

Research on Green-Supply-Chain Performance Evaluation System——Based on the Perspective of Corporate

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Abstract: With the rapid development of the economy, the ecological treats and environmental pollution are becoming more and more serious, which directly restricts the sustainable development of enterprises. Under such a macro background, the green supply chain with the green concept as the core emerges as the times require. This paper starts from the main stakeholders of the company's six main stakeholders, namely shareholders, creditors, employees, suppliers, customers, government and the public, and combines the four dimensions of the traditional balanced scorecard to build benefits. Relevant person's corporate social responsibility performance evaluation index system.

1. Introduction

Compared to the traditional supply chain, the green-supply-chain considering green throughout the entire supply chain. It not only reduces the environmental impact of the production process, but also reduces the resource consumption in the entire supply chain, thereby enhancing the core competitiveness of the enterprise and helping the company to develop better. At present, the scientific and complete evaluation system for green-supply-chain management is relatively scarce. This paper determines the stakeholders of the enterprise from the perspective of social responsibility. By dividing and improving the balanced scorecard, a set of applicable green supply chain performance evaluation system is established.

2. The analysis of major stakeholders in the green-supply-chain

The scope of corporate social responsibility depends on the main stakeholders of the company. In addition to meeting their wishes and requirements, the main responsibility of the company for these stakeholders is to achieve stakeholder satisfaction with the company. Shareholders, should be one of the stakeholders. However, modern society has higher and more profound requirements for corporate social responsibility. Creditors, suppliers, customers, employees and even the government and the public need companies to take up social responsibilities.

2.1 Shareholders

Shareholders are pursuing for higher returns. The core intelligence of the company's management lies in providing shareholders with higher profits, ensuring the interests of shareholders in the enterprise and the preservation and appreciation of various assets. Therefore, the management authorities are responsible for disclosing the information of the company's operations, accepting shareholders' supervision, and safeguarding shareholder income and profit distribution.

2.2 Creditors

When the company develops to a certain scale, debt management is almost an inevitable choice. The creditor's consideration of the enterprise mainly includes the following points: repayment ability, interest income and the social reputation of the enterprise. Therefore, it is especially important for enterprises and creditors to form a good situation of mutual trust, stable cooperation and creating a win-win situation.

2.3 Employees

The enterprise is the cell that constitutes the society, and the employee is the cell that constitutes the enterprise. On the one hand, the social responsibility of enterprises to employees should guarantee the employment and employment rights of employees. On the other hand, enterprises must also undertake certain agreed obligations: including employment policies, incentives for employees, and employment of disabled persons.

2.4 Customers

The social responsibility of enterprises for customers is generally reflected in the credibility, quality of the main products and services. For the enterprise, the primary responsibility is to ensure the quality of its products. To ensure that the company's products are of high quality and provide satisfactory services, there is no fraud and profiteering. A green strategic partnership with customers will be carried out to transform the processing of upstream and downstream wastes and the recycling of products.

2.5 Suppliers

Suppliers supply raw materials and energy to the production of the company and are the primary link in the green supply chain. Through supplier selection, they help enterprises to transform their entire supply chain. At the source, they begin to reduce procurement costs, reduce production costs, and implement green production and management.

2.6 Government and the Public

The government department is the core of green management. Compared with other stakeholders, it plays a pivotal role in the formulation of laws and regulations. The scope of corporate responsibility for the government is roughly to comply with laws and regulations, as well as various environmental protection policies, to avoid environmental violations and environmental penalties. The public includes surrounding residents, the media and private environmental organizations, and is the promoter and supervisor of green production.

3. The evaluation index system based on balanced scorecard

Based on the above analysis of the main six stakeholders of the company, we embed the green supply chain performance evaluation index dimension into the evaluation system of the balanced scorecard, and comprehensively summarize and improve the four dimensions of the balanced score card.

