

# *Improvement of BSC Evaluation System under the Theory of "Triple Bottom Line"*

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**Keywords:** triple bottom line, BSC, performance evaluation.

**Abstract:** With the sustainable development ability and the maximization of multi-stakeholder value gradually replacing the past enterprise value concept, the traditional performance evaluation model and index system need to be improved. Based on the analysis of the current performance evaluation index system, this paper introduces the BSC evaluation index system and its main viewpoints on improvement. Referring to the "triple bottom line" theory under the concept of sustainable development, this paper improves the BSC system and integrates the concept and content of sustainable development into the BSC's suggestions and methods to meet the needs of future enterprise performance evaluation.

## **1. Deficiency of traditional performance evaluation system**

The traditional performance evaluation indicators in China are mainly based on the realization of the economic value of enterprises and reflect the business performance of enterprises through financial indicators from the aspects of debt repayment, profit and operation. However, with the development of economy, the original evaluation system is no longer applicable. Its main shortcomings include: paying too much attention to financial indicators and ignoring non-financial indicators; paying only attention to the evaluation from the perspective of investors, creditors and operators; not reflecting the requirements of saving resources and protecting the environment.

Aiming at the many problems existing in the traditional indicator system, many scholars in China are looking for a new and more scientific and reasonable evaluation system. Among them, the most concerned is the BSC (Balanced Scorecard) indicator system.

## **2. BSC performance evaluation index system and its improvement viewpoint**

BSC is guided by corporate strategy. The basic framework consists of finance, customers, internal business processes, learning and growth. Compared with the traditional DuPont model evaluation system, the BSC has made a targeted offset. However, the BSC system also has some application deficiencies: First, in the creation and quantification of indicators, enterprises must be able to accurately determine the weight of each indicator, which is very high for enterprise information and feedback systems. Secondly, the indicators are not concentrated. If we want to

integrate reasonably, the weight problem is difficult to solve. Thirdly, the indicator needs to be evaluated in multiple layers. The required data is also multi-faceted and the cost is relatively high. Fourth, the determination of non-financial indicators is very subjective, and such a complicated system also has difficulty in operation. Fifth, although BSC considers external correlation to some extent, but only limit the scope of external stakeholders to employees and customers. The mainstream idea is still to evaluate the ability of enterprise entities to realize their own self-economic value, while ignoring the realization of their social values and ecological environment values.

### **3. Improvement of BSC Based on "Triple Bottom Line"**

#### **3.1 The "Three Bottom Line" Theory**

The "triple bottom line" theory is a new performance evaluation model that considers the economic, ecological, and social performances and considers the value realization of stakeholders across time and space. Under this kind of evaluation mode, in order to maximize the overall value of the enterprise and the ability of sustainable development, we should pursue the comprehensive coordination and sustainable development of economic performance, ecological performance and social performance. Among them, economic performance mainly reflected by economic indicators such as EVA and net profit. Ecological performance indicates that the ecological wealth created by an enterprise in order to maintain and enhance the ecological balance in a certain period of time. Social performance refers to the social value created by enterprises in fulfilling their social responsibilities within a certain period of time, mainly reflected by social evaluation indicators. The "triple bottom line" model is a performance evaluation model that comprehensively considers the comprehensive performance of enterprises, and it is more suitable for the needs of economic development.

#### **3.2 Improvement of BSC System under the Theory of "Triple Bottom Line"**

First, based on the "triple bottom line" concept, the strategic arrangement of the company in terms of customers will not only affect its economic performance, but also influence its ecological and social performance through customers and some external behaviors. Therefore, the improved BSC system not only retains the market share, new customer increase rate, customer satisfaction that the BSC system already has in order to evaluate its economic performance, but also introduces environmentally relevant ISO14000 certification and The "green marketing" ratio and other indicators that reflect the ecological performance of the enterprise, as well as indicators such as the level of corporate integrity, the number of disputes with customers, and the social effects of advertising, are used to measure the social performance of the enterprise. Secondly, under the concept of "triple bottom line", the learning and growth of enterprises is based on the higher requirements of comprehensive improvement of triple performance, which takes into account the overall growth of enterprises and their related stakeholders. Therefore, in terms of learning and growth, the new system introduces ecological performance evaluation indicators such as the proportion of research and development funds for environmental protection and energy conservation technologies and the cost of introducing energy-saving equipment. At the same time, it also introduces indicators such as wage growth rate, training fee and operating income, etc. The evaluation of employee benefits and growth achieves the goal of measuring corporate social performance. Third, for the internal process, the new system not only introduces indicators such as resource utilization rate and waste disposal rate, but also reflects the realization ability of the enterprise's ecological performance by measuring the resource consumption and the treatment of

“three wastes” in the production and operation process of the enterprise. It is also possible to use indicators such as the customer complaint rate to reflect the extent to which the company influences the social environment in terms of employees and customers in the internal business process. Finally, under the concept of “triple bottom line”, the financial operation of the company is no longer the only goal to satisfy the interests of shareholders, but also to meet the interests of the employees within the generation and the interests of future generations, to meet environmental interests and social interests. Therefore, in the new system, the financial indicators of the original BSC system are combined with EVA and other value evaluation indicators to measure the economic performance of the enterprise. For the ecological performance and social performance of the financial aspect, it is evaluated through indicators such as environmental protection and greening expense ratio, taxation, and public welfare contribution rate. In this way, both the strategic overall as well as the specific indicators have achieved the successful integration of the ecological performance and social performance influencing factors into the BSC indicator evaluation system, and completed the organic combination of the “triple bottom line” theory and the BSC system.

Table 1 BSC evaluation system integrating "triple bottom line"

Strategic project	Economic performance	Ecological performance	Social performance
Customer	Market share; New customer increase rate; Customer satisfaction	ISO14000 certification; Green marketing ratio; Product packaging recovery rate	Enterprise credit rating; Number of disputes with customers; Advertising social effect
Learning and growth	Employee satisfaction; Employee retention rate; New product development success rate	Energy-saving equipment introduction cost; The proportion of energy-saving technology research Energy saving system design investment	Wage growth rate; Average training time; Corporate culture penetration
Internal Process	Rejection rate; Product cost rate; After-sales troubleshooting rate	Resource utilization Average resource profit margin; Waste disposal rate	Basic management level; Customer complaint feedback time; Customer complaint rate
Finance	Return on investment; EVA; Accounts receivable turnover	Environmental cost input ratio; Greening facilities capital investment ratio	Cumulative public welfare contribution ratio Donation as a share of income; Employee salary delinquency rate

#### 4. Conclusions

Based on the shortcomings of the traditional performance evaluation system, this paper proposes an improved scheme that combines the “triple bottom line” theory based on the sustainable

development concept with the BSC system. It can be said that the introduction of the “triple bottom line” balance concept not only broadens the concept of corporate performance, but also opens up new research directions for the BSC system. For the improved method proposed in this paper, there are still some problems in the actual operation. For example, although the concept of “triple bottom line” was introduced into the construction of the BSC system, there are still no scientific principles or standards for the four strategic perspectives that attribute ecological performance and social performance indicators to the BSC. The diversity of enterprise conditions and the complexity and change of the environment also make it difficult to design the weights between performance indicators. Although the AHP method and the KPI method can solve the weight problem from a certain angle, they all have shortcomings. It requires specific analysis of specific situations. How to reasonably solve the problem of weight between multiple performances and performance indicators in combination with the concept of sustainable development and the “triple bottom line” will be our further research goal.

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