improved control and cost reduction.

B. Customer Perspective: This perspective encompasses the metrics that the economic entity adopts to achieve customer satisfaction. These indicators are divided into: market share, customer retention, and customer contribution to revenue. These indicators can be measured using the data in Table (3).

Table 3. Calculation of Customer Satisfaction Rates for the Years 2022–2023–2024.

Measurement	2022			2023			2024		
Market Share	37,594,130,953	41,353,544,048	-9.1%	60,458,418,686	37,594,130,953	60.8%	95,100,054,084	60,458,418,686	57.3%
Revenue Contribution by Customer	-1,281,413,435	3,400	\$376,886.30	-14,471,453	3,300	\$4,385.29	35,561,964	3,850	\$9,236.87

Table (3) shows a significant increase in the economic unit's market share, with its sales (revenues) jumping from 37.5 billion dinars in 2022 to over 90 billion dinars in 2024, representing an annual growth rate of 57%. This growth enabled the economic unit to move from a loss-making to a profitable phase, increasing its contribution margin from losses in 2022 and 2023 to profitability in 2024. Furthermore, its customer base expanded, with the

unit successfully increasing its customer base from 3,300 in 2023 to 3,850 in 2024, thus enhancing revenue and profitability.

C. Internal Processes Perspective: After identifying the main factors for attracting customers, the economic unit seeks to meet their needs and desires for the company's products and services by renewing internal processes and the type of technology used, where the performance of the economic unit can be measured using a set of metrics specific to this perspective, as shown in Table (4).

Table 4. Calculation of Internal Operations Index Ratios for the Years 2022–2023–2024.

Measurement	2022			2023			2024		
Daily production rate	41,300	250	165.20	38,000	250	152.00	115,200	250	460.80
Inventory turnover rate	37,594,130,953	50,351,401,878	0.75	60,458,418,686	46,640,660,610	1.30	95,100,054,084	36,619,221,197	2.60
Utilization of available capacity	41,300	482,000	8.6%	38,000	427,000	8.9%	115,200	427,800	26.9%

Table (4) shows a decline in daily production rates between 2022 and 2023 (from 165.20 to 152.00), followed by a rise to 460.8 in 2024, indicating improved production line efficiency. Inventory turnover also demonstrates significant improvement in resource management, rising from 0.75 in 2022 to 1.30 in 2023 and further to 2.60 in 2024. This reflects a decrease in inventory accumulation and a faster conversion of inventory into revenue. Capacity utilization, however, showed a decline in both 2022 and 2023 (8.6% and 8.9%, respectively), before rising to 26.9% in 2024. Despite this substantial improvement, significant unused capacity (over 70%) remains.

D. The Learning and Growth Perspective: This perspective includes a number of measurement indicators, such as research and consulting services, and employee training and development, as shown in Table (5):

Table 5. Calculation of the Learning and Growth Perspective Scale Scores for the Years 2022–2023–2024.

Measurement	2022			2023			2024		
Growth rate of consulting services	46,355,349	48,010,897	-3.45%	47,644,969	46,355,349	2.78%	50,530,000	47,644,969	6.06%
Growth rate of employee training and development expenses	24,833,222	28,144,319	-11.76%	34,501,530	24,833,222	38.93%	39,120,000	34,501,530	13.39%

E. The Perspective of a Sustainable Social Environment: The contemporary business environment requires economic entities to be effective in their environmental and

social performance alongside their economic performance. The inclusion of environmental and social dimensions in the SBSC is intended to expand its role in measuring the performance of economic entities through a set of indicators, as follows:

Table 6. Calculation of the Sustainable Community Environment Index for the years 2022–2023–2024.

Measurement	2022			2023			2024		
Employee Benefits	7,781,076	7,946,631	-2.08%	8,050,357	7,781,076	3.46%	8,313,000	8,050,357	3.26%
Social Security Contributions	21,522,126	60,438,838,006	0.0356%	31,215,670	81,209,135,327	0.0384%	34,230,000	115,509,492,120	0.0296%
Transportation Allowances	48,010,897	1,520	\$ 31,586	64,074,269	1,543	\$ 41,526	66,830,000	1,622	\$ 41,202
Ratio of Environmental Costs to Production Costs	1,818,480,962	13,147,252,335	13.8%	1,784,205,448	13,771,545,394	13.0%	1,962,625,993	14,046,976,302	14.0%
Ratio of Environmental Protection Costs to Total Environmental Costs	1,294,559,536	1,818,480,962	71.2%	1,242,934,889	1,784,205,448	69.7%	1,354,799,029	1,837,731,611	73.7%
Reduction of Environmental Costs to Operating Costs	1,818,480,962	60,456,223,410	3.0%	1,784,205,448	81,307,280,254	2.2%	1,926,941,884	84,559,571,464	2.3%
Internal Failure	349,857,382	1,818,480,962	19.2%	363,528,978	1,784,205,448	20.4%	356,258,398	1,873,415,720	19.0%

