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UTILIZING THE BALANCED SCORECARD TO MANAGE THE SUSTAINABLE DEVELOPMENT OF ENTERPRISES

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Анотація: *У цій роботі досліджується застосування Сбалансованої карточки показників (СКП) у управлінні сталого розвитку (СТ) підприємств на тлі глобалізації економіки та посилення екологічних проблем. З використанням методів літературного аналізу, аналізу випадків, опитувань та експертних інтерв'ю систематизовуються внутрішні зв'язки між теоріями СКП та СТ. Після вивчення стану реалізації СТ підприємств у 2025 році дослідження демонструє досягнення, зокрема, зростання рівня використання відновлюваних джерел енергії глобальними підприємствами до 30%, а також виділяє виклики, такі як економічні збитки, спричинені кліматичними змінами, які перевищують 50 мільярдів доларів США. Для перевірки ефективності застосування СКП за чотирма основними напрямками — фінанси (зелений дохід від інвестицій), клієнти (пізнання екологічних зусиль), внутрішні процеси (зниження споживання енергії) та навчання та розвиток (тренування персоналу) — обрані два типові випадки: підприємства Intel (виробництво напівпровідників) та HiSilicon (розробка мікрочипів). На цій основі розробляються конкретні стратегії імплементації для кожного напрямку, а також пропонується шлях впровадження СКП, який включає розробку стратегічної карти, збір даних, визначення ключових факторів успіху (рухову силу з верхівки та співпрацю між відділами) та оцінку ефективності. Дослідження доводить, що СКП дозволяє ефективно подолати обмеження традиційних управлінських моделей, орієнтованих на фінанси, та забезпечує підприємствами системний інструмент для Балансування економічних, екологічних та соціальних цілей з метою забезпечення довгострокового сталого розвитку.*

Ключові слова: *Сбалансована карточка показників (СКП); Сталий розвиток (СТ); Управління підприємством; Управління продуктивністю; Аналіз випадків*

Abstract. *This study explores the application of the Balanced Scorecard (BSC) in corporate Sustainable Development (SD) management against the backdrop of global economic integration and worsening environmental issues. By combining literature research, case analysis, questionnaire surveys, and expert interviews, it systematically sorts out the internal connections between BSC and SD theories. After examining the current state of corporate SD in 2025, the study reveals achievements such as the global corporate renewable energy utilization rate reaching 30%, while also pointing out challenges like climate - related economic losses exceeding 500 billion US dollars. Two typical cases, Intel (semiconductor manufacturing) and HiSilicon (chip design), are selected to verify the application effects of BSC in four major dimensions: finance (green return on investment), customers (environmental protection recognition), internal processes (energy consumption reduction), and learning and growth (employee training). On this basis, specific implementation strategies for each dimension are constructed, and a BSC implementation path covering strategic map drawing, data collection, key success factors (top - level leadership and cross - departmental collaboration), and effect evaluation is proposed. The research shows that BSC can effectively break through the limitations of traditional finance - oriented management models and provide enterprises with a systematic tool to balance economic, environmental, and social goals and achieve long - term sustainable development.*

Key words: *Balanced Scorecard (BSC); Sustainable Development (SD); Corporate Management; Performance Management; Case Study*

Introduction.

Against the backdrop of the interwoven global economy and environmental issues, sustainable development has become a core global topic. The United Nations' 2030 Sustainable Development Goals (SDGs) encourage enterprises to seek a new balance among economic, environmental, and social responsibilities. However, enterprises face multiple challenges: at the resource level, data from the International Energy Agency (IEA) shows that the contradiction between supply and demand of traditional fossil energy is prominent, and water and land shortages occur frequently; at the environmental level, pollution issues have drawn widespread public attention, and strict regulatory policies have increased the compliance pressure on enterprises; at the social level, the development of artificial intelligence forces employees to transform their skills, and employees' demands for work-life balance and rights protection have put forward higher requirements for enterprise management. The World Economic Forum predicts that the economic losses caused by extreme climate will reach 500 billion US dollars in 2025.