3.1 Financial Dimension

This dimension mainly involves stakeholders as shareholders and creditors. The consideration of this dimension mainly includes four aspects of ability: profitability, solvency, operational ability and growth ability. In the green supply chain performance evaluation, "revenue" has been given a new meaning. The "revenue" here takes into account the green input factor, so the proportion of environmental protection investment, the proportion of environmental protection improvement investment, etc.

3.2 Customer Dimension

The main stakeholders in the customer dimension include consumers and recycling companies that recycle and recycle waste. Under the advocacy of green, more and more customers have put forward green requirements, such as products meeting the specific requirements of the ISO: 9001 standard. In this dimension of evaluation, from the perspective of product and service, it not only evaluates the quality and market conditions of the company's main products and additional output, but also whether it meets customers' environmental protection needs, follow-up after-sales and other The processing of the situation is evaluated.

3.3 Management Dimension

The external process dimension is mainly related to the supplier, and the supply chain module involved is the procurement module. This link, as the initial link of the supply chain, plays a pivotal role in the operation of the entire supply chain. The internal process mainly involves production, distribution and feedback activities, and is the core of the production and operation of the entire enterprise. Since the company provides products and services, the quality of the products runs through all aspects of the company. The scarcity and limited nature of resources require enterprises to make maximum use of various resources, coordinate personnel and materials, and make the most reasonable arrangements to create a competitive advantage.

3.4 Growth Dimension

When designing specific indicators of this dimension, it is necessary to continuously learn and innovate in view of the company's fierce competition for sustainable operation and sustainable development. The stakeholders involved in this dimension contain the widest range. The most important thing is the employees, both ordinary employees and R&D personnel. In addition, the government public has played an important role in the sustainable development of enterprises. The stakeholders involved are employees, government and the public.

4. Index system of green-supply-chain performance evaluation

In summary, the green supply chain performance evaluation index dimension is embedded in the balanced scorecard evaluation system. After comprehensive induction and improvement, its performance evaluation index system is shown in the following table 1.

Table.1. Table of green-supply-chain performance evaluation index system

Dimensions	Key Indicator Layers	Target Layer Index
Financial Dimensions	Profitability	ROA; ROE; OL
	Solvency	Current ratio; Quick ratio; Cash ratio; Assets and liabilities
	Operation Capacity	Total asset turnover; Accounts receivable turnover
	Growth Ability	Sales revenue growth rate; Supply chain management cost ratio; Environmental investment rate; Total asset growth rate
Customer Dimensions	Products	Rate of qualified products; Product return rate; Product repair rate; Customer satisfaction
	Services	Complaint acceptance rate; Complaint response time; Green product recognition; Customer green recognition
Management Process Dimensions	Purchasing	Purchasing cycle time; Green supply chain operational efficiency; Green supply chain information sharing ratio; Waste recycling ratio
	Producing	Average production capacity
	Delivery	On-time transportation rate
	Feedback	Decision execution ratio; Crisis public relations ability
Growth Dimensions	Creativity	New product investment ratio; Researcher ratio; Ratio of Market forecast accuracy
	Development Ability	Training time growth ratio; Environmental promotion training costs; Environmental protection; Environmental investment growth ratio; Cyclic resource utilization

5. Conclusion

In the process of implementing a green supply chain, only the evaluation of supply chain performance can clarify its own problems and make further decision-making strategies. The green supply chain performance evaluation is a new research topic, and there is no set of scientific

theoretical system. At the same time, many factors are involved in the performance evaluation of green supply chain, so the process of performance evaluation is also quite complicated.

This paper uses the Balanced Scorecard to establish a green supply chain performance evaluation index system based on the four dimensions of finance, customer service, internal operations, learning and development. This paper has improved and supplemented the inadequacies of the traditional scorecard to a certain extent, and played a certain guiding significance for comprehensively evaluating the performance of the enterprise green supply chain.

In this paper, the specific operational level, the weight of each indicator dimension and the evaluation method has not been involved. In the subsequent practical operations, quantitative indicators such as AHP can be considered for input-output or other methods of evaluation. The design of a green supply chain performance evaluation system model covering major stakeholders has certain universality and has reference significance in different industries.

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