We conclude from Table (6) which presents the Sustainable Community Environment Measurement Index for the years (2022, 2023, 2024), that the social dimension indicates a remarkable improvement in employee services; as it moved from a negative rate (-2.08%) in 2022 to a stable positive rate exceeding 3% in 2023 and 2024, reflecting an improvement in employee welfare policies. As for transportation and social security allowances, the data show stability in the levels of spending on social security, in conjunction with an increase in the amounts allocated for transportation allowances, reflecting an increasing interest in the material welfare of employees.

As for the relationship between the environment and production costs, the company has succeeded in maintaining a stable balance, as the ratio of environmental costs to production ranged between 13% and 14%, which reflects a consistent approach to integrating environmental standards into the manufacturing process. In a remarkable shift towards proactive sustainability, the percentage of spending on environmental protection jumped to 73.7% by 2024, which means that the greater weight of the environmental budget is now directed towards prevention and preemptive protection instead of merely addressing damages after they occur. At the efficiency level, it is noted that these environmental commitments did not constitute a heavy financial burden, as their percentage remained low at about 2.3% of total operating costs. Finally, internal quality

recorded a tangible improvement in 2024, as the internal failure rate decreased from 20.4% to 19.0%, which is a positive indicator that reflects an improvement in process discipline and output quality.

4.2 Results and Testing of Study Hypotheses

The application of this framework with its five dimensions proved the validity of the research hypothesis, as it was shown that adopting the Sustainable Balanced Scorecard (SBSC) model improved the quality of environmental information disclosure, which positively impacted the effectiveness of the overall performance evaluation. This model succeeded in bridging the gaps left by traditional accounting systems that were limited to financial figures only. Although the financial and operational results at the beginning (2021–2022) were not at the desired level due to weak protection of the national product and outdated equipment, the integration of sustainability indicators provided an integrated vision that not only developed the evaluation process but also contributed substantially to gaining the trust of the community and stakeholders.

5- Conclusions and recommendations

- Traditional accounting systems are no longer sufficient to assess the environmental and social impact of economic units due to their excessive focus on material information and material profits only. Therefore, it has become necessary to integrate sustainability dimensions as an authentic, not complementary, strategic element in the assessment process. Hence, the importance of the Sustainable Balanced Scorecard (SBSC) emerges as a tool that enhances efficiency and profitability and supports intangible aspects such as reputation and innovation, provided that there is a serious commitment from senior management to instill a culture of sustainability within the entity of the economic unit.
- To ensure the success of this transformation, all stakeholders employees, customers, suppliers, and the local community must be involved in designing and implementing this framework. Furthermore, investment in human capital is essential through intensive training programs that enhance employee awareness of how to integrate sustainable practices into their daily tasks.
- The study highlights the urgent need to educate employees about the importance of sustainability and how to integrate its practices into their daily tasks. It emphasizes the necessity of clearly linking the company's sustainability goals with those of the public institution to ensure alignment and synergy of efforts. Furthermore, it stresses the importance of adopting fair and comprehensive measurement mechanisms to evaluate performance in all areas of sustainability, in accordance with international standards and guidelines.
- The successful development and implementation of the Sustainable Balanced Scorecard (SBSC) requires the involvement of all stakeholders and leveraging their insights to enhance decision-making. This scorecard serves as a strategic tool enabling economic units to understand the dimensions of their impact on the environment and society, and helping them identify avenues for continuous improvement. Ultimately, economic units must activate this tool to make a tangible difference, demonstrating their genuine and serious commitment to the principles of sustainability.

Investing in human capital is essential through providing intensive training and awareness programs for employees on the importance of sustainability and how to integrate its practices into their daily work, thereby fostering a culture of learning and growth within the organization. It is also recommended to expand disclosure by independently measuring and publishing environmental and social costs (such as

employee satisfaction levels and contributions to social development) to enhance transparency and build trust with investors and the surrounding community.

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