The drawbacks of the traditional management model centered on financial indicators have become prominent. The excessive pursuit of short-term benefits leads to resource waste, environmental management deficiencies, and damage to employee rights. A manufacturing enterprise suffered a damaged reputation due to pollution and labor disputes, which is a typical case. The Balanced Scorecard (BSC) balances multiple goals through a four-dimensional framework of finance, customers, internal processes, and learning and growth. Applying it to sustainable development management can effectively evaluate the economic, environmental, and social performance of enterprises and provide support for strategic decision-making. This study, based on theoretical analysis and case studies, explores feasible paths for enterprises to achieve sustainable development goals.

Main text. ***Theoretical framework.***

The Balanced Scorecard (BSC) Theory. In the 1980s, with intensified market competition, diversified consumer demands, and rapid technological advancements,

the shortcomings of the traditional performance evaluation system based solely on financial indicators became increasingly evident. In 1992, Kaplan and Norton proposed the BSC theoretical framework, establishing a comprehensive four-dimensional evaluation system covering finance, customers, internal business processes, and learning and growth. This theory broke away from the single financial dimension, emphasizing the dynamic cycle and strategic synergy among the four dimensions, providing systematic support for enterprise management.

Corporate Sustainable Development (CSD) Theory. The Corporate Sustainable Development (CSD) Theory emphasizes the synergy of the three-dimensional goals of economy, society, and environment, and originates from the global reflection on environmental issues in the late 20th century. Its core is "a development model that meets the needs of the present without compromising the ability of future generations to meet their own needs", which forms a distinct contrast with the traditional profit-oriented business philosophy.

The Inherent Connection Between BSC and SD. The two are highly aligned at the strategic, performance, resource, and synergy levels. The four-dimensional framework of BSC can accurately map SD goals, transform macro-strategies into quantifiable specific indicators, and promote the implementation of SD goals through multi-dimensional evaluation, dynamic monitoring, and optimal allocation of resources.

Table 1 Comparison Table of Differences between Traditional Model and Sustainable Development Model

Comparison project	Traditional development model	Enterprise sustainable development model
Development Goals	Strive for the maximization of short-term economic benefits and focus on financial indicators.	Strive for the coordinated development of economy, society and environment, and focus on the long-term comprehensive benefits.
Resource Utilization	Conventional type, relying on natural resources, with low efficiency and high waste.	Intensive type, emphasizing efficient utilization and recycling, reducing consumption
Decision basis	Mainly based on financial data and market demand	Take into full consideration various factors including economy, society and environment.
Typical case	A clothing company neglects environmental protection and the rights of its employees	Intel has reduced energy consumption by 25% and has made the supply chain 85% greener.

The Current Status and Challenges of Corporate Sustainable Development in 2025.

In 2025, global enterprises are faced with both opportunities and challenges in sustainable development. According to data from UNCTAD, the average annual revenue growth rate of enterprises engaged in sustainable development has reached 8.5% in the past five years, which is 3.2 percentage points higher than that of traditional enterprises. A survey by ILO shows that 70% of enterprises have improved their employee training systems. Data from IEA indicates that the global utilization rate of renewable energy by enterprises has reached 30%. However, the challenges remain severe: the rising risks in the supply chain, issues such as pay equity caused by changes in the labor market, losses of 500 billion US dollars due to extreme climates, and the continuous increase in pressure for environmental compliance.

Case Study: Practices of Intel and HiSilicon.

Case Selection and Research Design.

This study selects Intel (manufacturing) and HiSilicon (design) as typical cases, adopts the case study method, and combines on - site research, interviews and document analysis to compare the performance changes before and after the implementation of the Balanced Scorecard (BSC).

Intel's Practice.

Intel introduced the BSC in 2020 to address challenges of high energy consumption and supply chain issues. After implementation:

Financial Perspective: The return on investment (ROI) of green technologies increased from 10% to 25%, and the proportion of revenue from sustainable products rose from 30% to 50%.

Customer Perspective: Customers' recognition of the company's environmental protection efforts went up from 60% to 80%.

Internal Process Perspective: Energy consumption per unit decreased by 25%, and the coverage rate of the green supply chain increased by 25%.

Learning and Growth Perspective: The participation rate in training exceeded 98%, and the number of innovation proposals doubled.

HiSilicon's Practice.

HiSilicon introduced the BSC in 2021 to balance R&D efficiency and social responsibility. After implementation:

Financial Perspective: The R&D cost control rate increased to 85%, and the return on green projects reached 20%.

Customer Perspective: Customers' satisfaction with product performance improved from 78% to 88%.

Internal Process Perspective: Agile development was adopted, and the R&D cycle was shortened by 30%.

Learning and Growth Perspective: The participation rate in skill training exceeded 95%, and the satisfaction with cross - departmental collaboration increased by 10%.

Table 2 Comparison of Enterprise Sustainable Development Performance (2020 vs 2025)

Indicators	Intel (2020)	Intel (2025)	Hisilicon (2021)	Hisilicon (2025)
Proportion of sustainable product sales	30%	50%	-	-
R&D cost control rate	-	-	70%	85%
Reduction rate of energy consumption per unit product	-	25%↓	-	-
Employee Training Participation Rate	-	>98%	-	>95%

BSC - Based Corporate Sustainable Development Strategies and Implementation.

Construction of the Four - Dimensional Strategy.

Based on cases and practices, a four - dimensional strategy system is constructed:

Financial Dimension: Focus on indicators such as Sustainable Return on Investment (SROI) and the proportion of revenue from green businesses. Balance short - term and long - term value, and integrate Environmental, Social, and Governance (ESG) factors into investment decisions.

Customer Dimension: Pay attention to indicators like the proportion of revenue from green products and customer loyalty. Lead green consumption through sustainable products and services.

Internal Process Dimension: Set indicators including the reduction rate of energy consumption per unit of product and the proportion of green procurement. Optimize operations and build a green value chain.

Learning and Growth Dimension: Establish indicators such as the coverage rate of employee training on sustainable development and the number of innovation proposals. Cultivate sustainable organizational capabilities and culture.

Implementation Path and Key Factors.

The implementation must follow the principles of strategic consistency, balance, measurability, and operability. The steps include: mapping the strategy map, setting goals and indicators, establishing a data collection mechanism, and conducting continuous optimization (PDCA cycle). The key success factors include: leadership from top management, cross - departmental collaboration, employee incentives, and a dynamic adjustment mechanism.

Summary and Conclusions.

Through theoretical analysis and case verification, this study systematically expounds the application value and practical path of the Balanced Scorecard (BSC) in corporate sustainable development management. The research shows that the four - dimensional framework of BSC can effectively integrate economic, environmental and social goals, transform macro - level sustainable development strategies into operable and measurable specific actions, and help enterprises balance short - term performance and long - term value.

Cases of Intel and HiSilicon show that the implementation of BSC not only brings significant financial benefits (such as the improvement of green investment return rate and cost reduction), but also has a positive impact on customer relationships (such as satisfaction and brand value), internal processes (such as energy consumption reduction and efficiency improvement) and organizational capabilities (such as employee participation and innovative culture). These results verify the systematicness and practicality of BSC in promoting corporate sustainable development.

Based on the research findings, this paper constructs a complete BSC sustainable development strategy system and implementation path, providing theoretical guidance

and practical tools for enterprises. However, the research also has certain limitations, such as a limited number of cases, insufficient industry coverage, and failure to fully consider the differences in BSC application under different cultural backgrounds.

Future research can conduct in - depth exploration in the following directions: first, combine technologies such as big data and artificial intelligence to develop an intelligent BSC dynamic management system, so as to improve the efficiency and accuracy of data collection and analysis; second, carry out cross - industry and cross - country comparative studies to identify the applicable conditions and improvement strategies of BSC in different scenarios; third, deeply explore the integration path of BSC with emerging trends such as ESG investment and carbon neutrality, so as to provide forward - looking guidance for enterprises to cope with future challenges.

In conclusion, as a powerful strategic management tool, the Balanced Scorecard can provide systematic support for corporate sustainable development. Through scientific design, effective implementation and continuous optimization, enterprises can integrate sustainable development into all aspects of organizational operations, and finally achieve the coordinated development of economy, environment and society.

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